

T.C.
MARMARA ÜNİVERSİTESİ
AVRUPA BİRLİĞİ ENSTİTÜSÜ
AB SİYASETİ VE ULUSLARARASI İLİŞKİLER ANABİLİM DALI

**EUROPEANIZATION OF ENVIRONMENTAL POLICY IN
TURKEY**

DOKTORA TEZİ

HAKAN CAVLAK

İSTANBUL – 2010

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Danışman: DOÇ. DR. ÇİĞDEM NAS

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Avrupa Birliği Enstitüsü

ONAY SAYFASI

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ABSTRACT

The European Union has impact on both members and candidate countries in various ways; it affects their economies, politics, social and institutional structures. The European Union sometimes deliberately affects the members or candidate countries through its political, administrative or legislative tools and sometimes the countries just constrained to come in line with the general policies and practices in the European Union. In recent years, the “Europeanization” approach is quite frequently used to explain the European Union effect.

The impact of the European Union on members and candidate countries is displayed sometimes as little arrangements and sometimes it causes dramatic changes. Europeanization helps to explain the reasons of the change; however it lacks to explain the extent of the change and thus requires the assistance of well rooted theories of political science and sociology. One of these theories is “Institutionalism”. As being a long standing and divaricated theory it explains the effects of institutions [formal or informal social structures of norms, rules and practices that regulate (constrain or enable) the course of actions among actors in a certain scope and domain] on decision making and practices. On the other hand, change or resistance to change is also within the scope of this theory.

In this dissertation, the impact of the European Union on environmental policy in Turkey and the change in environmental policy caused by this impact is researched. The reason for choosing the environmental policy as a research area is the extensive misfit between Turkey and the European Union in this field, which facilitates to analyze the impact of the European Union and the change occurred after this impact. In order to realize this research, firstly a theoretical framework is drawn and then the environmental policies of Turkey and the European Union are evaluated. Furthermore, the differences between Turkey’s and European Union’s environmental policies are assessed and finally the demands and expectations of the European Union and Turkey’s responds are analyzed in the light of Europeanization and Institutionalism.

ÖZET

Avrupa Birliđi, hem üye ülkelere hem de aday ülkelere pek çok yönden etki etmektedir. Onların, ekonomilerini, politikalarını, sosyal ve kurumsal düzenlerini etkilemektedir. Avrupa Birliđi bunu bazen bilinçli olarak kendi siyasi, idari ve yasal araçlarını kullanarak yapmakta; bazen de üye veya aday ülkeler Avrupa Birliđi genelindeki politika ve uygulamalara kendilerini uydurmak durumunda kalmaktadırlar. “Avrupalılařma” yaklaşımı Avrupa Birliđi çalışmalarında son yıllarda bu durumu açıklamak için yaygın bir şekilde kullanılmaktadır.

Avrupa Birliđi’nin üye veya aday ülkeler üzerindeki etkisi bazı durumlarda kendisini küçük düzenlemeler halinde gösterirken bazı durumlarda köklü deđişikliklere neden olmaktadır. Avrupalılařma, deđişimin nedenini açıklarken, bu deđişimin boyutlarını açıklamakta yetersiz kalmakta ve bunun için siyaset biliminin ve sosyolojinin köklü kuramlarından yardım alması gerekmektedir. Bu kuramlardan birisi de “Kurumsalcılık”tır. Oldukça eski ve çeşitli alt dallara ayrılmıř bu kuram genel olarak kurumların [belli bir alanda aktörlerin davranıřlarını düzenleyen (izin veren veya kısıtlayan) normlar, kurallar ve eylemlerden oluřan formel veya enformel sosyal yapılar. Örneđin bir ülkenin çevre politikası, yönetim anlayıřı, bir ülkedeki kadınlara karřı yaklaşım vb.] alınan kararlara ve gerçekleştirilen uygulamalara etkisini açıklamaya çalıřır. Ancak, kurumlardaki deđişim ve deđişime direnme de bu kuramın ilgi alanı içine girer.

Bu tezde, bir aday ülke olan Türkiye’nin çevre politikasına Avrupa Birliđi’nin etkisi ve bu etkinin neden olduđu deđişimin boyutları araştırılmıřtır. Bir araştırma alanı olarak çevre politikasının seçilme nedeni, bu alanda Türkiye ve Avrupa Birliđi arasında ciddi uyumsuzluklar olmasıdır ki bu da Avrupalılařmanın etkilerinin ve onun doğurduđu deđişimin daha iyi görülmesine ve araştırılmasına olanak sağlamaktadır. Bu arařtırmayı gerçekleřtirmek için önce kuramsal bir çerçeve çizilmiř, daha sonra sırasıyla Türkiye’deki ve Avrupa Birliđi’ndeki çevre politikaları incelenmiřtir. Sonrasında, Türkiye ve Avrupa Birliđi çevre politikaları arasındaki farklılıklar araştırılmıř ve bu farklılıkların giderilmesi için Avrupa Birliđi’nin talep ve beklentileri ile Türkiye’nin bunlara karřılıđı “Avrupalılařma ve Kurumsalcılık” yaklařımları ışığında analiz edilmiřtir.

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ABBREVIATIONS

APSA	Authority for Protection of Special Areas
CAP	Common Agricultural Policy
CDM	Clean Development Mechanism
CFC	Chlorofluorocarbon
CITES	Convention on Trade in Endangered Species
CoM	Council of Ministers
CoP	Conference of Parties
DG	Directorate General
DSİ	Devlet Su İşleri (State Hydraulic Works)
EAP	Environmental Action Plan
EC	European Community
ECHA	European Chemicals Agency
ECJ	European Court of Justice
EEA	European Environment Agency
EEC	European Economic Community
EIA	Environmental Impact Assessment
EIONET	Environment Information and Observation Network
EMU	European Monetary Union
EP	European Parliament
EPASA	Environmental Protection Agency for Special Areas
EPE	European Partners for the Environment
EU	European Union
FAI	Free Access to Environmental Information
FYDP	Five Year Development Plan
GATT	General Agreement on Tariffs and Trade

GDF	General Directorate of Forestry
GHG	Green House Gases
GMO	Genetically Modified Organism
GNP	Gross National Product
HI	Historical Institutionalism
IEAS	EU Integrated Environmental Approximation Strategy
IPPC	Integrated Pollution Prevention and Control
LIFE	Financial Instrument for the Environment
LOC	Logic of Consequentiality
MEP	Member of European Parliament
MoE	Ministry of Environment
MoEF	Ministry of Environment and Forestry
MoH	Ministry of Health
NEAP	National Environmental Action Plan
NGO	Non-governmental Organizations
NPAA	Turkish National Program for the Adoption of Acquis
PDA	Path Dependency Approach
QELRC	Quantified Emission Limitation and Reduction Commitment
QMV	Qualified Majority Voting
RCI	Rational Choice Institutionalism
REACH	Registration, Evaluation, and Authorization of Chemicals
SDS	Sustainable Development Strategy
SEA	Single European Act, Strategic Environmental Assessment
SI	Sociological Institutionalism
SIS	State Institute of Statistics
SPO	State Planning Organization
TSMS	Turkish State Meteorological Service

UNFCCC **United Nations Framework Convention on Climate Change**

UWWT **Urban Waste Water Treatment**

INTRODUCTION

The process of Turkey's accession to the EU has been pursued since the initial application for association in 1959. The integration process and the relationship between Turkey and the EU have usually been remittent all along. Most of the 70s and 80s were the times of inertia in Turkey-EU relations. However, since late 1980s Turkey has demonstrated a political enthusiasm for integration with the EU and, acted more willingly to fulfill the requirements of this objective. In 1990s relations gained acceleration with the completion of Customs Union. Although after not being announced as an applicant country in Luxembourg Summit of 1997, to some extent, the relations got frozen. In the Helsinki Summit of 1999, Turkey has been announced as an applicant country and EU and Turkey got closer and their relations became more institutionalized. Since the Brussels Summit of 2004, where the EU granted Turkey the date for accession negotiations, the relationship between Turkey and the EU has taken the current shape.

Turkey, since Helsinki Summit but especially after Brussels Summit of 2004, is dealing with the issue of integration with the EU acquis, which could be found in 35 topics of accession negotiations. It is seemed that in most fields; Turkey's legal structure, methods of application and determination to apply those legal rules and Turkey's institutional structure are not quite compatible with that of the EU's. In some fields this incompatibility seems to be easily overcome, however in most areas the incompatibility seems very hard to be carried out.

The field of environment is the one in which the issue of harmonization seemed quite tougher than most of the other fields. Turkey's integration with the EU environmental policy appears as a difficult issue to be accomplished since; firstly, until recent times the concept of environment itself has not been perceived as a problem to be dealt by most of the world, even it is so, each country have developed their own methods and instruments to struggle with the environmental problems. Secondly, the rapid industrialization and urbanization in Turkey since 1960s caused pollution and thus, environment recognized as a problematic area after 1970s. However, it has not been taken seriously by Turkey until recent times. Moreover, the advanced sensitivity and positions about environmental problems of some European states; and their impact on the EU to promote high environmental standards make the integration

issue in environmental policy more complicated for Turkey. Additionally, the issue of environment is quite an expensive policy field. To sum up, it can be argued that there has been a major divergence between European environmental policy and standards and that of Turkey's; and harmonization in this field requires a hard work of reformation for Turkey in the legal and institutional structure. Furthermore, there is a strong need of enthusiasm and financial resources in Turkey for proper implementation of changes made in legal and institutional structures. In order to analyze the impact of Europeanization on institutional change and the extent of institutional change in Turkey; the main question designed in this dissertation is: *'Does Europeanization cause any institutional change in domestic structures of a candidate country?'* *'The case of environmental policy in Turkey'* is chosen to be researched for answering the question. In order to make the research more systemically, five secondary questions have been formulized as:

- What is Europeanization?
- What is institutional change?
- What are the main characteristics of European Environmental Policy?
- What are the elements and characteristics of the environmental policy in Turkey?
- What is the impact of Turkey's accession process to the European Union on environmental policy in Turkey?

So to say, the main objective of this dissertation is *'analyzing the institutional change occurred in environmental policy in Turkey as a consequence of Europeanization.'*

The hypothesis of this dissertation is:

- Although, the EU had impact on Turkey in revising its environmental legislation and creation of new policies; the effects of Europeanization can hardly be found in Turkey's implementation of the revised legislation and actualizing the newly formed and re-formed policies.

In this dissertation the impact of European Union on environmental policy in Turkey and policy processes would be evaluated. Its main focus is on the process of European policy implementation at the national level and policy changes following from this. Therefore, the patterns of policy change and administrative transformation at the national level are the

dependent variable to be explained. The details of the supranational policy formulation processes are not within the scope of this study. However, this does not mean a total exclusion of supranational policy formulation from the analysis. Rather it has to be considered in order to get a full understanding of the concrete content and the administrative implications of the policy. Considering the EU policies as independent variable into the national system allows one to focus on the distinctive impact of national factors in shaping domestic responses to European demands.

As mentioned above a significant characteristic which distinguishes this dissertation from other researches on Europeanization is its elaboration on domestic arrangements. They are considered as the dependent variable which is affected by European policies. This seems to be contrasted with established concepts of Europeanization, which are basically dealt with developments at the supranational level. Generally the traditional approaches focus on the extent to which domestic conditions influence the outcome of European policy making and institution building. Without neglecting the causal relationship, focusing on domestic changes assesses the influence of already-established European arrangements at the national level.

This dissertation consists of three core chapters. The first chapter draws a theoretical framework for the dissertation and reflects the tools which would be used in answering the research questions and proving the hypotheses. Basically, the Europeanization approach and new institutionalism are analyzed for providing an explanation of institutional change. The second chapter would deal with the dependent and independent variables in this dissertation. Namely, the European Environmental Policy as the source of change; and the environmental policy in Turkey as being the subject to change would be presented. The third chapter would analyze the process of institutional change in Turkish environmental policy. The European impact on Turkish environmental policy and responses of Turkey would be assessed in this chapter.

In the first chapter, the two broad strands in traditional European integration research which are: international relations and comparative politics are demonstrated.¹ The basic focus of both strands of research is on supranational institution-building and policy making.

¹ Simon Hix, 'The Study of the European Community: The Challenge to Comparative Politics' *West European Politics* 17 (1), 1 – 30, 1994; Markus Jachtenfuchs and Beate Kohler-Koch (eds) *European Integration* Opladen: Leske&Budrich, 1996.

Consequently, they provide limited insights when it comes to the impact of European integration at the domestic level. Since the basic concern of these studies is related to developments at the supranational level, the impact of these developments on domestic structures and processes is hardly subject to consistent analysis. Domestic structures are not considered as dependent variables, but are analyzed as factors which affect the interactions between the supranational and domestic levels. For the purpose of this study, however, these approaches seem to be of only limited relevance, since they contain no theoretical generalizations that allow for hypothesizing on the scope and mode of domestic policy and administrative change. First, traditional integration research is not directly concerned with domestic policy and institutional change, but with potential power redistribution between domestic and European actors.² Second, although the redistribution of power can be seen as a basic condition for subsequent policy and- institutional change, the above-mentioned concepts do not specify general conditions under which such changes actually take place.³ A third aspect which restricts the relevance that these concepts have to this study is their focus on political rather than administrative institutions and actors.⁴ Although political and administrative changes might be closely related, administrative changes are only indirectly integrated into the analysis.

Risse's conceptualization would be taken as the main reference point for Europeanization in this study which is: "emergence and the development at the European level of distinct structures of governance, that is, of political, legal, and social institutions associated with political problem solving that formalizes interactions among the actors and of policy networks specializing in the creation of authoritative European rules".⁵ Europeanization is understood as a process of institution-building at the European level in order to explore how this Europeanization process impacts on the member states.

There are two conditions for expecting domestic changes in response to Europeanization: First Europeanization must be 'inconvenient', which implies a 'misfit' or 'incompatibility' between European level processes, policies and institutions, on the one hand, and domestic

² Ibid.

³ Ibid.

⁴ Ibid.

⁵ Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, "Europeanization and domestic change: Introduction" In *Transforming Europe : Europeanization and domestic change.*, eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y.: Cornell University Press, 2001, p. 3.

level processes, policies and institutions on the other.⁶ This degree of misfit constitutes an adaptational pressure which leads to a necessary condition for expecting domestic change. The second condition is a range of facilitating factors responding to the adaptational pressures.⁷ However, for methodical reasons the research is limited to framework of misfit and adaptational pressure; the analysis of facilitating factors are excluded from the dissertation. Because, each facilitating factor requires a special and detailed research which would expand the physical volume of dissertation extraordinarily and consume the time necessary for main research. Nonetheless, the impacts of facilitating factors are demonstrated briefly within the first chapter which deals with the theoretical insights.

The 'goodness of fit' between the European and the domestic level determines the degree of pressure for adaptation generated by Europeanization on the member states: "The lower the compatibility between European and domestic processes, policies, and institutions, the higher the adaptational pressure."⁸ In general, if European norms, rules, and the collective understandings attached to them are largely compatible with those at the domestic level, they do not give rise to problems of compliance or effective implementation. In brief, misfit and resulting adaptational pressures constitute the starting point for any causal mechanism discussed in the literature.

Consequently, and very briefly, the concept of Europeanization in this dissertation is used as 'the effect of European Integration and policies on national policies', not as policy-making or institution-building at supranational level. In other words, Europeanization would be an already-established independent variable which has a direct impact on national policies. As our case study would be based on environmental policy in Turkey, the effect of the Europeanization Process will be much limited especially compared to members of the EU.⁹

The case analyzed to demonstrate the argument is derived from the post- Helsinki reform process in Turkey. Thus, in this study the unit of analysis is a specific country. This study focuses on a case within that unit: environmental policy. Before discussing the case, it is important to justify the selection of the unit of analysis.

⁶ Tanja A Börzel and Thomas Risse-Kappen. "Conceptualizing the domestic impact of Europe" In *The politics of Europeanization.*, eds. Kevin Featherstone, Claudio M. Radaelli. Oxford: Oxford University Press, 2003, p. 58

⁷ Ibid.

⁸ Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, op. cit. 2001, p. 3..

⁹ Thomas Diez,, Apostolos Agnantopoulos and Alper Kaliber, 'Turkey, Europeanization and Civil Society' *South European Society and Politics* 10 (1), pp. 1-15, 2005.

The reform process in Turkish Republic, the unit of analysis, is important for theorizing two processes: institutional change and the Europeanization process. The speeding up of the European integration process and large scale Europeanization efforts in Central and Eastern European countries in the 1990s; increased academic interest in the ‘Europeanization’ process as a widespread political phenomenon. However as Knill and Lehmkuhl argue “...notwithstanding a growing number of studies explicitly concerned with the Europeanization of domestic institutions, we still lack consistent and systematic concepts to account for the varying patterns of institutional adjustments across countries and policy sectors”.¹⁰ Olsen also addresses the deficiencies in Europeanization studies, stating that ‘...most studies of Europeanization are of recent origin and there have as yet been few systematic attempts to map and compare its different uses. Efforts to account for the dynamics of ‘Europeanization’ are scarce and the evidence is uneven and often contested.’¹¹ It appears that one source of these weaknesses is that this literature does not provide a strong theoretical framework of institutional change that can travel across different contexts and issue areas. What we need for a better understanding of the Europeanization process in general is a model of institutional change rather than a specific theory of the Europeanization process. In this study, ‘Europeanization’ refers to the ‘domestic impact of European institutions and practices’, the European Union (EU) in particular. The process of Europeanization leads to significant changes in domestic politics, changing both political structures (e.g. institutions) and policies. Therefore, it would be appropriate to frame Europeanization as a ‘set of ordinary processes of change’.¹² Then, understanding Europeanization requires an understanding of the structure and dynamics of each change processes.

Additionally, the effects of Europeanization can be both direct and indirect. Direct impacts require institutional and structural reform or change to conform to EU-level norms and standards. Examples such as the EMU, Stability and Growth Pact, ECJ jurisdiction, and many elements of the single market regime tend to have rather strict and universal implications for

10 Christoph Knill and Dirk Lehmkuhl. “How Europe Matters, Different Mechanisms of Europeanization”, Working Paper European Integration Online Papers (EIoP) 3:7, 1999, p.1.

11 Johan P. Olsen, “The Many Faces of Europeanization”, *Journal of Common Market Studies* 40(5):921–52, 2002, p. 923.

12 *Ibid.*

member states.¹³ However, even in these cases there are allowable or perceivable variances from EU standards suggesting a far more ‘soft’ approach to Europeanization.¹⁴

More interesting and perhaps more important are the indirect effects of European integration and governance. These are effects on policy styles and norms that while not formally or directly challenged by EU directives or action are nonetheless influential in reshaping and altering existing national patterns of political behavior. European integration and governance has created new divisions within member states’ electorates, parties, interest associations, social groups, and other actors. Europeanization may also alter the types of issues and priorities of issues within domestic political contexts. Further, the constant and repetitive constitution of EU-national relations creates a pattern of expectations and behavior that national actors socially learn and begin to replicate.¹⁵ Hence Europeanization is not limited to the formal and strictly institutional, it is also a source or normative and structural change in domestic political systems.

As Hix and Goetz argue, Europeanization has two types of potential impact upon domestic institutions and private and public actors:

- (1) the delegation of policy competences to the European level and the resulting political outcomes constrain domestic choice, reinforce certain policy and institutional developments, and provide a catalyst for change in others; and
- (2) the establishment of a higher level of governance institutions provides new opportunities to exit from domestic constraints, either to promote certain policies, or to veto others, or to secure informational advantages.¹⁶

The Europeanization literature treats European integration as the independent variable and state-level political institutions and processes as the dependent variables. Clearly in reality,

¹³ Simon Hix and Klaus H. Goetz, “Introduction: European integration and national political systems” *West European Politics* 23, (4), 2000, p. 1; Robert Harmsen. *The Europeanization of National Administrations: A Comparative Study of France and the Netherlands Governance: An International Journal of Policy and Administration* Vol. 12, No. 1, 1999, p. 95

¹⁴ Gerda Falkner, *The Europeanization of Austria: Misfit, adaptation, and controversies. European Integration Online Papers* 5, (13), 2001. <http://eiop.or.at/eiop/texte/2001-013a.htm>; Robert Harmsen, op. Cit. 2000

¹⁵ Thomas Risse-Kappen, “A European identity? Europeanization and the evolution of Nation-state identities” In *Transforming Europe: Europeanization and domestic change.*, eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y.: Cornell University Press, 2001; Tanja A Börzel and Thomas Risse-Kappen. “Conceptualizing the domestic impact of Europe” In *The politics of Europeanization.*, eds. Kevin Featherstone, Claudio M. Radaelli. Oxford: Oxford University Press, 2003; Robert Harmsen, op. Cit. 2000; Ian Bache, op. cit. 2003

¹⁶ Simon Hix and Klaus H. Goetz, op. cit. 2000, p. 10

the relationship is cyclical and interdependent.¹⁷ It is important to intellectually disaggregate the ways in which European integration and governance impacts domestic political structures so as to potentially learn how such impacts may lead to change or continuity.

Europeanization is differentiated from most other European integration scholarship by attempting to understand and explain if, how, when, and to what extent European integration and governance leads to change or continuity in domestic level structures and institutions. In Hix and Goetz' terms, Europeanization is focused upon "European integration as an explanatory factor in domestic political continuity or change".¹⁸

Europeanization is a rather broad range of political, economic, and social phenomena resulting from the impact of European-level governance upon state-level governance. The range can include administrative and bureaucratic harmonization with the *acquis communautaire*, to significant limitations on executive, bureaucratic, parliamentary, or other institutional policy choice and action over issue areas, to the more significant structural change of economic, social, and political institutions and processes. Europeanization encompasses them all: policy, process, and politics.¹⁹ The common links that connect this broad range of political phenomena is that each is impacted, to some extent, by European-level patterns and structures of integration and governance.

Hence this research is attempting to measure the compatibility of the environmental policy in Turkey to the European modes of policy and policy making. Measuring compatibility of domestic structures to that of the European-level or multi-level mode governance has been a critical feature of Europeanization literature. This is an attempt to assess the 'goodness of fit' between the institutions and processes of European integration and the institutions and processes at the Turkish state level.²⁰

Risse, Cowles, and Caporaso label this as 'adaptational pressure' which they define as "the extent to which domestic institutions would have to change in order to comply with European

¹⁷ Ian Bache, "Europeanization: A Governance Approach", EUSA 8th International Biennial Conference, Nashville, 2003, p. 8; Robert Harmsen, op. Cit. 2000

¹⁸ Simon Hix and Klaus H. Goetz, op. cit. 2000, p. 1.

¹⁹ Vivien Ann Schmidt, *op. cit.* 2006

²⁰ Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, op. cit. 2001; Adrienne Héritier, op. Cit. 1999; Robert Harmsen, op. Cit. 2000, op. cit. 2003; Vivien Ann Schmidt, *Democracy in Europe: The EU and National Politics*. Oxford: Oxford University Press, 2006; Tanja A Börzel and Thomas Risse-Kappen op. cit. 2003.

rules and policies”.²¹ For Hix and Goetz, adaptational pressure is known as ‘catalyst’ in which European-level governance acts to ‘produce new institutional forms’ at the state-level.²² This fit not only applies to policy output but to institutions and other policymaking and formulating structures as well.

Risse, Cowles, and Caporaso distinguish two casual pathways in which Europeanization may exert adaptational pressure on domestic structures. First, European-level policy may lead to a misfit between EU-level rules and domestic-level regulations. These circumstances would place adaptational pressure upon domestic political and administrative structures, especially upon formal domestic institutions and governments to make specific policy changes. Second, European-level governance may exert strong adaptational pressures on embedded domestic structures that include national styles of governance and even deeply rooted understandings of identity and political behavior. These circumstances place adaptational pressure upon national norms, routines, state-society relations, and other structural features.

In cases of strong adaptational pressures due to misfits between European and domestic levels of governance, the presence or absence of mediating factors which are critical in assessing when domestic structural change or continuity should be expected. According to Risse, Cowles, and Caporaso, state-level responses to adaptational pressure is dependent upon five mediating factors: multiple veto points, facilitating formal institutions, organizational and policymaking cultures, differential empowerment of domestic actors, and learning.²³

Moreover, Europeanization would not be dealt as the only theoretical insight in this dissertation; some theoretical orientations in new institutionalist thought would also be reviewed. It is difficult to treat new institutionalism as a coherent and unified body of thought²⁴, but one can identify three main branches: ‘historical’, ‘sociological’ and ‘rational choice’ variants.²⁵ Rather than providing a detailed history of each theoretical orientation and a complete comparison of similarities and differences between them, the purpose of this study is first to make a categorization of institutionalist approaches as Institution based and agency

²¹ Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, op. cit. 2001, p. 6.

²² Simon Hix and Klaus H. Goetz, op. cit. 2000, p. 11.

²³ Ibid.

²⁴ Vivien Lowndes, “Varieties of New Institutionalism: A Critical Appraisal” *Public Administration* 74: 181-197, 1996.; Peter A. Hall and Rosemary C. R. Taylor. “Political Science and the Three New Institutionalisms” *Political Studies* 44, p. 936-957, 1996; Simon J. Bulmer, “New institutionalism and the governance of the Single European Market” *Journal of European Public Policy* 5(3): 365-386, 1998.

²⁵ Peter A. Hall and Rosemary C. R. Taylor. Op. Cit. 1996

based ones. Secondly, to show the defining principles of three main institutionalisms and look at how these different institutionalist orientations define institutions and deal with 'institutional change'. Thirdly, this dissertation discusses the difficulties and problems of these theoretical orientations in terms of theorizing institutional change and how to address those problems.

This dissertation adopts an eclectic approach in analyzing institutional change in the sense that it borrows different tools from different institutionalist orientations. Such an eclectic approach is useful, considering the fact that neither of existing institutional orientations alone is capable enough to deal with institutional change. Therefore, this study borrows from sociological, historical and rational-choice institutionalisms. An analysis of changes in structure requires paying more attention to agency. In that sense, the rational choice variant of institutionalism, which has stronger account of agency, becomes useful for analyzing change. Sociological institutionalism and historical institutionalism, on the other hand, provides useful tools (e.g. logic of appropriateness) for understanding how institutional structure shapes actors' interests and behaviors during structural changes. This is important because strategic interactions do not take place in a vacuum. Actors interact within a normative context and this normative, social context structure both these interactions and their outcomes. As a result, borrowing from these three approaches becomes a necessity in analyzing institutional change.

On the one hand, the deterministic trend of institution-based explanations was rooted in the presumption that everything could be explained by reference to institutional factors. For different levels of abstraction, such institutionalist determinism may be limited to the more remote level. This implies that from the macro-level of governing institutions we might only be able to define the range of options for sectoral adjustment, and claim that sectoral developments are constrained by the broader institutional context.²⁶ However, while restricting the range of options for sectoral change, the institution-based perspective provides no sufficient basis for explaining whether sectoral change takes place at all and which concrete option is selected.²⁷ To answer this question, we have to narrow down the level of abstraction, and rely on the agency-based perspective of rational-choice institutionalism.

²⁶ Ibid, 587

²⁷ Ibid.

The level of abstraction required to be narrowed down to agency-based approaches in those cases where the adaptational requirements emerging from European policies remain within the range of options defined by the macro-institutional context. Here, the institution-based perspective provides us with few insights about the actual occurrence and mode of sectoral changes.²⁸ To answer these questions, we have to rely on the less abstract, agency-based perspective. It is necessary to consider whether the European policies have sufficiently altered domestic opportunity structures so that national actors are able to successfully challenge the existing institutional arrangements. To what extent are domestic actors able to exploit the new opportunities emerging from European policies so as to successfully challenge the existing institutional equilibrium.

In this dissertation an institution refers to “formal or informal social structures of norms, rules and practices that regulate (constrain or enable) the course of actions among actors in a certain scope and domain.”²⁹ These formal and informal social structures should be treated as multidimensional.³⁰ ‘Normative structure’ (the core) forms the first component and includes norms, principles, values, and collective identity. Any conceptualization of the term institution excluding normative elements (principles, values, norms), such as a definition of institution as “patterned practices or practices that are routinized, typical and recurrent”³¹, would be quite problematic because then any regularity or pattern would be an institution. Goals, which form the second component, are the collective goals and the mission of the institution. In order to realize those goals, which derive from the normative basis of an institution, institutional actors may create certain instruments such as rules, procedures, policies, organizational structure, and resources. These elements form the third component of an institution.

This dissertation acknowledges the fact that institutional change is a matter of degree, but suggests that the criterion for deciding whether any shift qualifies as an institutional change should not be the degree of change (i.e. incremental or dramatic), but it should be the content

²⁸ Cristoph Knill & Andrea Lenschow, “Coercion, Competition and Communication: Different Approaches of European Governance and Their Impact on National Institutions” *Journal of Common Market Studies* Vol. 43, No. 3, 2005, p.589

²⁹ Getchen Helmke and Steven Levitsky. Informal Institutions and Comparative Politics: A Research Agenda. *Perspectives on Politics* 2(4), 2004, p. 727; John M. Carey, Parchment, Equilibria, and Institutions. *Comparative Political Studies* 33(6): 735-761, 2000.

³⁰ John L. Campbell, Institutional Change and Globalization. Princeton and Oxford: Princeton University Press, 2004, p. 36

³¹ Ibid.

of the change. In other words, one should look at the scope of change in the sense that if the shift takes place within the normative core, which forms the defining elements of an institutional setting, then one can talk about a changing institution. As Thelen suggests, “if institutions rest on and reflect a particular foundation...then they should change as a result of shifts of these underlying conditions.”³² This is a much more useful approach to institutional change. Focusing on the degree of change as the criterion for defining a change as institutional change is problematic because it is difficult to give an objective answer to the question of the degree or threshold that should be passed in order to define a change as institutional change. A better strategy, therefore, would be to focus on whether there is any change in the defining features or elements of institutions. This method, of course, does not eliminate the degree problem, but it offers a better way for deciding whether an existing institution is changing.

This dissertation focuses on primary change (shift in normative basis). It is much more engaging to analyze this type of change because primary change involves changes in the core elements of an institution: norms, values, principles and collective identity. However, shifts in the normative elements of an institution might take quite different forms. These may include “change as novelty or replacement, change as addition or subtraction, increased complexity, transformation, reversion and obsolescence”.³³ According to Holsti, ‘change as novelty or replacement’, refers to the introduction of new forms replacing old ones. ‘Change as addition or subtraction’ refers to the quantitative growth or decline of certain elements. ‘Change as increased/decreased complexity’ refers to, for instance, the expansion of the number of activities and agents; the elaboration of tasks and rules; or the expansion of the scope of activity. ‘Change as transformation’ refers to a situation in which, the old (previous principles, norms etc) is not totally replaced, but it coexists with the new ones. In this study, this type of change is labeled as ‘gradual change’. These four types of changes, for Holsti, are ‘progressive’ changes.³⁴ However change might also take place as reversion, which means movement toward more primitive forms. Finally, change as obsolescence refers to situations in which institutional practices, norms and rules become obsolete. They simply disappear rather than being replaced by something new.

³² Cited in Jeffrey Stacey and Berthold Rittberger. *Op. cit.* 2003, p. 864.

³³ Kalevi J. Holsti, *Taming the Sovereigns: Institutional Change in International Politics*. Cambridge: Cambridge University Press, 2004, pp. 12 – 13.

³⁴ *Ibid.*

This dissertation analyzes one form of ‘progressive, qualitative change: gradual change.’ The focus of this study is the introduction of new principles and norms to an existing institutional setting. Old elements may continue to exist, at least for a certain period of time, but the inclusion of new normative elements into the existing institutional structure would definitely result in a changing institution. Thus, this work is not about normative change at societal level. Rather it analyzes the transformation of normative structure at a micro level (i.e. institutional settings) and asks when and how existing institutions embody new norms, principles and values and change.

This dissertation also relies on several indirect indicators of changes in institutional norms. The following methods are used to gain a sense of the shifts in the normative basis of an institutional setting: looking at the changes in the behaviors of institutional actors, the changes in legal documents, and checking for any secondary or tertiary change in the institutional setting. In terms of the first method, since norms, which are collective understandings defining appropriate behavior and by this way, set the standards of legitimacy, have some behavioral impacts, one way of grasping changes in institutional norms would be looking at the changes in the behaviors of institutional actors.

Utilization of the Hix and Goetz and Risse, Cowles, and Caporaso frameworks seems appropriate in attempting to assess the impact of European integration upon environmental policy in Turkey. Thus, this study provides a theoretical framework of institutional change in the domestic realm and applies it to the changes in environmental policies in the Turkish political system. Turkey was recognized as a candidate state for the EU membership during the European Council Helsinki Summit in 1999. The Helsinki decision led to an extensive reform process in the Turkish domestic space. For instance, between 2002 and 2004, the Turkish parliament adopted 261 new laws, which is considered a major accomplishment of the parliament.³⁵ Thus, the post-Helsinki era in Turkey is considered an era of profound and revolutionary changes.³⁶ As a result of this reform process, several articles of the 1982 Constitution were amended. Additionally, several laws were amended or new ones were adopted since 1999. Therefore, the institutional changes brought about by this post-Helsinki reform process make Turkey an abundant source for theory development on institutional

35 Meltem Müftüleri-Baç, “Turkey’s Political Reforms and the Impact of the EU” *South European Society and Politics* 10(1):17-31, 2005, p. 28.

36 Ziya Öniş, “Domestic Politics, International Norms and Challenges to the State: Turkey-EU Relations in the post-Helsinki Era”, *Turkish Studies* 4(1):9-34, 2003, p. 13.

change. Turkey is also an interesting case for Europeanization studies. As Tanja Börzel and Thomas Risse rightly suggest, one condition necessary for domestic changes resulting from the Europeanization process is that “there must be some degree of ‘misfit’ or incompatibility between European-level processes, policies, and institutions, on the one hand, and domestic level processes, policies, and institutions, on the other. This degree of fit or misfit constitutes adaptational pressures, which is a necessary but not sufficient condition for expecting change.”³⁷ Turkey, which is considered a unique candidate for membership due to its political and cultural differences with the rest of Europe, would be an ideal case to analyze for the ‘misfit argument’ because Turkey’s differences increase the degree of ‘misfit’. Therefore, it should be expected much more adaptational pressures in the Turkish political system. In such a context, studying the Europeanization process would provide interesting insights about this process in general. Despite this, the Europeanization process in Turkey is an under-investigated issue. Even though Turkey-EU relations date back to the Association Agreement signed in 1963 (also known as the Ankara Agreement), studies analyzing the domestic impact of the EU in the Turkish context are a recent development. Thus, more theoretical efforts would not only contribute to our understanding of the reform process in post-Helsinki Turkey but also contribute to the Europeanization literature in general.

Environmental policy has often been described as one of the most regulated policies at the European Union (EU) level and one that reflects a high level of Europeanization.³⁸ It is an area where EU competencies are highly developed and at the same time high regulatory variety can be observed.³⁹ This makes environmental policy an interesting area of research for its content but also because of its rich impact at the domestic level.⁴⁰ The study of Europeanization is multi-level and inter-disciplinary by nature and what is proposed in this theoretical framework will allow reader for cross-national and cross-policy comparisons.

37 Tanja A Börzel and Thomas Risse. “When Europe Hits Home: Europeanization and Domestic Change” EUI Working Paper RSC No. 2000/56, 2000, p.1.

38 Andrew Jordan, *Environmental Policy in the European Union*. London: Earthscan Publications, 2002.

39 Christoph Knill, *The Europeanization of national administrations: Patterns of institutional change and persistence*. New York: Cambridge University Press, 2001, p. 119.

40 Christoph Knill, *op. cit.* 2001., Markus Haverland, ‘The Impact of European Union on Environmental Policies’. In *The Politics of Europeanization*, eds., K. Featherstone and C. Radaelli, 203-225. Oxford: Oxford University Press, 2003., Tanja Boerzel, ‘Towards Convergence in Europe? Institutional Adaptation to Europeanization in Germany and Spain’. *Journal of Common Market Studies* 37 (4): 573-596, 1999.

Environmental policy is one of the best-researched fields of the impact of Europeanization upon the domestic level.⁴¹ Knill identifies two reasons for selecting environmental policy as an area of research.⁴² First, environmental policy is very well developed at the EU level and a comprehensive framework of regulations that the member states are called to follow exists. Second, not only a large number of regulations exist but also a diversity of regulatory instruments and practices can be found.

This dissertation analyzes changes in a sensitive issue in Turkey: the environmental policy. Environmental Policies constitute an important part in the European Union, thus appears as to be an appropriate case for this study. First, the policy field is characterized by a high degree of Europeanization. Since, this field of policy and administration of this policy is relatively new compared to, for instance industrial or foreign policies, which makes it more open to harmonization. If the tradition in a specific policy area is not very long and deep rooted it is easy for those kinds of policy areas to be influenced by external interventions and to be harmonized with the European policies. Moreover, the environment itself needs an international even supranational understanding of policy making, since the effects of environmental disasters or mismanagement of environmental issues do not recognize national boundaries and just flow over other, maybe innocent, countries.

Second, European policies in Environmental area demonstrates a high degree of regulatory variety. Besides classical approach of regulation, which set uniform and substantive objectives, it can also be found softer forms of intervention based on “procedural regulation, self regulation, public participation and voluntary agreements.”⁴³ The level of regulatory variety would help to solidify the assessments and facilitate to make comparisons in between different mechanisms of how the EU influenced the Turkish policy. Third, environmental policy is an area where the lack of implementations seems to be the most apparent among the other European policies.⁴⁴ This makes easy to follow up if Turkey comply with the EU or resist to influences from Europe.

41 Andrew Jordan and Duncan Liefferink. *The Europeanization of National Environmental Policy: A Comparative Analysis*. London: Routledge, 2004 and Christoph Knill, *op. cit.* 2001.

42 Christoph Knill, *op. cit.* 2001, p. 119

43 Robert Harmsen. *The Europeanization of National Administrations: A Comparative Study of France and the Netherlands Governance: An International Journal of Policy and Administration* Vol. 12, No. 1, 1999, p. 95

44 *Ibid.*

In the first chapter the aim is to provide an understanding for the above mentioned theoretical concepts applied in the dissertation. Namely, the concepts of Europeanization, New Institutionalism, Institution and Institutional Change would be dealt. The chapter consists of two sections: firstly, the Europeanization approach is analyzed; secondly, institutionalism is examined.

The first section is launched by a comprehensive discussion on Europeanization of domestic politics. Discussion begins with defining basic concepts, assumptions and approaches of Europeanization literature. This is followed by an examination for determining the scope of Europeanization. After drawing a framework for it, Europeanization is analyzed, which is followed by an extensive assessment. Then, specifically, the adaptational processes in response to Europeanization are asserted and the first section is concluded with an evaluation on Europeanization of environmental policies.

Second section of theoretical framework begins with an explanation of general institutionalist approach. Subsequently, the debate about institution based and agency based approaches is presented and both of those two approaches are assessed. Then, respectively, Historical, Sociological and Rational Choice type of institutionalisms are analyzed. It is followed by a general assessment of those three institutionalisms. The level of abstraction assessed first and subsequently, methods of combining these different levels of analysis are evaluated. This section is completed with a discussion on the common meanings of institution and institutional change and what have to be understood by these terms in this dissertation. The chapter is concluded with a general assessment of the theoretical approach adopted in the dissertation.

In the second chapter, the purpose is to grasp what is subject to institutional change and what is the source of pressure that forces the subject to be changed. In other words, the independent and dependent variables would be analyzed. The chapter consists of two basic sections: Environmental policy of the EU, independent variable, is firstly elaborated; then it is followed by the demonstration of the dependent variable, environmental policy in Turkey.

The first section begins with a glancing to the development of an environmental policy in the EU. It is followed by an analysis on the instruments of change and adaptation in the EU environmental policy. Thirdly, the environmental legislation, especially environment in

primary legislation, is assessed then other regulative instruments are evaluated. Afterwards, the Environment Action Plans, as the policy tools of environmental policy in the EU, are examined. Fifthly, the European Environment Agency, as the change and adaptation agent, is observed. It is followed by the demonstration of financial instruments and decision making structures for Environmental Policy. In this section the EU is also analyzed as an emerging international change agent in the field of environment. The section is concluded with an assessment of EU Environmental Policy as a source of adaptational pressure.

The second section, as stated above, is about the environmental policy in Turkey. It starts with the historical record of Turkey in the field of environment, which covers a timeline from the late Ottoman era to contemporary Turkey. The regulative field is analyzed through assessments of environment in Turkish Constitutions, Turkish environment code and other regulative measures about environment. It is followed by the examination of the international impacts on environmental policy in Turkey. The domestic entities in Turkey about environment, which are both subject institutions and catalysts to the change and adaptation, are also reviewed. Administrative tools used in environmental policy in Turkey, which seems to be changed dramatically, are elaborated in this section; such as plans, environmental impact assessments, environmental information, environmental education, research and development and financing mechanisms. The approaches of Turkish governments to the Environment since 1980s are also evaluated, in order to demonstrate the evolution of political view on environment. The changes of state policies between 1963 and 1996 in Turkey are exhibited through an examination of five year development plans.

The chapter is concluded by asserting the areas which seems subject to change or adaptation in Turkey. In the first case, the regulative and financial aspects of environmental policies in Turkey are presented; and secondly, informative, normative and participative issues about environment are discussed.

In third chapter the process and consequences of institutional change would be analyzed. This chapter consists of three parts. The divergence between European and Turkish institutions in the field of environment is presented first and it is followed by the European pressures for adaptation to Turkey. Finally the responses of Turkey to the adaptational pressures are evaluated.

The goodness of fit between Turkish and European Environmental Policies is first discussed in the first section of the chapter. Specifically dealing with several misfit areas, such as legislative misfit, organizational misfit, participative misfit etc. make the discussion more comprehensive. After discussing the gaps between Turkish and European environmental policies, the section continues with how the EU influences Turkey in the field of environmental policy. The Progress Reports of European Commission and the Accession Partnerships issued by the European Council are analyzed as the direct sources of adaptational pressures from the EU.

The chapter is completed by the responses of Turkey to the pressures from the EU. The responses of Turkey considered as incremental to the adaptational pressure; since there have been no revolution or revolution-like actions in Turkish environmental policy. The first steps in institutional change are named as preliminary actions; since every time the objectives are set and plans are made in certain official documents before any action is taken in the field of environment. These objectives and plans are demonstrated through National Environmental Action Plan, Eighth and Ninth Five Year Development Plans, the National Programs of Turkey for the Adoption of Acquis and the EU integrated Environmental Approximation Strategy. In the final part of the section the actual proceedings made in the environmental policy of Turkey for coming in line with the European Environmental Policy are elaborated. The institutional change is approached through a three dimensional view: the change efforts are analyzed through the dimensions of the policy making, organizational structure and legislation. In order to extend the area of research a sector by sector assessment is chosen, which provides a more comprehensive and detailed view.

1. THEORETICAL FRAMEWORK: EUROPEANIZATION & NEW INSTITUTIONALISM

In this chapter two different but interrelated and complementary theories would be discussed, analyzed and justified for the case. In the first section, the recently popularized Europeanization approach, which is mainly applied on studies about the functioning of the European Union, relations of the EU and Member States, and impact of the European Union on new members and accession countries, would be elaborated. The main assumptions of Europeanization and how they related with the case would be discussed. In the second section, new institutionalisms and how they explain institutional change are analyzed. The methodology of ‘how to choose the appropriate institutionalism’ would be presented. Moreover, what is meant by ‘institution’ in this dissertation would be asserted.

1.1. Europeanization of Domestic Policies

In this section, firstly Europeanization would be defined. The main assumptions and terminology of Europeanization would be introduced. Secondly, a framework for Europeanization would be drawn. The scope of Europeanization, at least for this dissertation, would be determined. Thirdly, Europeanization would be analyzed within the formerly drawn framework. Fourthly, the impact of Europeanization on adaptational and harmonization processes would be elaborated. Finally, Europeanization in environmental policy would be assessed.

1.1.1. Defining Europeanization

European integration has been a dynamic topic for many scholars of international relations and comparative politics since the immediate postwar period of the 1940s and 1950s.⁴⁵ However, much of the scholarship that emerged since its beginning adopted decidedly interstate and intergovernmental perspectives that rest on a primary assumption that

⁴⁵ David Mitrany, *A working peace system; an argument for the functional development of international organization*, London: The Royal Institute of International Affairs, 1943; Ernst B. Haas, *The uniting of Europe; political, social, and economic forces, 1950-1957*, Stanford, Calif.: Stanford University Pres, 1958. (Cited in: Thomas Gehring “Integrating Integration Theory: Neo-functionalism and International Regimes” *Global Society* 10, (3), 1996, p.1.)

integration is dominantly the result of sovereign states and their negotiation compromise, and cooperation.⁴⁶

To date, much of the scholarship still rests upon state-centric assumptions and envisages the integration of Europe as purely interstate and intergovernmental phenomenon. The process of policymaking and governance of the European Union is the outcome of bargaining amongst states and can be explained as serving “the ultimate goals of national governments.”⁴⁷ The state-centric approaches to integration espouse limited agency to the integration and governance of the European Union itself. While states must decide jointly, they always can abstain from instituting important changes, hence no state is ‘forced into deeper collaboration than it really wants’ since states are sovereign and capable of defending national interests through numerous ways of EU structures and bargaining.⁴⁸

This does not mean that all state-centric approaches have ignored the effects of the domestic political arena upon each state’s bargaining position and interests in the process of European integration. The functionalist and neo-functionalist approaches encompass domestic interests, elites, and national political parties as important variables rather than viewing states as monolithic unitary actors.⁴⁹ Nonetheless neo-functionalism, as well as liberal institutionalism, continues to view the integration process as a bottom-up, state-level to Europe-level affair. While governments are limited by domestic considerations, these national governments monopolize the integration process. Yet, the view of states as the only agents of change and force in European integration seems decidedly unfruitful in helping to understand the complexity and impact of policymaking and governance inside the European Union.

While this state of affairs may have been reasonable given the tendencies of international relations and comparative politics as distinct fields, the position is hardly sustainable given the development of a ‘multi-level European polity’ and the ‘increasingly porous’ nature of the boundary separating comparative politics and international relations in explaining and

⁴⁶ Robert O. Keohane and Stanley Hoffmann. *The new European Community: Decisionmaking and institutional change*. Boulder, Colo.: Westview Press, 1991; Andrew Moravcsik, *Centralization or fragmentation?: Europe facing the challenges of deepening, diversity, and democracy*. New York: Council on Foreign Relations Press, 1998. (Cited in: Simon Hix and Klaus H. Goetz, “Introduction: European integration and national political systems” *West European Politics* 23, (4), 2000p. 1)

⁴⁷ Liesbet Hooghe and Gary Marks. *Multi-level governance and European integration*. Lanham, MD: Rowman & Littlefield Publishers, 2001, p. 2.

⁴⁸ *Ibid.*, p. 3. a

⁴⁹ Simon Hix and Klaus H. Goetz 2000

understanding European integration.⁵⁰ While traditional integration literature sought to understand and explain how and why states pursued and affected the process of European integration, Hix and Goetz suggest much less effort has gone “into thinking about the reverse effect: European integration as an explanatory factor in domestic political continuity or change”.⁵¹

This research exactly falls into a growing and important divergence from the traditional state-centric, neo-functional, and intergovernmental approaches. The Europeanization approach combines elements of international relations and comparative politics, much like the European Union itself. While focusing upon domestic institutions, policies, and structures which usually fall under the bailiwick of comparative politics, it also encompasses the effects of supranational and international forces upon power, identity, and sovereignty which would likely fall under the guidance of international relations. Hence, the Europeanization approach is not only illuminating an oft neglected and yet expanding element of European integration scholarship; it is also attempting to partially bridge the gap between comparative politics and international relations.

Broadly, the term Europeanization has often been interchangeable with European integration. Yet, Europeanization is more properly applied to the types and methods of domestic change or continuity brought forth through the process of European integration. As Kevin Featherstone suggests, Europeanization is “most often associated with domestic adaptation to the pressures emanating directly or indirectly from EU membership”.⁵² Hence, Europeanization is best thought of as one of several approaches to explaining and understanding the process and implications of European integration. These include not only the previously mentioned approaches that focus upon interstate and intergovernmental aspects of integration, but also others that focus upon the supranational institutional and organizational features of the European Union.⁵³ Yet the Europeanization literature is

⁵⁰ Simon Hix and Klaus H. Goetz 2000; Ian Bache Europeanization: A Governance Approach, EUSA 8th International Biennial Conference, Nashville, 2003, p. 8; Vivien Ann Schmidt, *Democracy in Europe: The EU and National Politics*. Oxford: Oxford University Press, 2006; Robert Harmsen, Europeanization and Governance: A new Institutional Perspective, in *Yearbook of European Studies 14: Europeanization, Institutions, Identities and Citizenship*, pp. 51 – 81, 2000.

⁵¹ Simon Hix and Klaus H. Goetz 2000, p.1.

⁵² Kevin Featherstone, Introduction: In the name of Europe. In *The politics of Europeanization.*, eds. Kevin Featherstone, Claudio M. Radaelli. Oxford: Oxford University Press, 2003, p. 7.

⁵³ Desmond Dinan, *Ever closer union?: An introduction to the European Community*. Boulder, Colo.: Lynne Rienner Publishers 1994; John McCormick, *The European Union: Politics and policies*. 3rd ed. Boulder, Colo.:

differentiated by its primary focus upon the domestic implications and consequences of European integration.

The simplistic definition of Europeanization utilized by Frank Schimmelfennig is “a process in which states adopt EU rules”.⁵⁴ Schimmelfennig’s research was designed to measure and classify the likelihood and form of adoption of European Union rules by the Central and Eastern European states that acceded in 2004 and 2007, as well as future and current candidates for membership like Croatia and Turkey. The adoption of the *acquis communautaire* by member states is amongst the most notable and impressive forms of Europeanization. Members must integrate and adopt over 80,000 pages of EU regulations, legislation, findings, and rules into their domestic political and legal and systems. This often requires reorganization and rearrangement of bureaucratic, legal, and economic policymaking processes and institutions up to and including constitutional amendments. Adoption of the *acquis* requires transformation of new and pending members’ institutions.⁵⁵ Aligning ones national legal and political system to that of the European Union is not easy, often requiring years of negotiation followed by years of implementation especially for states that are still in the process of institutionalizing democratic political institutions and market-based economies.⁵⁶

Schimmelfennig’s definition and research does not necessarily fall outside the state-centric model of European integration scholarship by defining states and national interests as the important variables of rule adoption. But his research does also stress the importance of the EU and NATO as institutions and actors in the process of seeking compliance and reform by the candidate and member states, so it perhaps falls into both the state-centric and Europeanization categories of scholarship.⁵⁷ However, his definition of Europeanization seems far too narrow considering the wider social, political, and economic impacts of European integration. Europeanization is far more than mere likelihood and form of rule adoption; European integration may fundamentally alter the social, political, cultural, and economic behavior and institutions of states and polities. Defining Europeanization as mere

Westview Pres, 2004; Neill Nugent, *The government and politics of the European Union*. 6th ed. Durham: Duke University Pres, 2006.

⁵⁴ Frank Schimmelfennig and Ulrich Sedelmeier, *The Europeanization of central and eastern Europe*. Ithaca, NY: Cornell University Pres, 2005, p. 7.

⁵⁵ *Ibid.*, p. 2.

⁵⁶ Simon Hix and Klaus H. Goetz, *op.cit.*, 2000.

⁵⁷ Frank Schimmelfennig, *The EU, NATO and the integration of Europe: Rules and rhetoric*. New York: Cambridge University Pres, 2003; Frank Schimmelfennig and Ulrich Sedelmeier, *op. cit.* 2005.

rule adoption, even allowing for national variation to pace and form, marginalizes the overall force that European integration and governance may place upon national political systems.

First are the obvious sector-specific economic consequences of integration. The Europeanization of national monetary, fiscal, transportation, telecommunications, agricultural, energy, environment, mining, industrial, banking, insurance, and financial markets may often fundamentally transform the relationship between the state, national markets, firms, sub-national governments, interest groups, and other actors.⁵⁸ These are the consequences of state-level policy being subsumed and made subservient to European-level policy. But while these are primarily changes in policy, best described as harmonization or adaptation, there may also be parallel changes to the states' political structures. There is remarkable variation from sector to sector and amongst policy areas within the European integration project. In some areas such as agriculture and trade policy, the effects of integration for state-level policy have been long institutionalized, while in some areas such as education, immigration, and home affairs, the role and impact of the European Union upon the policy area are still developing.⁵⁹

Again, harmonizing ones' policies to that of the EU is not simple and again often requires years of negotiation followed by decades of implementation for candidates and longstanding members alike. In essence, while much of Europeanization scholarship has been focused upon the effects of European integration on member states' transportation, telecommunication, agricultural, immigration, trade, and monetary policies, less emphasis has been placed how the creation of a European-level of governance fundamentally changes patterns of the policymaking processes as well as the competency and efficacy of state-level institutions such as legal systems, parliaments, bureaucracies, and other formal and informal structures.⁶⁰

The process of European integration and the operation of an EU-level of governance may place extraordinary force upon state-level institutions, processes, and structures to transform not only the eventual policies each state may adopt but also the manners, methods,

⁵⁸ See Kenneth John Button, Kingsley E. Haynes, and Roger Stough, *Flying into the future: Air transport policy in the European Union*. Northampton, MA: Edward Elgar. 1998; Rosemary Fennell, *The common agricultural policy: Continuity and change*. Oxford: Oxford University Press, 1997; Paulette Kurzer, *Markets and moral regulation: Cultural change in the European Union*. Cambridge England: Cambridge University Press, 2001; John McCormick, *Environmental policy in the European Union*. Houndmills, Basingstoke, Hampshire: Palgrave, 2001.

⁵⁹ Robert Harmsen, op. Cit. 2000

⁶⁰ Simon Hix and Klaus H. Goetz, op. cit. 2000; Robert Harmsen, op. Cit. 2000; Vivien Ann Schmidt, op.cit. 2006.

institutions, and processes of state-level policymaking itself.⁶¹ Europeanization is not just about alignment and harmonization of rules, laws, and policy but about the potential of European integration to alter or transform the political structures at the state level.⁶² As Christopher Knill suggests:

EU policies put pressure on national administrations because of the structural requirements they tend to imply...a regulation may call for the creation of new structures (e.g., an environmental agency), the centralization or decentralization of regulatory processes (e.g., by introducing uniform reporting requirements to a central authority), or it may demand horizontal organizational change (e.g., by requiring the co-ordination of previously distinct administrative tasks).⁶³

Additionally, the effects of Europeanization can be both direct and indirect. Direct impacts require institutional and structural reform or change to conform to EU-level norms and standards. Examples such as the EMU, Stability and Growth Pact, ECJ jurisdiction, and many elements of the single market regime tend to have rather strict and universal implications for member states.⁶⁴ However, even in these cases there are allowable or perceivable variances from EU standards suggesting a far more ‘soft’ approach to Europeanization.⁶⁵

More interesting and perhaps more important are the indirect effects of European integration and governance. These are effects on policy styles and norms that while not formally or directly challenged by EU directives or action are nonetheless influential in reshaping and altering existing national patterns of political behavior. European integration and governance has created new divisions within member states’ electorates, parties, interest associations, social groups, and other actors. Europeanization may also alter the types of issues and priorities of issues within domestic political contexts. Further, the constant and repetitive constitution of EU-national relations creates a pattern of expectations and behavior that national actors socially learn and begin to replicate.⁶⁶ Hence Europeanization is not limited to

⁶¹ Vivien Ann Schmidt, op.cit. 2006.

⁶² Ian Bache, op. cit. 2003; Robert Harmsen, op. Cit. 2000

⁶³ Christoph Knill, *The Europeanization of national administrations: Patterns of institutional change and persistence*. New York: Cambridge University Press, 2001, p. 3

⁶⁴ Simon Hix and Klaus H. Goetz, op. cit. 2000; Robert Harmsen, op. Cit. 2000.

⁶⁵ Gerda Falkner, The Europeanization of Austria: Misfit, adaptation, and controversies. *European Integration Online Papers* 5, (13), 2001. <http://eiop.or.at/eiop/texte/2001-013a.htm>.; Robert Harmsen, op. Cit. 2000

⁶⁶ Thomas Risse-Kappen, “A European identity? Europeanization and the evolution of nation-state identities” In *Transforming Europe: Europeanization and domestic change.*, eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y.: Cornell University Press, 2001; Tanja A Börzel and Thomas Risse-Kappen. “Conceptualizing the domestic impact of Europe” In *The politics of*

the formal and strictly institutional, it is also a source or normative and structural change in domestic political systems.⁶⁷

Hix and Goetz concisely enumerate why European integration has become impossible to ignore as a relevant source of domestic political change. First, policy powers once exclusively found in domestic level political institutions have been delegated to the supranational level. Nearly 80% of all rules governing the production, distribution, and exchange of goods, services, capital, and labor in the European market are under the guidance of the European Union.⁶⁸ The restrictions placed upon national governments to harmonize to Europe-wide standards are significant. Second, the European Union does have direct re-distributional capacity so as to engender compliance. While its overall budget is rather small at 1.27% of GDP, in key areas such as agriculture and regional development, the EU's budgetary power is more significant.⁶⁹ Third, the operation of a single-currency by the European Central Bank (ECB) gives the EU a powerful role in macroeconomic stabilization and national budgeting. The EU Growth and Stability Pact constrict sovereign budgetary and discretion under the ever-vigilant eyes of the ECB and the Council of Economic and Finance Ministers. This constant surveillance and regulation forces States to continually align and justify national budget processes within a broader European context.⁷⁰ Fourth, states have begun, especially since the Single European Act of 1985 and the Maastricht Treaty of 1991, to delegate greater competencies to the EU in the areas of judicial, interior, and home affairs, immigration and asylum, and foreign and defense policies.⁷¹ Hence the EU is widening its efficacy beyond market regulation. Fifth, and perhaps most importantly for this and other Europeanization research, is that the new policy environment of the EU has been paralleled by the creation of a new level of governance at the European level.⁷²

The institutionalization and empowerment of EU-level structures on top of existing national structures has enormous implications for the national political systems themselves. While the member states set long-term policy agendas and the formal delegation of the powers to the EU, EU-level institutions have important authority and discretion in the use of such powers.

Europeanization., eds. Kevin Featherstone, Claudio M. Radaelli. Oxford: Oxford University Press, 2003; Robert Harmsen, op. Cit. 2000; Ian Bache, op. cit. 2003

⁶⁷ Simon Hix and Klaus H. Goetz, op. cit. 2000; Ian Bache, op. cit. 2003; Robert Harmsen, op. Cit. 2000

⁶⁸ Simon Hix and Klaus H. Goetz, op. cit. 2000, p. 4

⁶⁹ Ibid., p. 5

⁷⁰ Ibid., pp. 5 – 6

⁷¹ Robert Harmsen, op. Cit. 2000

⁷² Simon Hix and Klaus H. Goetz, op. cit. 2000, p. 6.

The European Commission is rather monopolistically responsible for legislative initiatives in regulation and budget expenditures. The European Court of Justice (ECJ) has adopted supremacy over domestic law when there is a conflict between the two levels. The creation of a European-level also has more concrete implications on the policymaking process by creating a new arena and environment in which interests, public and private, may choose to promote and represent their causes.⁷³ As Hix and Goetz argue, Europeanization has two types of potential impact upon domestic institutions and private and public actors:

- (1) the delegation of policy competences to the European level and the resulting political outcomes constrain domestic choice, reinforce certain policy and institutional developments, and provide a catalyst for change in others; and
- (2) the establishment of a higher level of governance institutions provides new opportunities to exit from domestic constraints, either to promote certain policies, or to veto others, or to secure informational advantages.⁷⁴

The dispute over the differential meanings of “Europeanization” challenges the scholarship and its application. However, there are always such disagreements amongst scholars and Europeanization is not immune. Perhaps Europeanization can best be defined as the “domestic adaptation to the pressures emanating directly or indirectly” from European integration.⁷⁵ Perhaps more complex, yet also valuable, is the definition of Europeanization as “the process of influence deriving from European decisions and impacting...policies and political and administrative structures”.⁷⁶

In this context, Europeanization emerges as a distinct analytical focus stressing and highlighting key issues and phenomena of European integration:

...adaptation of institutional settings in the broadest sense (of rules, procedures, norms, practices) at different political levels in response to the dynamics of integration... emergence of new, cross-national policy networks and communities...nature of policy mimicry and transfer between states and subnational authorities...shifts in cognition, discourse, and identity affecting policy in response to European developments...restructuring the strategic opportunities available to

⁷³ Simon Hix and Klaus H. Goetz, op. cit. 2000, pp. 6 – 9; Tanja A Börzel and Thomas Risse-Kappen op. cit. 2003; Robert Harmsen, op. Cit. 2000

⁷⁴ Simon Hix and Klaus H. Goetz, op. cit. 2000, p. 10

⁷⁵ Kevin Featherstone, op. cit. 2003, p. 7

⁷⁶ Adrienne Héritier, “Differential Europe: The European Union impact on national Policymaking” In *Policy-making and diversity in Europe: Escaping Deadlock.*, ed. Adrienne Héritier. Cambridge: Cambridge University Press, 1999, p. 3.

domestic actors, as EU commitments, having a differential impact on such actors, may serve as a source of leverage.⁷⁷

As Featherstone suggests, this new focus regarding integration's impact upon the domestic creates new and challenging research questions that reinvigorate and add to the European integration scholarship. Europeanization literature can go beyond asking under what conditions European states choose to integrate but asks questions that reverse the thinking from state to Europe to Europe to state:

How does Europeanization affect the interest and ideas, actors and institutions within the European Union? What is the impact of the European Union on policy processes? Why does adaptational pressure lead to policy convergence between states in some sectors, but not in others?⁷⁸

While most Europeanization literature has been primarily institutional in its outlook and theoretical underpinnings, it is not exclusively so. It may also include many social and political patterns of behavior including identity. Risse, Cowles, and Caporaso argue that Europeanization encompasses structures such as “formal and informal rules, norms, regulations, procedures, and practices” which go beyond formal institutions and organizations of governance.⁷⁹ While encompassing a broad range of forces and effects, from mere policy harmonization to wholesale structural change, this definition does distinguish Europeanization literature from the neo-functionalist and intergovernmental scholarship as well as restrict the focus to the effects of European integration upon state or sub-national governance.

The Europeanization literature treats European integration as the independent variable and state-level political institutions and processes as the dependent variables. Clearly in reality, the relationship is cyclical and interdependent.⁸⁰ It is important to intellectually disaggregate the ways in which European integration and governance impacts domestic political structures so as to potentially learn how such impacts may lead to change or continuity.

One important potential impact is the creation of a multi-level policymaking process between the EU and national levels of governance. This may alter how actors strategically operate

⁷⁷ Kevin Featherstone, op. cit. 2003, p. 19 – 20.

⁷⁸ Ibid., p. 20

⁷⁹ Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, “Europeanization and domestic change: Introduction” In *Transforming Europe : Europeanization and domestic change.*, eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y.: Cornell University Press, 2001, p. 6

⁸⁰ Ian Bache, op. cit. 2003; Robert Harmsen, op. Cit. 2000

within both national and supranational environments.⁸¹ The existence of ‘two-level’ or multi-level strategies has been explored and analyzed in game theory and rational choice literature as well as case studies of specific diplomatic engagements.⁸² The entanglement of domestic and international politics has led to numerous opportunities in which the politics at one level of analysis might impact and shape decisions at another. This is found notably in the scholarship of domestic sources of foreign policy and, probably most notably, the impact of internal politics upon foreign economic policy.⁸³ The creation and existence of multi-level governance amongst the states and institutions of the European Union suggests that actors can and may likely adopt two-level strategies towards the policymaking process, significantly impacting the efficacy and effectiveness, as well as the policy outputs, of domestic level structures.

The domestic impact of European integration can be measured at either the state or sub-national level. European integration also obviously influences candidate and potential candidate states through conditionality requirements. Hence Europeanization is not limited to current members of the European Union. The integration of Europe is even influential in transforming states that have opted against membership. Non-member states’ political structures, such as in Switzerland and Norway, are strongly interdependent upon EU-trade, transportation, communication, energy, and immigration networks and may therefore also be shaped by forces of European integration despite the lack of formal membership or candidacy.⁸⁴

Europeanization is differentiated from most other European integration scholarship by attempting to understand and explain if, how, when, and to what extent European integration and governance leads to change or continuity in domestic level structures and institutions. In Hix and Goetz’ terms, Europeanization is focused upon “European integration as an explanatory factor in domestic political continuity or change”.⁸⁵

⁸¹ Simon Hix and Klaus H. Goetz, op. cit. 2000; Robert Harmsen, op. Cit. 2000

⁸² Robert D. Putnam, Diplomacy and domestic politics: The logic of two-level games. *International Organization* 42, (3) (Summer): 427-60, 1988.

⁸³ Peter Gourevitch, The second image reversed: The international sources of domestic politics. *International Organization* 32, (4) (Autumn): 881-912, 1978.

⁸⁴ Frank Schimmelfennig op. cit. 2003; Frank Schimmelfennig and Ulrich Sedelmeier op. cit. 2005.

⁸⁵ Simon Hix and Klaus H. Goetz, op. cit. 2000, p. 1.

Hence the Europeanization approach has been dominantly a “top-down” approach that seeks to explain the impact of supranational patterns and structures of policymaking, governance, and action upon domestic structures and patterns.⁸⁶ Much of the early Europeanization literature assumed a hierarchical relationship between the EU and member states and tended to emphasize the process of national adjustment to EU-level directives and norms or patterns of policymaking.⁸⁷

Europeanization has also become more focused on the “bottom-up” means in which European integration and governance is constituted. This has focused on the differential responses of member states and their structures to European integration and governance and the interplay and penetration of top-down and bottom-up dynamics.⁸⁸ The true measure and complexity of Europeanization is the mutually constituted, ever-evolving model of negotiation, compromise, bargaining, interaction, bureaucratization, legislation, administration, adjudication, and interpenetration of the sub-national, national, and supranational institutions and actors that encompass the totality of the European political system.⁸⁹

1.1.2. The Scope of Europeanization

Measuring the impact and consequences of European integration upon states’ political systems and structures is at the core of Europeanization scholarship. Yet it would be inaccurate to say that there is always an impact of European integration to measure. While many have sought to discover and explain cases of isomorphism, when states adapt institutions and processes to an identical and uniform Europeanized model, these are extraordinarily rare. Martin Lodge argued: “Europeanization itself implies a seemingly unavoidable, irresistible shift toward a common (European) practice away from traditionally diverse national public policies.”⁹⁰

⁸⁶ Claudio M. Radaelli, Europeanization: A problem or Solution? *European Integration Online Papers* 8, (16), 2004. <http://eiop.or.at/eiop/texte/2004-016a.htm>

⁸⁷ Adrienne Héritier, op. Cit. 1999.

⁸⁸ Simon Hix and Klaus H. Goetz, op. cit. 2000; Claudio M. Radaelli, op. cit. 2004.; Ian Bache, op. cit. 2003; Robert Harmsen, op. Cit. 2000; Vivien Ann Schmidt, *op. cit.* 2006; Kevin Featherstone and Claudio M. Radaelli. *The politics of Europeanization*. Oxford: Oxford University Press, 2003.

⁸⁹ Ian Bache, op. cit. 2003; Claudio M. Radaelli, op. cit. 2004; Robert Harmsen, op. Cit. 2000.

⁹⁰ Martin Lodge, Isomorphism of national policies? The 'Europeanization' of German competition and public procurement law. *West European Politics* 23, (1): 89, 2000, p. 89

The isomorphism of state institutions and processes is actually quite uncommon and lies at the heart of Europeanization scholarship that is attempting to explain and understand the wide variation in response and adaptation to the forces of European integration. The results of the scholarship show little isomorphism, rather it has uncovered that “the domestic impact of European politics is not characterized by a clear and consistent picture.”⁹¹ The effects of integration result in “neither wholesale convergence nor continuing divergence of national policy structures, institutions, and other patterned relationships.”⁹² Hence differential responses and adaptation to European integration is the primary question that Europeanization hopes to explain and understand.⁹³

We not only observe administrative convergence, but also (and to a similar extent) divergence – or persistence of administrative differences across member states.⁹⁴

Europeanization does not always lead to state-level structural change. In many areas, Europeanization may have little or no bearing.⁹⁵ In some circumstances, the EU forgoes establishing supranational policy instead of state-level or sub-national governance. The concept of subsidiarity is most notable. As Tiersky states:

The Maastricht Treaty established the principle of subsidiarity, a concept that attempts to define which decisions are to be taken at which levels. Issues of primary local importance are to be taken as close to the citizen as possible. Subsidiarity was introduced in part as a response to fears of excessive centralization of powers in Brussels.⁹⁶

Paradoxically, while subsidiarity was designed to protect the continued persistence and efficacy of state and local governance on many issues, it has actually had a Europeanizing impact in increasing the role and prominence of sub-national governments and governance in states where sub-national power was historically weak or even in the creation of transnational regional governance.⁹⁷ So, even in circumstances where the European Union defers from supranational regulatory authority, the manner in which it defers and its overall increasing

⁹¹ Christoph Knill, *op. cit.* 2001, p. 3

⁹² Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, *op. cit.* 2001, p. 1

⁹³ Martin Lodge, *op. cit.* 2000; Vivien Ann Schmidt, *op. cit.* 2006

⁹⁴ Christoph Knill, *op. cit.* 2001, p. 3

⁹⁵ Vivien Ann Schmidt, *op. cit.* 2006

⁹⁶ Ronald Tiersky, *Europe today. national politics, European integration, and European security.* 2nd ed. Lanham: Rowman & Littlefield, 2004, p. 44.

⁹⁷ Tanja A. Börzel, Europeanization and territorial institutional change: Toward cooperative regionalism? In *Transforming Europe: Europeanization and domestic change.* eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y.: Cornell University Press, 2001; Vivien Ann Schmidt, *op. cit.* 2006

importance may have tangible impacts upon state and sub-national structures of governance. Therefore, it is fruitful to think of Europeanization as a process that exists beyond explicit institutionalization at the supranational level. The implications of European integration may often stem directly from explicit European-level policymaking and institutions, yet it may just as often stem from indirect, implicit, and ideational forces.⁹⁸

Even when European integration explicitly calls upon states to conform or comply with EU-level structures of governance, some state-level structures require little to no change to operate within the new European context. Many state-level structures may be compatible and even reinforced by European-level policy, in essence, these institutions and processes “fit”.⁹⁹ Measuring fit will be discussed in later sections of this chapter. Nonetheless, it is important to recognize that the forces of Europeanization do not necessarily result in significant transformation of state-level structures.

Even if state-level structures do not fit and face significant pressure from European integration to adapt, change, or transform, there is remarkable variation amongst institutions as to whether and how adaptation takes place. The changes that may take place are not necessarily isomorphic; they have national flavor and variety. Hence while there may be significant pressure towards an implementation of convergence, the end result is almost never isomorphic convergence.¹⁰⁰ The results tend to support the conclusion that national institutions and features do matter and result in “domestic adaptation with national colors” to European integration.¹⁰¹

Europeanization is a rather broad range of political, economic, and social phenomena resulting from the impact of European-level governance upon state-level governance. The range can include administrative and bureaucratic harmonization with the *acquis communautaire*, to significant limitations on executive, bureaucratic, parliamentary, or other institutional policy choice and action over issue areas, to the more significant structural change of economic, social, and political institutions and processes. Europeanization

⁹⁸ Ian Bache, *op. cit.* 2003; Robert Harmsen, *op. cit.* 2000; Vivien Ann Schmidt, *op. cit.* 2006

⁹⁹ Adrienne Héritier, *op. cit.* 1999; Simon Hix and Klaus H. Goetz, *op. cit.* 2000; Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, *op. cit.* 2001; Vivien Ann Schmidt, *op. cit.* 2006

¹⁰⁰ Gerda Falkner and Simone Leiber. 2004. Europeanization of social partnership in smaller European democracies. *European Journal of Industrial Relations* 10, (3): 245-266; Martin Lodge, *op. cit.* 2000; Vivien Ann Schmidt, *op. cit.* 2006;

¹⁰¹ Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, *op. cit.* 2001, p. 1

encompasses them all: policy, process, and politics.¹⁰² The common links that connect this broad range of political phenomena is that each is impacted, to some extent, by European-level patterns and structures of integration and governance.

1.1.3. Analyzing Europeanization

As stated above, the effects of Europeanization are rarely isomorphic.¹⁰³ State-level institutions, actors, and structures respond and react in various manners to pressures created by European integration and governance. The fundamental thesis of most Europeanization literature is trying to explain and understand how, when, why, and to what extent such variation takes place.¹⁰⁴

Hence, measuring the impact of European Union upon states' environmental policies will be of critical interest. The first primary question that must be addressed is to whether each state is under identical or equal pressures from European models of governance and policymaking. This is rather difficult to assess given the nature of the European Union's fragmented policymaking and governance patterns and the differences amongst the states themselves.¹⁰⁵ There have been numerous instances where states have been treated differently by the European Union and its policymaking and governance patterns. The differential cases of German and Portuguese violations of the Growth and Stability Pact, the non-adoption of the Euro by Sweden, Denmark, and the UK, and the British rebate from the Common Agricultural Policy (CAP) are most notable. As Hix and Goetz and others observe, many EU regulations, such as in areas of workers' rights, allow a "high degree of freedom for member states to interpret the rules in the process of transposing EU law into domestic legislation".¹⁰⁶ European-level integration and policymaking is often a negotiated and compromised affair, hence there is some measurable level of variation in how and when rules and policies of the EU are applied to or adopted by the member states.¹⁰⁷

¹⁰² Vivien Ann Schmidt, *op. cit.* 2006

¹⁰³ Martin Lodge, *op. Cit.* 2000; Vivien Ann Schmidt, *op. cit.* 2006

¹⁰⁴ Adrienne Héritier, *op. Cit.* 1999; Christoph Knill, *op. cit.* 2001; Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, *op. cit.* 2001; Vivien Ann Schmidt, *op. cit.* 2006.

¹⁰⁵ Vivien Ann Schmidt, *op. cit.* 2006.

¹⁰⁶ Simon Hix and Klaus H. Goetz, *op. cit.* 2000, p. 4.

¹⁰⁷ Adrienne Héritier, *op. Cit.* 1999; Robert Harmsen, *op. Cit.* 2000; Vivien Ann Schmidt, *op. cit.* 2006.

Hence this research is attempting to analyze the compatibility of the environmental policy in Turkey to the European modes of policy and policy making. Measuring compatibility of domestic structures to that of the European-level or multi-level mode governance has been a critical feature of Europeanization literature. This is an attempt to assess the ‘goodness of fit’ between the institutions and processes of European integration and the institutions and processes at the Turkish state level.¹⁰⁸

Risse, Cowles, and Caporaso label this as adaptational pressure which they define as “the extent to which domestic institutions would have to change in order to comply with European rules and policies”.¹⁰⁹ For Hix and Goetz, adaptational pressure is known as catalyst in which European-level governance acts to ‘produce new institutional forms’ at the state-level.¹¹⁰ This fit not only applies to policy output but to institutions and other policymaking and formulating structures as well.

European-level governance may impact domestic structures by providing a new ‘structure of opportunities’ for domestic actors. Domestic actors may seek to use the very existence of EU-level of governance to bypass, reinforce, or otherwise alter their participation and solidarity to state-level structures.¹¹¹ Actors will do this when there is advantage to do so. Hix and Goetz suggest three such instances. First, actors may exit the domestic arena for the European level when they are blocked from achieving a desired policy or outcome at the domestic one. Second, and related to the first, actors may seek to use the European level to veto domestic actions. Third, actors may use the European level to gain an informational advantage in the domestic arena by framing debates and agendas due to greater conformity to and knowledge of European level governance.¹¹²

All three instances are more likely when actors or institutions calculate that operating at the EU level provides opportunities unavailable at the domestic level alone. It does not mean that such interests will cease operating at the national level or that national level structures must necessarily surrender to European-level governance. However, it certainly does change the

¹⁰⁸ Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, *op. cit.* 2001; Adrienne Héritier, *op. Cit.* 1999; Robert Harmsen, *op. Cit.* 2000, *op. cit.* 2003; Vivien Ann Schmidt, *op. cit.* 2006; Tanja A Börzel and Thomas Risse-Kappen *op. cit.* 2003.

¹⁰⁹ Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, *op. cit.* 2001, p. 6.

¹¹⁰ Simon Hix and Klaus H. Goetz, *op. cit.* 2000, p. 11.

¹¹¹ *Ibid.*, p. 12

¹¹² *Ibid.*, p. 12 – 13.

manner and methods by which actors and institutions operate, as well as the very nature of the actors and institutions themselves. The potential lure of regularly taking issues to the European-level diminishes the absolute and monopolistic power of state-level institutions to function as they may once have. This would likely create even greater impetus for interests and actors to potentially avoid the state-level structures for European-level institutions or at least to create a far more complex system of multi-level governance in which interests and actors regularly operate at both state and supranational levels in the policymaking process.¹¹³

Hence Hix and Goetz are using a melding of institutional and rational choice approaches to assess and analyze the impact of European integration upon domestic political systems and actors. The catalyst for change or continuity is derived from the calculations of actors as to whether or not to bypass the domestic level for the European one.¹¹⁴ This fits well within the nested game framework of rational choice institutionalism such as that of Tsebelis and others who see the emergence of a two-level game for actors.¹¹⁵ But it is also a form of institutional learning in which domestic structures adapt or fail to adapt to the new multi-level and European environment and consequently alter, or fail to alter, rules, procedures, processes, and functions that are more compatible with the new European political universe.¹¹⁶

For Risse, Cowles, and Caporaso measuring Europeanization is far less symbolic of rational choice institutionalism and is best described as structuralism. First, Risse, Cowles, and Caporaso have a broader understanding and usage of institutions to also include structural characteristics and phenomena such as political culture, identity, state-society relations, as well as formal institutions and actors. Hence, it includes both formal and informal political and social institutions and arrangements, which they widely term as structure. The framework distinguishes between and summarizes what they term policy structures and system-wide domestic structures. As for policy structures, they express interest in not only changes in ‘policy subject matter’ but also in the ‘political legal, and administrative structures that interpret and carry out policy’ at the domestic level. More broadly, they also encompass system-wide domestic structures such as national legal systems, national administrative traditions, territorial structures, interest association and intermediation, and collective

¹¹³ Simon Hix and Klaus H. Goetz, *op. cit.* 2000, p. 12; Liesbet Hooghe and Gary Marks, *op. cit.* 2001; Robert Harmsen, *op. cit.* 2000; Vivien Ann Schmidt, *op. cit.* 2006

¹¹⁴ Simon Hix and Klaus H. Goetz, *op. cit.* 2000, p. 14.

¹¹⁵ George Tsebelis, *Nested games: Rational choice in comparative politics*. Berkeley: University of California Press, 1990.

¹¹⁶ Simon Hix and Klaus H. Goetz, *op. cit.* 2000; Vivien Ann Schmidt, *op. cit.* 2006

understandings of state and identity. Second, the intervening variables are less tied to actors' preferences and interests, but more adjusted to actors' and institutions' practices and norms as explanations of domestic structural change.¹¹⁷ Hence while there is considerable overlap between Hix and Goetz and Risse, Cowles, and Caporaso, there are important differences in measuring what variables are important in the Europeanization of domestic political systems and structures. Risse, Cowles, and Caporaso utilize a three-step approach to analyzing Europeanization and domestic structural change. As seen below in Figure 1, the model attempts to explain domestic structural change as a product of the forces of Europeanization within the context of two sets of intervening variables, adaptational pressures and mediating practices. Adaptational pressures are defined as the goodness of fit between European and national processes, settings, rules, and practices.¹¹⁸

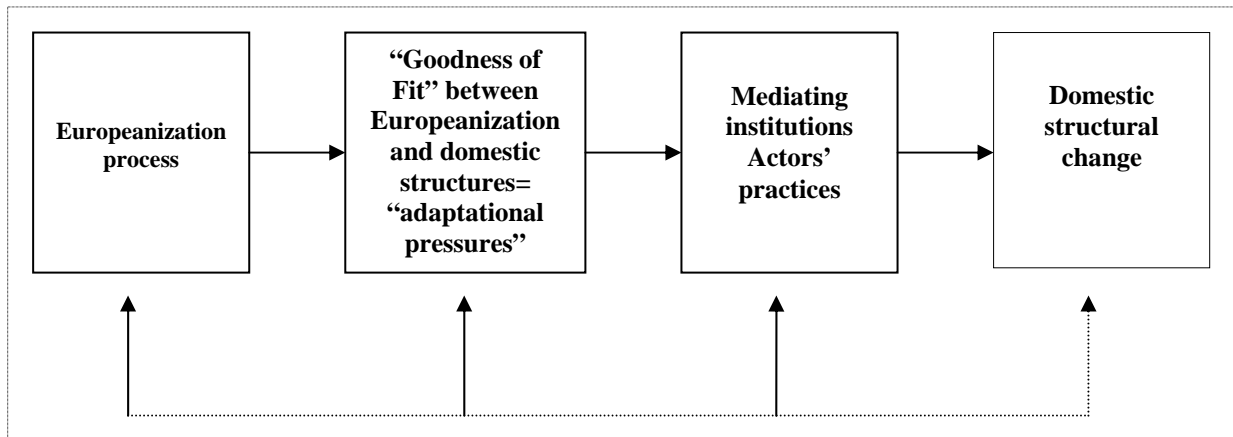
Risse, Cowles, and Caporaso distinguish two casual pathways in which Europeanization may exert adaptational pressure on domestic structures. First, European-level policy may lead to a misfit between EU-level rules and domestic-level regulations. These circumstances would place adaptational pressure upon domestic political and administrative structures, especially upon formal domestic institutions and governments to make specific policy changes. Second, European-level governance may exert strong adaptational pressures on embedded domestic structures that include national styles of governance and even deeply rooted understandings of identity and political behavior. These circumstances place adaptational pressure upon national norms, routines, state-society relations, and other structural features.¹¹⁹

¹¹⁷ Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, *op. cit.* 2001, p. 6.

¹¹⁸ Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, *op. cit.* 2001, p. 6.

¹¹⁹ *Ibid.*, p. 8.

Table 1.1: Model of Europeanization



Source: Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, 2001, p. 6

Thus, European-level and multi-level governance tends to create different degrees of adaptational pressure dependent upon the goodness of fit between domestic and European levels of governance and structure.¹²⁰ State-level responses to such pressure are therefore hardly isomorphic. Some state-level structures may fit and face little or no adaptational pressure; hence little transformation or change would be necessary or likely.¹²¹ Institutions would be likely to adopt minor changes that are strongly compatible with the existing modes and principles of operation. However, even when adaptational pressure is perhaps only moderate, the likelihood of change is not purely reliant upon the mere existence of such pressures. The variation amongst similar structures in states facing similar adaptational pressures does not necessarily result in convergence to a single form or pattern. This has been illustrated by cases where there is meaningful adaptational pressure from European integration and institutions that challenge existing national structures.¹²² In these cases, there is wide variation in response amongst states and their structures to the adaptational pressures. In some cases, national institutions, policies, and structures are defended at great cost by seeking variance from European-level rules, changing existing European-level laws or competencies, or the creation of a deadlock between European and domestic levels of governance. In other cases, however, domestic structures were adjusted despite high costs in

¹²⁰ Adrienne Héritier, "Differential Europe: National administrative responses to community policy." In *Transforming Europe : Europeanization and domestic change.*, eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y.: Cornell University Press, 2001.

¹²¹ Vivien Ann Schmidt, *op. cit.* 2006.

¹²² Martin Lodge, *op. Cit.* 2000; Vivien Ann Schmidt, *op. cit.* 2006; Tanja A Börzel and Thomas Risse-Kappen *op. cit.* 2003; Christoph Knill, *op. cit.* 2001; Adrienne Héritier, *op. Cit.* 2001

monetary, political, or cultural terms.¹²³ Accounting for such variation is the focus of the third step in the Risse, Cowles, and Caporaso model of Europeanization: mediating factors.¹²⁴

In cases of strong adaptational pressures due to misfits between European and domestic levels of governance, the presence or absence of mediating factors which are critical in assessing when domestic structural change or continuity should be expected. According to Risse, Cowles, and Caporaso, state-level responses to adaptational pressure is dependent upon five mediating factors: multiple veto points, facilitating formal institutions, organizational and policymaking cultures, differential empowerment of domestic actors, and learning.¹²⁵

The existence of multiple veto points in a given state-level structure impedes structural adaptation by decentralizing power across the political system and allowing more actors to have a say in political decision making. The more power is dispersed, the more difficult it is to create a domestic coalition to introduce and implement changes necessary to reduce the adaptational pressures of European-level governance.¹²⁶ Héritier has argued that certain decentralized features of the German and Italian political systems and policymaking process have slowed or blocked implementation of structural adjustment to European level pressures in decision-making and transport policy.¹²⁷ Hence, systems that institutionalize powerful and multiple veto points might be particularly susceptible to deadlock that inhibit structural reform.¹²⁸

The existence of mediating formal institutions works in the opposite manner of multiple veto points in allowing actors to introduce and apply structural change at the domestic level.¹²⁹ Most notable in domestic judicial systems, some existing national courts were able to rather easily adapt to the primary ruling mechanism and the European Court of Justice in that the system of referral and court hierarchy was already institutionalized at the national level.¹³⁰

¹²³ Alberta M. Sbragia, "Italy pays for Europe: Political leadership, political choice, and institutional adaptation." In *Transforming Europe : Europeanization and domestic change.*, eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y.: Cornell University Press, 2001..

¹²⁴ Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, op. cit. 2001

¹²⁵ Ibid.

¹²⁶ Ibid., p. 9

¹²⁷ Adrienne Héritier, op. Cit. 2001.

¹²⁸ Robert Harmsen, op. Cit. 2000; Vivien Ann Schmidt, *op. cit.* 2006.

¹²⁹ Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, op. cit. 2001, p. 9.

¹³⁰ Lisa Conant, Europeanization and the courts: Variable patterns of adaptation among national judiciaries. In *Transforming Europe: Europeanization and domestic change.*, eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y.: Cornell University Press, 2001.

However, states that lack institutions that can introduce and manage structural change may find adaptation far more problematic.

Political and organizational cultures refer to the “prevailing collective understandings of appropriate behavior” often based upon informal, normative, social, and political cultural structures that guide and constrain political action. These can be assessed and analyzed in the formal and informal mechanisms of the policymaking and implementation process. Most notable are the systems of consensual or cooperative decision-making cultures found in Germany, Austria, Scandinavia, and the Netherlands, the historically confrontational relationships between the regions and the central governments in Spain and Italy, the statist centralization of France, the social democratic solidarity of Sweden, the strong church state ties in Ireland, the history and adherence of direct democracy in Switzerland, and populist nationalism in Poland.¹³¹ These features of states’ political cultures, norms, and collective understandings play an important role in determining the appropriateness of some actions versus others. Hence, some of the adaptational pressures of European integration may fail to be translated into change precisely due to their sharp conflict with existing political and organizational cultures that consider such reforms, even under strong adaptational pressure, opposing to national identities and ideals and beyond what is politically acceptable and appropriate.

Because structural change will likely lead to a redistribution and reorganization of political capabilities in a state system, the relevant actors and the differential empowerment of such actors is also influential upon the direction and intensity of structural change or continuity.¹³² While some have argued that European integration has led to greater autonomy of national executives over other domestic actors in areas of European policy, Europeanization can lead to a redistribution of powers amongst a variety of actors including national executives, legislatures, courts, bureaucracies, regional governments, interest associations, and firms.¹³³

¹³¹ Tanja A. Börzel, *States and regions in the European Union : Institutional adaptation in Germany and Spain*. Cambridge, UK: Cambridge University Press, 2002; Vivien Ann Schmidt, *op. cit.* 2006.

¹³² Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, *op. cit.* 2001, p. 11.

¹³³ Klaus H. Goetz, European integration and national executives: A cause in search of an effect?. *West European Politics* 23, (4): 211, 2000; Andrew Moravcsik, *The choice for Europe: Social purpose and state power from Messina to Maastricht*. Ithaca, N.Y.: Cornell University Press, 1998; Ian Bache, *op. cit.* 2003; Robert Harmsen, *op. Cit.* 2000

Hence Europeanization may change the power relationship between actors and the state.¹³⁴ Similar to the rational institutional arguments of Hix and Goetz, actors or groups of actors may seek structural change to increase their net political power at the expense of others who likely oppose such reform for obvious rationale. Hence Europeanization is not merely focused upon the impact of the supranational upon the national level but also of the internal means of the political systems in the engagement of the Europeanization process.

The fifth and final mediating factor for Risse, Cowles, and Caporaso is learning. Rather than merely reflecting given empowerment and preferential interests of actors and institutions at the domestic level, Europeanization may also lead to transformations of the actors' interests and identities.¹³⁵ The effects of Europeanization upon citizenship, identity, and interests may fall far more into the social constructivist and social learning literature of international relations but there are important implications of such change upon domestic structures of governance. European integration itself may lead to new political, social, and economic identities that fundamentally alter existing domestic structures that rely upon static actor and institutional roles.¹³⁶

Despite their differences, the models espoused by Hix and Goetz and Risse, Cowles, and Caporaso essentially are measuring the same phenomena. Both are attempting to understand and explain when and why domestic change or continuity exists in the face of forces of European integration. Both models also have created a framework to assess when and why change is more likely than continuity. For Hix and Goetz, change is more likely in two instances, when the locus of a particular policy area is delegated to the European-level and when exit, veto, and informational incentives are present for actors or institutions to pursue European or multi-level strategies.¹³⁷ The first instance is dominantly institutional in approach while the second is nested primarily in rational choice literature, or as labeled by Tsebelis,

¹³⁴ Maria Green Cowles, The transatlantic business dialogue and domestic businessgovernment relations. In *Transforming Europe: Europeanization and domestic change.*, eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y.: Cornell University Press, 2001.

¹³⁵ Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, op. cit. 2001, p. 12.

¹³⁶ Jeffrey T. Checkel, The europeanization of citizenship?. In *Transforming Europe: Europeanization and domestic change.*, eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y.: Cornell University Press, 2001; Gary Marks and Marco R. Steenbergen. *European integration and political conflict.* Cambridge: Cambridge University Press, 2004; Thomas Risse-Kappen, A European identity? Europeanization and the evolution of nation-state identities. In *Transforming Europe: Europeanization and domestic change.*, eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y.: Cornell University Press, 2001.

¹³⁷ Simon Hix and Klaus H. Goetz, op. cit. 2000;

rational institutionalism.¹³⁸ The Risse, Cowles, and Caporaso framework is far more structured and concise (see *Model of Europeanization*). It proposes a three-step flow of casual relationships that lead to domestic structural change or continuity.¹³⁹ While dominantly historical institutional in approach, there are also strong elements of rational choice and, especially in Risse, social learning and constructivism.¹⁴⁰

While clearly not the entire universe of Europeanization scholarship, the efforts by Hix and Goetz and Risse, Cowles, and Caporaso are symbolic of the most determined efforts to clarify and connect the dissimilar threads of Europeanization literature. In addition, they provide a framework to analyze the impact and implications of European integration upon domestic policies such as environmental policy in Turkey. As will be discussed in the proceeding chapters, the frameworks of Hix and Goetz and Risse, Cowles, and Caporaso may be compatible and useful in such a role. Hence this research will use these models as the basis of investigation and analysis of the impact of European integration upon environmental policy in Turkey.

1.1.4. Assessing Europeanization as a Framework

Utilization of the Hix and Goetz and Risse, Cowles, and Caporaso frameworks seems appropriate in attempting to assess the impact of European integration upon environmental policy in Turkey. However, it must also be noted that the Europeanization literature is not specifically a single theoretical approach or model. While “Europeanization has all the hallmarks of an emergent field of inquiry...the systematic study of Europeanization effects is still in its infancy”.¹⁴¹ As illustrated by Hix and Goetz and Risse, Cowles, and Caporaso, there is no one standard of terminology or even an overarching agreement as to defining Europeanization itself.

In addition, there is substantive analytical and methodological diversity within the Europeanization approach. While it is dominantly institutional, it is not exclusively so. Hix and Goetz take a far more rational choice direction in explaining Europeanization while some

¹³⁸ George Tsebelis, *op. cit.* 1990.

¹³⁹ Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, *op. cit.* 2001

¹⁴⁰ Thomas Risse-Kappen, *op. cit.* 2001.

¹⁴¹ Simon Hix and Klaus H. Goetz, *op. cit.* 2000, p. 15; Christoph Knill, *op. cit.* 2001; Adrienne Héritier, *op. Cit.* 2001.

studies follow a far more social constructivist course by focusing upon the effects of Europeanization upon national identity, civil society relationships, and norms.¹⁴² While some scholars has focused upon the Europeanization of specific formal legislative, executive, judicial, and bureaucratic institutions, many also have more broadly understood institutions to also include the norms, processes, procedures, and other informal features of national political systems which along with the formal institutions may be best defined as structure. Hence, Europeanization as an approach encompasses a wide range of formal and informal institutions, processes, actors, and other phenomenon.¹⁴³

It should be noted that the Europeanization scholarship discussed previously tends to highly emphasize the concept of misfit. For almost all the scholars, the assessment of misfit or incongruence is the first stage of research in explaining the impact of Europeanization on domestic political systems and structures. Hence misfit has become a necessary condition in explaining European-initiated structural change at the domestic level.¹⁴⁴ However, assessing misfit is actually quite difficult and there is too many variation and diversity across states even with similar patterns of policymaking. Some even suggest that misfit has little or nothing to do with specific structural changes stemming from Europeanization and that change and continuity rest entirely within the particularistic national, sectoral, or policy environments and institutions of the member states.¹⁴⁵

In this dissertation the impact of European Union on environmental policy in Turkey and policy processes would be evaluated. Its main focus is on the process of European policy implementation at the national level and policy changes following from this. Therefore, the patterns of policy change and administrative transformation at the national level are the dependent variable to be explained. The details of the supranational policy formulation processes are not within the scope of this study. However, this does not mean a total exclusion of supranational policy formulation from the analysis. Rather it has to be considered in order to get a full understanding of the concrete content and the administrative implications of the policy. Considering the EU policies as independent variable into the national system allows

¹⁴² Tanja A Börzel and Thomas Risse-Kappen. *Op. cit.* 2003; Ian Bache, *op. cit.* 2003; Jeffrey T. Checkel, *op. cit.* 2001

¹⁴³ Kevin Featherstone, *op. cit.* 2003.

¹⁴⁴ Tanja A Börzel and Thomas Risse-Kappen. *Op. cit.* 2003; Vivien Ann Schmidt, *op. cit.* 2006.

¹⁴⁵ Christoph Knill, *op. cit.* 2001; Adrienne Héritier, *op. Cit.* 2001.

one to focus on the distinctive impact of national factors in shaping domestic responses to European demands.

As mentioned above a significant characteristic which distinguishes this dissertation from other researches on Europeanization is its elaboration on domestic arrangements. They are considered as the dependent variable which is affected by European policies. This seems to be contrasted with established concepts of Europeanization, which are basically dealt with developments at the supranational level. Generally the traditional approaches focus on the extent to which domestic conditions influence the outcome of European policy making and institution building. Without neglecting the causal relationship, focusing on domestic changes assesses the influence of already-established European arrangements at the national level.

There are two broad strands in traditional European integration research which are: international relations and comparative politics.¹⁴⁶ The basic focus of both strands of research is on supranational institution-building and policy making. Consequently, they provide limited insights when it comes to the impact of European integration at the domestic level. Since the basic concern of these studies is related to developments at the supranational level, the impact of these developments on domestic structures and processes is hardly subject to consistent analysis. Domestic structures are not considered as dependent variables, but are analyzed as factors which affect the interactions between the supranational and domestic levels. For the purpose of this study, however, these approaches seem to be of only limited relevance, since they contain no theoretical generalizations that allow for hypothesizing on the scope and mode of domestic policy and administrative change. First, traditional integration research is not directly concerned with domestic policy and institutional change, but with potential power redistribution between domestic and European actors.¹⁴⁷ Second, although the redistribution of power can be seen as a basic condition for subsequent policy and-institutional change, the above-mentioned concepts do not specify general conditions under which such changes actually take place.¹⁴⁸ A third aspect which restricts the relevance that these concepts have to this study is their focus on political rather than administrative

¹⁴⁶ Simon Hix, 'The Study of the European Community: The Challenge to Comparative Politics' *West European Politics* 17 (1), 1 – 30, 1994; Markus Jachtenfuchs and Beate Kohler-Koch (eds) *European Integration* Opladen: Leske&Budrich, 1996.

¹⁴⁷ Ibid.

¹⁴⁸ Ibid.

institutions and actors.¹⁴⁹ Although political and administrative changes might be closely related, administrative changes are only indirectly integrated into the analysis.

Risse's conceptualization would be taken as the main reference point for Europeanization in this study which is: "emergence and the development at the European level of distinct structures of governance, that is, of political, legal, and social institutions associated with political problem solving that formalizes interactions among the actors and of policy networks specializing in the creation of authoritative European rules".¹⁵⁰ Europeanization is understood as a process of institution-building at the European level in order to explore how this Europeanization process impacts on the member states.

There are two conditions for expecting domestic changes in response to Europeanization: First Europeanization must be 'inconvenient', which implies a of 'misfit' or 'incompatibility' between European level processes, policies and institutions, on the one hand, and domestic level processes, policies and institutions on the other.¹⁵¹ This degree of misfit constitutes an adaptational pressure which leads to a necessary condition for expecting domestic change. The second condition is a range of facilitating factors responds to the adaptational pressures.¹⁵²

The 'goodness of fit' between the European and the domestic level determines the degree of pressure for adaptation generated by Europeanization on the member states: "The lower the compatibility between European and domestic processes, policies, and institutions, the higher the adaptational pressure."¹⁵³ In general, if European norms, rules, and the collective understandings attached to them are largely compatible with those at the domestic level, they do not give rise to problems of compliance or effective implementation. In brief, misfit and resulting adaptational pressures constitute the starting point for any causal mechanism discussed in the literature.

Whether misfits produce a substantial effect at the domestic level depends on the presence of various factors facilitating adaptation and serving as catalysts for domestic change. Only if

¹⁴⁹ Ibid.

¹⁵⁰ Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, op. cit. 2001, p. 3.

¹⁵¹ Tanja A Börzel and Thomas Risse-Kappen. Op. cit. 2003, p. 58

¹⁵² Ibid.

¹⁵³ Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, op. cit. 2001, p. 3..

and when these intervening factors are present can we expect a transformation of policies, politics, or polities in the member states.

1.1.5. Adaptational Processes in Response to Europeanization

Adaptational processes in response to Europeanization can be conceptualized in two ways, each of them have emphases on different aspects of the facilitating factors namely: actors and institutions. Two branches of institutionalism here is referred 'rational choice institutionalism' on the one hand, and sociological institutionalism on the other.¹⁵⁴

The logic of rational choice institutionalism suggests that Europeanization leads to domestic change through a differential empowerment of actors resulting from a redistribution of resources at the domestic level. In contrast, sociological institutionalism suggests that Europeanization leads to domestic change through a socialization and collective learning process, resulting in norm internalization and the development of new identities.¹⁵⁵ Rationalist and sociological institutionalisms identify different mechanisms of institutional change, which can be equally applied to the change of policies and politics. Facilitating factors suggested by rational choice institutionalism are:

Multiple Veto Points: The more power is dispersed across the political system, and the more actors have a say in political decision making, the more difficult it is to foster the domestic consensus or 'winning coalition' necessary to introduce changes in response to Europeanization pressures.

Existing Formal Institutions: can provide actors with material and ideational resources necessary to exploit European opportunities and to promote domestic adaptation. The European political opportunity structure may offer domestic actors additional resources. But many are unable to exploit them when they lack the necessary action capacity.¹⁵⁶

Whether actors can exploit these opportunities or circumvent the constraints depends on intervening factors such as the number of veto points in the political system, on the one hand, and the existence of supporting formal institutions, on the other. These two factors determine whether the new opportunities and constraints resulting from Europeanization in case of

¹⁵⁴ Tanja A Börzel and Thomas Risse-Kappen. Op. cit. 2003, p. 58

¹⁵⁵ Ibid.

¹⁵⁶ Ibid., p. 63 – 68

misfit translate into an effective redistribution of resources among actors and, thus, whether Europeanization does indeed lead to a differential empowerment of actors.¹⁵⁷

Facilitating factors provided by sociological institutionalism are as follows:

Change Agents or Norm Entrepreneurs: They use moral arguments and strategic options in order to persuade actors to redefine their interests and identities, engaging them in processes of social learning. Persuasion and arguing are the mechanisms by which these norm entrepreneurs try to induce change.

Political Culture and other Informal Institutions: contributing to consensus-building and cost-sharing also facilitate domestic change in response to Europeanization. Informal institutions entail collective understandings of appropriate behavior that strongly influence the ways in which domestic actors respond to Europeanization pressures.¹⁵⁸

This sociological logic of domestic change focuses on arguing, learning and socialization as mechanisms by which new norms and identities emanating from Europeanization processes are internalized by domestic actors and lead to new definitions of interests and of collective identities.¹⁵⁹

The two logics generate different propositions about the degree and direction of domestic change. Both take misfit as the necessary condition of domestic change and converge around the expectation that the lower the misfit, the smaller pressure for adaptation and thus the lower the degree of expected domestic change. But the two logics depart on the effect of high adaptational pressure.

Domestic change in response to Europeanization pressures can be weak or strong. Degrees of domestic change are distinguished into three by H eritier:

Absorption: Member states incorporate European policies or ideas into their programs and domestic structures, respectively, but without substantially modifying existing processes, policies, and institutions. The degree of domestic change is low.

Accommodation: Member states accommodate Europeanization pressures by adapting existing processes, policies, and institutions without changing their essential features and the underlying collective understandings attached to them. The degree of domestic change is modest.

Transformation: Member states replace existing policies, processes, and institutions by new, substantially different ones, or alter existing ones to the extent that their essential features and/or

¹⁵⁷ Ibid.

¹⁵⁸ Ibid.

¹⁵⁹ Ibid.

the underlying collective understandings are fundamentally changed. The degree of domestic change is high.¹⁶⁰

Consequently, and very briefly, the concept of Europeanization in this study is used as “the effect of European Integration and policies on national policies”, not as policy-making or institution-building at supranational level. In other words, Europeanization would be an already-established independent variable which has a direct impact on national policies. As our case study would be based on environmental policy in Turkey, the effect of the Europeanization Process will be much limited especially compared to members of the EU.¹⁶¹

1.1.6. Analyzing the Europeanization of Environmental Policy

Environmental policy has often been described as one of the most regulated policies at the European Union (EU) level and one that reflects a high level of Europeanization.¹⁶² It is an area where EU competencies are highly developed and at the same time high regulatory variety can be observed.¹⁶³ This makes environmental policy an interesting area of research for its content but also because of its rich impact at the domestic level.¹⁶⁴ The study of Europeanization is multi-level and inter-disciplinary by nature and what is proposed in this theoretical framework will allow reader for cross-national and cross-policy comparisons.

This section offers a discussion of Europeanization and environmental policy change as well as a comparison of the empirical findings of several articles. It is argued that two types of environmental policy exist: substantive and procedural.¹⁶⁵ Changes of a procedural nature are easier to take place because of their low political and economic cost while substantive changes are more complex and are dependent to the economic and political balance of power. The main empirical contribution of this section is that the Europeanization of environmental policy is approached through a comparison of case-studies from EU but also from non EU member states inside and outside Europe.

¹⁶⁰ Adrienne Héritier, *op. cit.* 2001, p. 44.

¹⁶¹ Thomas Diez, Apostolos Agnantopoulos and Alper Kaliber, ‘Turkey, Europeanization and Civil Society’ *South European Society and Politics* 10 (1), pp. 1-15, 2005.

¹⁶² Andrew Jordan, *Environmental Policy in the European Union*. London: Earthscan Publications, 2002.

¹⁶³ Christoph Knill, *op. cit.* 2001, p. 119.

¹⁶⁴ Christoph Knill, *op. cit.* 2001., Markus Haverland, ‘The Impact of European Union on Environmental Policies’. In *The Politics of Europeanization*, eds., K. Featherstone and C. Radaelli, 203-225. Oxford: Oxford University Press, 2003., Tanja Boerzel, ‘Towards Convergence in Europe? Institutional Adaptation to Europeanization in Germany and Spain’. *Journal of Common Market Studies* 37 (4): 573-596, 1999.

¹⁶⁵ Michael Howlett, ‘Managing the “Hollow State”: Procedural Policy Instruments and Modern Governance’. *Canadian Public Administration* 34 (4), 2000, p. 413.

Environmental policy is one of the best-researched fields of the impact of Europeanization upon the domestic level.¹⁶⁶ Knill identifies two reasons for selecting environmental policy as an area of research.¹⁶⁷ First, environmental policy is very well developed at the EU level and a comprehensive framework of regulations that the member states are called to follow exists. Second, not only a large number of regulations exist but also a diversity of regulatory instruments and practices can be found. In this section, an initial discussion of the way the theoretical framework of Europeanization can be applied in the area of environmental policy is offered. First, a summary of the development of environmental policy at the EU level and of its characteristics is discussed.

Although the Treaty of Rome made no mention of environmental policy, after the UN Conference on Human Environment in 1972, a decision was made to move it to the top of the policy agenda and consequently the first Environment Action Program was developed.¹⁶⁸ The pressure for initiating environmental regulations came from “green states” such as Germany, Denmark and the Netherlands. In the 1980s this push was made even more forceful and in 1986 with the Single European Act, a legal basis was given to environmental policy. This reforming energy in environmental policy was confined during the 1990s because of the economic climate and the cost of implementing environmental directives.¹⁶⁹ Germany, which was one of the pioneers in the area, became more restricted because of the impact of unification and the social, political and economic pressures that this brought to bear. On the other hand, countries such as the UK, which used to be a weak actor in EU environmental policy, became more active. Another interesting development was that in order to guarantee its competitiveness in an antagonistic global environment the EU acted as a driving force for the adoption of international agreements for the protection of the environment.¹⁷⁰ Finally, as far as the nature of EU environmental policy is concerned, two changes can be observed. First, the integration of environmental considerations in other sectors such as agricultural

166 Andrew Jordan and Duncan Liefferink. *The Europeanization of National Environmental Policy: A Comparative Analysis*. London: Routledge, 2004 and Christoph Knill, *op. cit.* 2001.

167 Christoph Knill, *op. cit.* 2001, p. 119

168 Alberta M. Sbragia ‘Environmental Policy’. In *Policy-Making in the European Union*, eds., H. Wallace and W. Wallace, 293-316. Oxford: Oxford University Press, pp. 293 – 298, 2000.

169 *Ibid.*

170 *Ibid.*

policy, and, second, the inclusion of the concept of “sustainable development” in its programs

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Knill provides a useful categorization of three different dimensions of the EU environmental policy.¹⁷² First, there is a variance in the nature of regulations: reactive as well as proactive regulations can be found. Second, regulations that only focus into one medium (e.g. a regulation that focuses on the quality of air) but also regulations that refer to the environment as a unity exist. Third, a multitude of regulatory instruments can be observed: numerical standards that concern the state of the environment or of the products in relation to the environment, procedural requirements concerning the authorization of industrial processes as well as the public participation and finally voluntary agreements and industrial self-regulation. This categorization is very useful for the realization of the regulatory variety that characterizes environmental policy but it is argued that another type of classification is needed in order to explore environmental policy inertia, convergence or divergence.

Following Howlett’s classification of policy instruments it is argued that two types of environmental policy exist: substantive and procedural.¹⁷³ Substantive environmental policies aim to radically reform the environmental situation at one place and/or time and they normally have general consequences for the economic competitiveness of the organization that implements them. An example of reformative environmental policy is the energy tax. Energy taxes are taxes on the production or consumption of energy that aim to reduce the energy consumption or to alter it to renewable sources in order to lessen climate change. An energy tax can be described as substantive because it affects the economic competitiveness of the unity that adopts it and it also has a redistributive character.¹⁷⁴ Procedural environmental policies are less interfering and more secondary in character. They do not really target the actual environmental damage and that is why their cost is normally lower. Howlett defines procedural policy instruments as preparatory in nature that often attempt to manipulate public opinion in favor of a change.¹⁷⁵ The definition adopted here goes a step further to also include policies that wish to pretend that they are considerably acting for the improvement of the

171 Ibid.

172 Christoph Knill, *op. cit.* 2001, p. 121

173 Michael Howlett, *op. cit.* 2000

174 Kerstin Tews, Per-Olof Busch and Helge Jörgens ‘The Diffusion of New Environmental Policy Instruments’. Paper prepared for the ECPR, Grenoble Joint Sessions of Workshops Workshop 1: New Environmental Policy Instruments, 2001

175 Michael Howlett, *op. cit.* 2000

environment when they often reflect a minimum effort for change from the part of the government or of the international organization. This does not mean that a procedural action is not important or is not difficult to implement. It does suggest though that it is often a first step to more substantive policies. A step that can last for a long time if there is no political will to move forward. An example of a procedural policy is the free access to environmental information (FAI). FAI is an important regulation concerning the citizen's access to information which is often difficult to implement at a national level. Bush, Jorgens and Tews observe that FAI has quickly spread across the globe and often by countries that do not even have the means to provide free access to their citizens.¹⁷⁶ It is part of the idea of 'good governance' and it is better described as procedural because its aim is to provide information that would allow citizens, NGOs and other interested parties to take further action to protect the environment, to raise complaints or to push for more substantive regulations. It is argued that changes of a procedural nature are easier to take place because of their lower political and economic cost while substantive changes are more complex and are dependent to the economic and political balance of power.

Do particular mechanisms of Europeanization relate to procedural or substantive types of environmental policy? Although theoretically a relationship between 'soft' mechanisms of Europeanization and procedural policies and 'hard' mechanisms and substantive changes could be expected the empirical findings do not lead to a definite answer. Weibust demonstrates that a tax on emissions that could be characterized as a substantive policy instrument has not been coerced or negotiated as an option by EU member states or internationally.¹⁷⁷ 'Softer' mechanisms such as transnational communication or diffusion of regulation on municipal waste incineration which is characterized as a procedural policy instrument when it only sets the figures and does not move to the stage of implementation have been more successful.¹⁷⁸ On the other hand, Pederson shows that a substantive measure such as CO₂ taxes has been diffused in Denmark, Sweden and Norway with no use of 'hard' mechanisms of Europeanization.¹⁷⁹ So it can easily be argued that the correlation between the content and the mechanism in Europeanization of environmental policy is not very high.

176 Jorgens Busch, P., H., and K. Tews op. cit. 2005, pp. 161 – 164.

177 Inger Weibust, 'A (Slow) Burning Issue: Convergence in National Regulation of Dioxins from Incineration.' *Policy and Society* 24 (2): 46-73, 2005.

178 Ibid.

179 Lene Holm Pedersen, 'The Europeanization of CO₂ Regulation in the Scandinavian Countries.' *Policy and Society* 24 (2), 2005, p.76.

1.2. Institutionalism

This section reviews some theoretical orientations in new institutionalist thought. It is difficult to treat new institutionalism as a coherent and unified body of thought¹⁸⁰, but one can identify three main branches: historical, sociological and rational choice variants.¹⁸¹ Rather than providing a detailed history of each theoretical orientation and a complete comparison of similarities and differences between them, the purpose of this section is first to make a categorization of institutionalist approaches as Institution based and agency based ones. Secondly, to show the defining principles of three main institutionalisms and look at how these different institutionalist orientations define institutions and deal with 'institutional change'. Thirdly, this section discusses the difficulties and problems of these theoretical orientations in terms of theorizing institutional change and how to address those problems.

1.2.1. Institution-Based and Agency-Based Approaches

In separating agency based and institution based approaches argument of: to what extent institutions can be conceived of as independent or only intervening variables in administrative change would be followed.

1.2.1.1. Institution-based Approaches

Institution based approaches emphasize the role of existing institutional configurations as independent explanatory factor in the analysis of political outcomes and institutional development. Existing institutions are considered as the primary explanatory factor in shaping institutional change. Institution based approaches regardless of their distinctive ontological conception of institutional impacts, emphasize the stability and continuity of institutions and legacies.

As a general rule, adaptation process remain incremental or path dependent, without challenging well established core patterns of existing arrangements. In other words, change occurs step by step without threatening already established and working structures. However,

¹⁸⁰ Vivien Lowndes, "Varieties of New Institutionalism: A Critical Appraisal" *Public Administration* 74: 181-197, 1996.; Peter A. Hall and Rosemary C. R. Taylor. "Political Science and the Three New Institutionalisms" *Political Studies* 44, p. 936-957, 1996; Simon J. Bulmer, "New institutionalism and the governance of the Single European Market" *Journal of European Public Policy* 5(3): 365-386, 1998.

¹⁸¹ Peter A. Hall and Rosemary C. R. Taylor. Op. Cit. 1996

this does not mean that external pressures have no impact on existing institutional structures. But they are not the single factor to be taken into consideration. Rather the process of institutional adaptation to external factors is crucially influenced by endogenous institutional dynamics determined by the institutions' "roots and routes".¹⁸² Change only can happen under the impact of existing institutional structure. Hence, institutions persist over time, although their environments may change. It is only in exceptional cases of fundamental performance crises or external shocks that the discrepancy between exogenous pressure and adaptive capacity becomes too big and old continuities are given up in order to create new continuities.¹⁸³ In this way, institution-based approaches provide us with rather clear expectations concerning the scope and mode of change.

However, by emphasizing the structuring impact of institutions and claiming that institutions influence both the strategies and interests of actors, this relatively parsimonious model risks explanatory determinism, ignoring the possibly independent influences of actors and their strategic interaction on political outcomes.¹⁸⁴ In other words, institution based approaches neglect impact of actors and their effect on politics and policies. Although it is assured - especially by historical institutionalists - that institutions constrain and refract politics but never solely cause certain outcomes,¹⁸⁵ it is received little guidance with regard to the extent to which institutions pre-structure the outcome, that is, how much institutions matter.

A further weakness emerges from the conservative aspect in institution-based explanations, ignoring the possibility that the dynamics of strategic interaction might break the boundaries of the institutional frame of reference or existing power structures.¹⁸⁶ Considering that there are instances in which institutional change goes beyond routine adaptation, this conception seems too narrow and needs to be complemented with concepts that allow for more than incremental change from the inside. In other words, step by step transformation of the institution under influence of internal institutional factors has to be supplemented with other models.

¹⁸² Ibid, 192

¹⁸³ Ibid, 193

¹⁸⁴ Ibid.

¹⁸⁵ Ibid.

¹⁸⁶ The numerous moves towards the privatization of public utilities taking place in Turkey serve as an example in this context.

To be sure, institution-based approaches are particularly dominant in the sociological institutionalism, with institutions not only enabling and constraining the specific strategies and choices of actors, but also influencing the way actors conceive of their ultimate interests in the first place. Institutions do not simply affect the strategic calculations of individuals, but also their most basic preferences and very identities. Institutions are frameworks that structure choices by providing appropriate routines and standard operating procedures.¹⁸⁷ Therefore, institutions also build up the identities and, thus the interests of the actors.

The conception of institutions as independent variables is also an important feature of historical institutionalism, which takes a rather diverse view when explaining the independent structuring impact of institutions, basing on concepts which rely more on either rational choice or sociological institutionalist perspectives. In their rationalist variant, historical institutionalists emphasize the structuring impact of institutional 'lock-ins'¹⁸⁸, where deviations from the initial path become increasingly costly or difficult as a result of the institutionally structured distribution of power between different actors.¹⁸⁹ In other words, in this situation instead of settling for little arrangements, changes or modifications are unavoidable. In its sociological perspective, historical institutionalism conceives of institutions as affecting the actors' conception of their own interests by making some political outcomes seem more feasible than others and by propagating some worldviews more widely than others.¹⁹⁰ Namely, institutions not only create routines and standards but they also figure the identities of the actors, even shape their understandings. Historical institutionalists point out that for explaining institutional change it is more necessary to recognize that 'history matters' than to figure out whether path-dependency is the result of lock-in effects, the distribution of bargaining power or the institutional reproduction of standard operating procedures.¹⁹¹ So to say, the history of an institution, which created the identity and vision of its, is important for understanding institutional alteration.

¹⁸⁷ Peter A. Hall and Rosemary C. R. Taylor, *Op. Cit.*, 1996, p. 6

¹⁸⁸ Lock-in: When an existing standard becomes almost impossible to supersede because of the cost or logistical difficulties involved in convincing all its users to switch something different.

¹⁸⁹ *Ibid.*, 8.

¹⁹⁰ *Ibid.*

¹⁹¹ *Ibid.*, 10.

1.2.1.2. Agency-based approaches

Agency-based approaches attach a less determining explanatory role to institutional factors. In contrast to the analysis from institution-based approaches, change is analyzed from the perspective of methodological individualism.¹⁹² Human action is the cornerstone of these social-science explanations. Institutions still matter, but they operate as intervening rather than independent variables between the interaction of actors and corresponding outcomes. That is to say, institutions have influence but limited, the real impact come from the actors.

Agency-based approaches explain institutional developments (their continuity or change) by reference to the existing actor group in a given institutional context. Hence they do not face the problems of determinism and conservatism in the same way that institution-based approaches do.

However, at the same time, their openness constitutes a major analytical weakness. A sound agency-based explanation would need to account for high empirical complexity. In practice, it is an enormous challenge to accurately attribute the resources, preferences and strategic orientations to the diverse set of actors involved, and hence to offer an accurate assessment of the conditions for institutional change. In other words, the real world, usually, is way too much complicated to apply the agency based approaches' tools. In this respect, the more abstract and parsimonious institution-based model is superior, and it would be argued below, can be combined with the agency-based perspective, which also makes it possible to compensate for its implicit determinism.¹⁹³

The conception of institutions as an intervening variable is most prominent in rational-choice forms of the new institutionalism. Rational-choice institutionalist approaches emphasize that institutions matter because they structure the opportunities for strategic choice and interaction. Existing institutional structures - such as the definition of responsibilities and the decision rules or procedures- restrict or provide opportunities for institutional change either by affecting the cost/ benefit calculations of the actors involved or by defining a certain

192 Christoph Knill, and Andrea Lenschow, 'Revolutionary or marginal changes in Europe? Rearranging the literature on institutional change to tackle the question of scope', 2001, 'www.arena.uio.no/events/papers/Lenschow_H-00.pdf, p. 1.

¹⁹³ Ibid, p.2

distribution of powers and resources between them.¹⁹⁴ So to say, institutions are only the surroundings which have pre-set boundaries in which actors seek their interests. In this way, institutions influence the strategies of actors to achieve their interests, but institutions have no impact on the formation of these interests, which are conceived as external to institutional analysis. According to this conception, rational choice institutionalists focus on interests as the primary, independent explanatory factor; institutions are considered to be a secondary, intervening factor for explaining political outcomes.¹⁹⁵ In other words, according to rational choice institutionalism change or transformation institutions is due to the interests of actors within the institutions.

Within the rational-choice branch of the new institutionalism, two perspectives on institutional development can be distinguished. In the field of new institutional economics, institutional development is interpreted purely from an efficiency perspective; i.e., the concept of institutions as an opportunity structure is interpreted in terms of the benefits they provide for the actors involved.¹⁹⁶ Since efficiency is the rationale for institutionalization, existing institutional arrangements will only persist as long as the costs of effecting changes outweigh prospective gains.¹⁹⁷ Namely, the change may occur only when the actors' benefit is less than the cost of not changing. The second approach within rational-choice institutionalism emphasizes the distributional effects and the struggle for power involved in creating, changing and maintaining institutions.¹⁹⁸ The change happens as a result for the struggles for getting the power.

In conclusion, for the purpose of this study the consideration of the explanatory power of institution-based and agency-based approaches yields a dilemma, as both concepts are characterized by analytical strengths as well as weaknesses. Both agency-based and institution-based approaches are therefore characterized by distinctive deficits, indicating the need to link both approaches in a way that partly compensates for their respective weaknesses.

¹⁹⁴ Ibid.

¹⁹⁵ Ibid, p. 3

¹⁹⁶ Mark D. Aspinwall & Gerald Schneider, 'Same Menu, Separate Tables: The Institutional Turn in Political Science and the Study of European Integration' *European Journal of Political Research* Vol. 38, 2000, p. 10

¹⁹⁷ Ibid.,11

¹⁹⁸ Ibid.,12

1.2.2. Historical Institutionalism

According to historical institutionalism (HI), institutions are considered to be “formal structures and informal rules or procedures, routines, norms, and conventions that structure conduct”¹⁹⁹. Thus, for HI, the term institution refers to both social and political entities such as formal organizations and structures such as informal rules. Institutions not only constrain individual behavior such as shaping actors’ strategies but also they have constitutive impact in the sense that they also define actors’ interests and goals. HI suggests that individuals, most of the time, follow socially defined rules, which might be even contrary to their self-interests.²⁰⁰

The HI is usually associated with path dependency approach (PDA).²⁰¹ Therefore, in order to have a better understanding of historical institutionalist account of institutions and institutional change, one needs to first understand the main premises and arguments of path dependency approach. This approach simply asserts that “what happened at an earlier point in time will affect the possible outcomes of a sequence of events occurring at a later point in time”.²⁰² The important factor in this definition is that ‘history matters’ and it should be taken seriously in institutional analyses. However, one can find very different conceptualizations and uses of this term in the literature. In other words, even there is a consensus that ‘history matters’, why and how history matters is still an issue of controversy.²⁰³ Keeping this in mind, let’s look at the defining ideas and premises of this approach.

Contingency: According to PDA, paths emerge out of some contingent occurrences, either in the first place or at critical moments that lead to a different path.²⁰⁴ Contingency, here, refers to inability to explain those events by prior events or initial conditions.²⁰⁵ These contingent

¹⁹⁹ Kathleen Thelen, and Sven Steinmo. “Historical institutionalism in comparative politics” In Sven Steinmo, Kathleen Thelen and Frank Longstreth (Eds.) *Structuring Politics: Historical Institutionalism in Comparative Perspective*. Cambridge: Cambridge University Press, 1-33, 1992; Peter A. Hall and Rosemary C. R. Taylor. Op. Cit. 1996, p. 938.

²⁰⁰ Kathleen Thelen, and Sven Steinmo. Op. Cit. 1992, p. 8.

²⁰¹ Ibid., p. 2

²⁰² Peter A. Hall and Rosemary C. R. Taylor. Op. Cit. 1996, p. 939.

²⁰³ Ian Greener, “The Potential of Path Dependence in Political Studies” *Politics* 25(1): 62-72,2005; Herman Schwartz, “*Down the Wrong Path: Path Dependence, Markets and Increasing Returns*”, 2005. Available at: <http://www.people.virginia.edu/~hms2f/> Accessed: July 12, 2009.

²⁰⁴ W. Brian Arthur, *Increasing Returns and Path Dependence in the Economy*. Ann Arbor: University of Michigan Press, 1994, pp. 37, 44 – 45; James Mahoney, “Path Dependence in Historical Sociology” *Theory and Society* 29, p. 511, 2000; Paul Pierson, “Increasing Returns, Path Dependence, and the Study of Politics” *The American Political Science Review* 94(2), p. 253, 2000; Francesca Gains, Peter C. John, and Gerry Stoker. “Path Dependency and The Reform of English Local Government” *Public Administration* 83(1), p. 28, 2005.

²⁰⁵ James Mahoney. Op. Cit. 2000, p. 507.

small occurrences are important since they have large and long-term impact leading to certain paths.²⁰⁶

Multiple Equilibria: Initially, there might be multiple options for actors.²⁰⁷ In the words of Arthur, “often there is a multiplicity of patterns that are candidates for long-term self reinforcement; the accumulation of small events early on ‘pushes’ the dynamics into the orbit of one of these and thus ‘selects’ the structure that the system eventually locks into. The selected pattern is not necessarily the most efficient pattern. It might lead to suboptimal outcomes.”²⁰⁸

Inflexibility/Inertia: The paths, once created, are inflexible in the sense that further steps on a certain path make shifting from that path to another one much difficult.²⁰⁹ In other words, once certain equilibrium is reached, this equilibrium maintains itself (locks itself in). Mahoney states that “once contingent historical events take place, path-dependent sequences are marked by relatively deterministic causal patterns or what can be thought of as ‘inertia’- i.e. once processes are set into motion and begin tracking a particular outcome; these processes tend to stay in motion and continue to track this outcome”.²¹⁰ “These paths do not have to be the most effective ones; ineffective and inefficient institutions might lock themselves in either.”²¹¹

Production vs. Reproduction of a Path: PDA separates the mechanisms of production from the mechanisms of reproduction (self-reinforcement). Stinchcombe suggests that “The first is the particular circumstances which caused a tradition [i.e. an institution] to be started. The second is the general process by which social patterns [i.e. institutional patterns] reproduce themselves”.²¹² Thus factors that reproduce an institution are not necessarily the same with the ones that created that path in the first place. This suggests that paths persist even in the absence of processes that led to development of that path.²¹³ As indicated above, for PDA

²⁰⁶ Herman Schwartz. Op. Cit. 2005, p. 4

²⁰⁷ W. Brian Arthur. Op. Cit. pp. 112 – 113, 1994; James Mahoney. Op. Cit. 2000; James Mahoney, “Path-Dependent Explanations of Regime Change: Central America in Comparative Perspective” *Studies in Comparative International Development* 36(1): 111-141, 2001; Paul Pierson. Op. Cit. 2000, p. 263

²⁰⁸ W. Brian Arthur. Op. Cit. 1994, p. 33

²⁰⁹ Paul Pierson. Op. Cit. 2000, p. 157

²¹⁰ James Mahoney. Op. Cit. 2000, p. 511,

²¹¹ Colin Hay and Daniel Wincott. “Structure, Agency and Historical Institutionalism”, *Political Studies* XLVI, 1998, p. 954,.

²¹² Cited in James Mahoney. Op. Cit., 2000, p. 512

²¹³ James Mahoney. Op. cit. 2001, p. 114,

paths emerge as a result of contingent occurrences but factors that reproduce a path are not necessarily random occurrences. One main mechanism of this reproduction (self reinforcement) process is increasing returns (or positive feedback). Pierson states that in case of increasing returns “each step along a particular path produces consequences which make that path more attractive for the next round”.²¹⁴ Some sources of self-reinforcing mechanisms are identified as learning effects, coordination effects, adaptive expectations and fixed costs (increasing outputs decreases unit costs).²¹⁵

Change: The general tendency in PDA is to treat change as an incremental, evolutionary, path dependent development.²¹⁶ Substantial, revolutionary, path-breaking changes happen at critical moments, which are choice points.²¹⁷ At these branching points, which are usually caused by some externally driven developments, disturbances or shocks,²¹⁸ a new institutional path emerges among many choices. Once an option is chosen, it becomes difficult to return to initial conditions. In other words, the period following these critical moments is characterized by inertia.

Based on such an approach, HI tends to view institutional change as a sudden collapse of institutional equilibria, stability or patterns by external shocks.²¹⁹ The popular notion of ‘punctuated equilibria’ refers to such rapid deviations from the path.²²⁰ These paths are usually punctuated by external crises at critical moments such as wars, financial crises, natural disasters, etc. At these branching points a new path emerges. Otherwise, institutional change is expected to be ‘incremental and path dependent’.²²¹

²¹⁴ Paul Pierson. Op. Cit. 2000, p. 253

²¹⁵ Ibid, p. 254; W. Brian Arthur. Op. Cit. 1994, p. 112

²¹⁶ James Mahoney. Op. cit. 2001; Paul Pierson 2001. “The Limits of Design: Explaining Institutional Origins and Change”, *Governance: An International Journal of Policy and Administration* 13(4):475-499, 2001; Dionyssis G. Dimitrakopoulos, “Incrementalism and Path Dependence: European Integration and Institutional Change in National Parliaments” *Journal of Common Market Studies* 39(3): 405-422, 2001; Robert Cox, “The Path-Dependency of an Idea: Why Scandinavian Welfare State Remain Distinct” *Social Policy and Administration* 38(2): 204-219, 2004.

²¹⁷ James Mahoney. Op. cit. 2001, p. 113.

²¹⁸ Gerard Alexander, “Institutions, Path Dependence, and Democratic Consolidation.” *Journal of Theoretical Politics*, 13(3): 249-270, 2001.; Herman Schwartz. Op. Cit. pp. 11 – 12, 2005.

²¹⁹ Andre Lecours, *New Institutionalism: Theory and Practice*. Toronto: University of Toronto Press, 3- 27, 2005; Siobhan Harty, “Theorizing Institutional Change” In Andre Lecours (Ed.) *New Institutionalism: Theory and Analysis*. Toronto: University of Toronto, 2005, p. 60

²²⁰ James Mahoney. Op. cit.2001, p. 113

²²¹ Dionyssis G. Dimitrakopoulos. Op. cit. 2001; Joachim Blatter, “Beyond Hierarchies and Networks: Institutional Logics and Change in Transboundary Space”, *Governance: An International Journal of Policy, Public Administration and Institutions* 16(4), 2003, p. 508

One criticism against HI, however, is that even though HI is better suited to explain the persistence of patterns and continuities, it remains limited in explaining shifts in these patterns, namely institutional change or institutional evolution.²²² The main concern of HI is the persistence of those patterns over time. This makes HI quite strong in terms of analyzing deviations from the paths but still weak in terms of explaining the reasons for and mechanisms of such shifts.

The weakness of HI in explaining institutional change is a direct result of lack of a strong account of institutional change in PDA. As it is shown above, PDA treats initial conditions or events as random occurrences. However, if “non-predictable, small, contingent events lead to the emergence of certain paths”²²³, then we should expect these small, contingent events to occur anytime. If that is the case then at any time a certain path might be broken and a new path might emerge by these random occurrences. However, this sounds contradictory to the assumptions of PDA. As indicated before, one characteristic of path dependent process is inflexibility.²²⁴ In the words of Pierson, inflexibility refers to situations in which “the farther into the process we are, the harder it becomes to shift from one path to another”.²²⁵ If small random events can occur at any time and have such a large effects leading to new paths, then this assumption is not reconcilable with the assumption of inflexibility of institutional paths.

Other than this, such an understanding of initial conditions and of events limits our ability to predict ‘critical junctures’, which make substantial change possible.²²⁶ Critical junctures are characterized by “the adoption of a particular institutional arrangement from among two or more alternatives. These junctures are “critical” because once a particular option is selected it becomes progressively more difficult to return to the initial point when multiple alternatives were still available.”²²⁷ The selection of a particular institutional arrangement at these critical junctures (or critical moments) is defined as a contingent process, which are not predictable.

²²² Peter A. Hall and Rosemary C. R. Taylor. Op. Cit. p. 942, 1996; Kathleen Thelen, and Sven Steinmo. Op. Cit. p.15, 1992; Colin Hay and Daniel Wincott. Op. cit. p. 955, 1998; Ernst B. Haas, “Introduction: Institutionalism or Constructivism?” In Ernst B Haas. *The Uniting of Europe: Political, Social and Economic Forces 1950-1957*. Notre Dame: University of Notre Dame Pres, 2004; B. Guy Peters,, Jon Pierre, and Desmond S. King. “The Politics of Path Dependency: Political Conflict in Historical Institutionalism” *The Journal of Politics* 67(4):1275-1300, 2005.

²²³ James Mahoney. Op. Cit. 2000, p. 513

²²⁴ W. Brian Arthur. Op. Cit. 1994, p. 28

²²⁵ Paul Pierson. Op. Cit. 2000, p. 253

²²⁶ Ian Greener, “The Potential of Path Dependence in Political Studies” *Politics* 25(1), p. 64, 2005; B. Guy Peters, Jon Pierre, and Desmond S. King. Op. Cit. 2005, p. 1289

²²⁷ James Mahoney. Op. Cit. 2000, p. 513

²²⁸ This limits the PDA in the sense that path deviation becomes almost a non-predictable event. PDA separates the mechanisms of production from reproduction. The process of reproduction (increasing returns for instance) can be explained and predicted but the mechanisms of production are non-explicable, non-predictable random phenomena. That's why PDA, and thus HI do not provide a satisfactory explanation for the timing of institutional change.

In addition, HI neglects incremental changes. As Peters, Pierre, and King suggest, "if one's theory conceptualizes change in terms of major events rather than incremental development then smaller changes are defined away, even if those incremental changes cumulatively produce significant change".²²⁹ In brief, punctuated equilibrium/critical juncture perspective, which forms the basis of HI, does not tell us much about the conflicting nature of institutional change, about the timing and directions of change process.

1.2.3. Sociological Institutionalism

Sociological institutionalism (SI), also labeled as normative institutionalism, provides a broader definition of institutions. According to March and Olsen an institution is a "relatively stable collection of practices and rules defining appropriate behavior for specific groups of actors in specific situations".²³⁰ Such practices and rules are embedded in structures of meaning and schemes of interpretation that explain and legitimize particular identities and the practices and rules associated with them. Thus, the notion of institution, for SI, includes not only formal rules, procedures, or norms but also informal norms, beliefs, values, symbols, cognitive scripts, and systems of meanings.²³¹

According to SI, institutions have not only a regulative but also a constitutive impact on actors in the sense that institutions shape actors' identities. Since identities are considered the basis of interests,²³² SI treats interest as internal to political processes rather than external. In

²²⁸ Ibid.

²²⁹ B. Guy Peters, Jon Pierre, and Desmond S. King. Op. Cit. 2005, p. 1277

²³⁰ James G. March and Johan P. Olsen. "The Institutional Dynamics of International Political Orders," *International Organization* 52(4), 1998, p. 948

²³¹ Vivien Lowndes, op. cit. p. 192, 1996; Peter A. Hall and Rosemary C. R. Taylor. Op. Cit. p. 947, 1996; B. Guy Peters, *Institutional theory in political science: the new institutionalism*. London ; New York : Pinter, 1999, p. 28.

²³² Alexander Wendt, *Social Theory of International Politics*. New York: Cambridge University Press, 1999.

other words, actors themselves and their interests are socially constructed elements.²³³ One mechanism, through which institutions have constitutive impact on actors, is that institutions provide a logic of appropriateness. It was developed by March and Olsen against the utilitarian, instrumental logic, which they labeled as the logic of consequentiality (LoC).²³⁴ They argue that “[for instrumentalist theory]... action is choice, choice is made in terms of expectations about its consequences, meanings are organized to affect choices, and symbols are curtains that obscure the real politics, or artifacts of an effort to make decisions”.²³⁵ Thus the primary concern for the LoC is the expectations of consequences in terms of material interests. For March and Olsen, however, LoC ignores the role of identities, rules, and institutions in shaping human behavior.²³⁶ Politics, it is argued, “is organized by a logic of appropriateness”.²³⁷ According to this logic, actions are rule-based in the sense that actors follow certain rules and practices that are socially constructed.²³⁸ In the words of March and Olsen “within a logic of appropriateness, a sane person is one who is ‘in touch with identity’ in the sense of maintaining consistency between behavior and a conception of self in a social role”.²³⁹ Thus, the source of action for LoA is necessity rather than preference. Institutions, as sets of norms, values, meanings, and procedures, provide a logic of appropriateness that shape actors interests and limit behavior.

Institutional Change: In terms of institutional change, like HI, SI is also more concerned with explaining the persistence of institutions rather than changes in institutional structure.²⁴⁰ March and Olsen argue that “Institutions preserve themselves, partly by being resistant to many forms of change, partly by developing their own criteria of appropriateness and success, resource distribution, and constitutional rules. Routines are sustained by being embedded in a structure of routines, by socialization and by the way they organize attention.”²⁴¹ Thus SI expects a high degree of durability and stability rather than change in the institutional world.

²³³ Klaus Nielsen, “Institutionalist Approaches in the Social Sciences: Typology, Dialogue, and Future Challenges.” *Journal of Economic Issues* 35(2), p. 505, 2001; Andre Lecours, op. cit, 2005, p.11

²³⁴ James G. March and Johan P. Olsen. “The New Institutionalism: Organizational Factors in Political Life,” *American Political Science Review* 78(3): 734-749, 1984.

²³⁵ Ibid, p. 741.

²³⁶ James G. March and Johan P. Olsen. Op. cit, 1998, p. 951

²³⁷ Ibid.

²³⁸ Ibid, p. 952

²³⁹ Ibid.

²⁴⁰ Vivien Lowndes, op. cit. 1996, p. 192; B. Guy Peters, Jon Pierre, and Desmond S. King. Op. Cit. 2005, p. 1283

²⁴¹ James G. March and Johan P. Olsen. Op. cit, 1998, p. 959

Therefore, the main concern of SI is to explain the persistence of values, rather than their initiation or evolution into different forms.

That been said, there is also some room for change in SI. This approach treats institutional change as convergence or diffusion.²⁴² One mechanism of convergence is isomorphism.²⁴³ For DiMaggio and Powell institutional isomorphism is a situation in which:

Organizations tend to model themselves after similar organizations in their field that they perceive to be more legitimate or successful. The ubiquity of certain kinds of structural arrangements can more likely be credited to the universality of mimetic processes than to any concrete evidence that the adopted models enhance efficiency.²⁴⁴

Thus, as a result of institutional diffusion, institutions in a similar domain tend to become similar. Institutions simply imitate successful institutional practices.

Similar to HI, in SI, the source of change is usually external. In case of isomorphism, for instance, we see that the source of change is the interaction of the institution at hand with other institutions. Moreover, changes in the environment of the institution such as changes in general social, political and cultural environment are also expected to lead to changes within institutions.²⁴⁵ Thus, for SI, institutional change take place as a result of responding changes in the environment but this change is an incremental, slow process.

However, SI still remains weak in theorizing the process of transition from one logic of appropriateness to another one. In the words of Finnemore and Sikkink "...claims that actors conform to 'logics of appropriateness' say little about how standards of appropriateness might change".²⁴⁶ The main focus of SI is norm compliance rather than changes in normative structure.²⁴⁷

As Stacey and Rittberger rightly state:

²⁴² Andre Lecours, op. cit, 2005, p.12

²⁴³ Paul J. DiMaggio and Walter W. Powell. (Eds.). *The New Institutionalism in Organization Analysis*. Chicago: University of Chicago Press,1991.

²⁴⁴ Ibid, p. 70

²⁴⁵ Johan P. Olsen, "Garbage Cans, New Institutionalism, and the Study of Politics." *American Political Science Review* 95(1), 2001, p. 195

²⁴⁶ Martha Finnemore and Kathryn Sikkink. "International Norm Dynamics and Political Change" *International Organization* 52(4), 1998, p. 888

²⁴⁷ Jeffrey Stacey and Berthold Rittberger. "Dynamics of formal and informal institutional change in the EU", *Journal of European Public Policy* 10(6), 2003, p. 866.

... the LoA is unable to provide the action-theoretical mechanism implied in the process by which inter-subjectively shared and constitutive ideational factors (such as norms) can be challenged and changed over time. What the LoA can do is to account for how these inter-subjectively shared ideational factors, once changed, become constitutive for actors' identities and explanatory for appropriate action. Precisely because norms are made constitutive for actors' identities and are followed because of a 'conception of necessity', however, the LoA cannot account for the action-mechanism implied in the change from one normative context to another.²⁴⁸

The notion of institutional isomorphism in SI is also limited in explaining institutional change in the sense that institutions may imitate several other institutions which might be considered more or less equally legitimate and successful. Then the question is why this but not the other institution is being imitated. SI does not provide a satisfactory answer to this question. In addition, convergence or diffusion processes are treated as consensual processes. This becomes problematic since most institutional changes have distributional consequences. Institutional isomorphism underestimates distributional consequences and actors' preferences over institutional change. Following quotation from March and Olsen shows clearly the absence of agency in the sociological institutionalist account of the process of institutional change:

For the most part, institutions evolve through a relatively mundane set of procedures sensitive to relatively diffuse mechanisms of control. Ideas about appropriate behavior ordinarily change gradually through the development of experience and the elaboration of world views. Such processes tend to result in significant lags in the adjustment of institutions to their environments. The lags, in turn, make institutional history somewhat jerky and sensitive to major shocks that lead not only to occasional periods of rapid change but also to considerable indeterminacy in the direction of change.²⁴⁹

Thus, in general, SI has a static notion of institutions and it is much more successful in theorizing norm compliance than norm selection or normative change.

1.2.4. Rational Choice Institutionalism

Even though rational choice institutionalism (RCI) differs from the conventional rational choice approach, there are some similarities. For instance both have the same ontology: 'instrumentally rational actors'. Actors are assumed as behaving instrumentally to achieve a

²⁴⁸ Ibid.

²⁴⁹ James G. March and Johan P. Olsen. *Rediscovering Institutions*. New York: Free Press, 1989, pp. 170 – 171.

set of preferences.²⁵⁰ The main difference, however, is the stronger emphasis on the role of institutions in RCI. Accordingly, institutions limit the choices individuals are likely to make as they pursue their interests and the way they achieve their objectives.²⁵¹

For the rational choice variant of institutionalism, institutions are simply ‘the rules of the game.’²⁵² These rules, for RCI, are usually associated with material.²⁵³ Such a conceptualization, however, remains limited in the sense that RCI pays more attention to formalized rules in material structures while ignoring informal rules such as norms, values.²⁵⁴ Thus, compared to HI and SI, rational-choice definition of institution puts less emphasis on cultural elements.

According to RCI, actors create institutions (formal and informal) to increase means-ends efficiency; to enhance the collective welfare or economic growth.²⁵⁵ As Bates states, in contractarian, rational-choice variant of institutionalism, “institutions are treated as a means for resolving collective dilemmas.”²⁵⁶ Collective dilemmas arise when choices made by rational individuals lead to outcomes that no one prefers [for instance prisoner’s dilemma situations]”. Thus, RCI has a very functionalist view of institutions in the sense that the main function of institutions is their contribution to the utility-maximization process. Institutional creation, then, becomes a conscious, voluntary process for RCI.

RCI accepts that self-interested rational actors do follow norms but this is more a matter of choice and norms in RCI play a regulative role rather than a constitutive one.²⁵⁷ Institutions form a strategic context, which constraints self-interested actors rather than shaping actors’ interests.²⁵⁸ As Lecours notes:

²⁵⁰ John L. Campbell, *Institutional Change and Globalization*. Princeton and Oxford: Princeton University Press, 2004, p. 15.

²⁵¹ Ibid.

²⁵² Douglas C. North, *Institutions and Institutional Change and Economic Performance*. New York: Cambridge University Press, 1993, p. 36.

²⁵³ Andre Lecours, op. cit. 2005, p.6

²⁵⁴ Vivien Lowndes, op. cit. p. 192, 1996; Kurt Weyland, “Limitations of rational-choice institutionalism for the study of Latin American Politics.” *Studies in Comparative International Development* 37(1), 2002, p. 67

²⁵⁵ Robert H. Bates, *Contractarianism: Some Reflections on the New Institutionalism*” *Politics and Society* 16(2-3), 1988, p. 387; Douglas C. North, *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press, 1990; John L. Campbell, op. Cit. 2004, p. 15.

²⁵⁶ Robert H. Bates, Op. Cit. 1988, p. 387

²⁵⁷ Martha Finnemore and Kathryn Sikkink. Op. Cit. 1998, p. 913.

²⁵⁸ Kathleen Thelen, and Sven Steinmo. Op. Cit. 1992, p. 7.

For the most rationalist-minded new institutionalist, the impact of institutions is felt strictly on strategies. The interests and preferences of actors are formed independently of the specific institutional environment; they follow a logic of power maximization. In other words, the formation of preferences and the definition of objectives occur, in analytical terms, before any institutional weight is felt.²⁵⁹

Institutional Change: For RCI, any change in the rules of the game means emergence of a new institution. Shepsle puts it, “When an institution is transformed – endogenously, as when the rules of procedure are changed or a contract renegotiated in a prearranged fashion; or exogenously by some unanticipated shock to the system – it is not the same institution anymore”.²⁶⁰

According to RCI, like institutional creation, institutional change is also an intentional act. In other words, for RCI, institutions are ‘objects of choice’. Then institutional change becomes strategic action of individuals.²⁶¹ Thus RCI provides a utilitarian view of institutional change.²⁶² Accordingly, when institutional setting produces dysfunctional or sub-optimal outcomes, actors search for alternative arrangements to maximize their utilities.

²⁵⁹ Andre Lecours, op. cit, 2005, p.11

²⁶⁰ Kenneth Shepsle, “A Comment on Institutional Change” *Journal of Theoretical Politics* 13(3), 2001, p. 141

²⁶¹ Klaus Nielsen, “Institutionalist Approaches in the Social Sciences: Typology, Dialogue, and Future Challenges.” *Journal of Economic Issues* 35(2), 2001, p.505.

²⁶² Andre Lecours, op. cit, p.12, 2005

Table 1.2: Differences between Institutionalisms

	Definition of Institution	The Role of Institutions	Institutional Change	Structure vs. Agency	Interests
HI	- <i>formal structures and informal rules or procedures that structure conduct</i>	- <i>regulative and Constitutive impact (structure actors' options and interest formation)</i>	- <i>incremental, path dependent</i> - <i>new paths at critical junctures [punctuated equilibrium]</i> - <i>externally driven</i> <i>Crisis situations as the sources of path breaking change</i>	- <i>emphasis on structure</i>	- <i>external, shaped by institutional processes</i>
SI	- <i>a broader definition: formal rules, procedures, norms, symbols systems, cognitive scripts and moral templates</i>	- <i>regulative and constitutive impact on actors</i> - <i>provide logic of appropriateness</i>	- <i>infrequent, incremental</i> - <i>change stimulated by external factors [adaptation to changes in the environment]</i> - <i>change happens through isomorphism</i> <i>Or diffusion.</i>	- <i>structure emphasized, weak agency</i>	- <i>external</i> <i>To institutional process,</i> - <i>socially constructed</i>
RCI	- <i>the rules of the game (usually formalized)</i> - <i>a strategic context for interaction among actors</i>	- <i>structure interactions among rational actors</i> - <i>contribute means ends efficiency</i>	- <i>changing the rules of the game leads to a new institution</i> - <i>change as a strategic, deliberate action</i>	- <i>agency primary factor</i>	- <i>external</i>

Inspired by: Aspinwall, Mark D. & Gerald Schneider, 'Same Menu, Separate Tables: The Institutional Turn in Political Science and the Study of European Integration' *European Journal of Political Research* Vol. 38, 2000

1.2.5. General Assessment of Three Institutionalisms

Considering all above, it would be unfair to conclude that new institutionalism totally ignores institutional change. As indicated above, theoretical orientations in new institutionalist thought have some say on institutional change. However, the literature review indicates that these approaches provide a weak account of institutional change. This is because the general tendency in new institutionalism is that institutions are usually “associated with continuity in the sense that institutions are by nature inertial and linked to regularities in human behavior.”²⁶³ Institutions are treated as sticky, change-resistant, rigid, persistent entities.²⁶⁴

²⁶³ Ibid, p. 11; Mamoudou Gazibo, “New Institutionalism and the Crisis of Transitology” In Andre Lecours (Ed.) *New Institutionalism: Theory and Analysis*. Toronto: University of Toronto, 2005, p. 163.

Since changes in institutional structures are not the primary concern in many institutionalist approaches, which assume institutional continuity, most institutionalist accounts pay relatively less attention to institutions themselves.²⁶⁵ According to Harty:

The origin of institutions remains under-theorized and, more crucially for assessing the merits of new institutionalism, the notion of institutional change is not problematized in the literature. While institutional collapse has been a focus of investigation in the study of domestic politics, it has most often been examined in the context of regime collapse. The possibility of institutional change is the Achilles' heel of new institutionalism: If it can be proven that institutions are not as stable and continuous as new institutionalist theories claim, then new institutionalism's potential for explaining preference formation, discursive practices, and strategic action will clearly diminish.²⁶⁶

She is accurate about the constraint of new institutionalism in terms of theorizing institutional change. However, it is not easy to admit the argument that if institutions are not as stable and continuous as new institutionalist theories assume, then this would deteriorate new institutionalism in terms of explaining preference formation and strategic action. Contrary to this argument, the event of institutional change provides opportunities for institutionalist thinking to show the institutional impact in political world. In other words, if institutions matter and they have autonomous impact and regulate the courses of actions, then change in institutions themselves would also lead to changes in political outcomes and behaviors. Thus, more theoretical efforts analyzing institutional change and its implications would authorize new institutionalism in terms of showing the role of institutions in the political world rather than reduce new institutionalism's potential.

One suggestion for justifying the weakness of institutionalist literature in terms of theorizing institutional change is paying more attention to agency.²⁶⁷ This would be an important remedy for the weaknesses of new institutionalism in the sense that we see that new institutionalism lacks a 'dynamic'. As Finnemore states:

Institutionalist models imply a world of social structure made up of norms that are largely congruent. Their emphasis is on the mutually reinforcing and expansive nature of these norms. They stress the consensus that arises around various cultural models- of citizenship, of statehood, of education, of individual rights- to the point that these norms and institutions are taken for granted in contemporary life. The implication is that the spread of world culture is

²⁶⁴ Paul Pierson, op. cit. 2001, p. 490; Michael J. Gorges, "Blind Valley, New Institutional Explanations for Institutional Change: A Note of Caution," *Politics* 21(2), 2001, p. 140; Kenneth Shepsle, op. Cit. 2001, p. 322; Ernst B. Haas, op. cit. 2004; Siobhan Harty, op. Cit. 2005, p. 59.

²⁶⁵ Siobhan Harty, op. Cit. 2005, p. 59

²⁶⁶ Ibid.

²⁶⁷ B. Guy Peters, Jon Pierre, and Desmond S. King. Op. Cit. 2005.

relatively peaceful. Institutionalists specify no sources of instability, conflict, or opposition to the progressive expansion of world culture.²⁶⁸

If institutionalists fail to specify the source of instability, conflicts or institutional change, this is a direct result of weak account of agency in the institutionalist thought.²⁶⁹ Because of this weak agency, the processes of coalition formations, bargaining, power struggles and conflict among institutional actors have been disregarded (also see Colomy 1998:269).²⁷⁰ For instance, when it is looked at the notion of institutional change in each of these approaches, especially in HI and SI, it is seen that human agency is either absent or has a quite limited role in the process of institutional change. For instance, critical juncture perspective on institutional change in historical institutionalism has quite weak agency in the sense that agents wait for critical junctures to happen. Once external shocks/ disturbances take place and create a crises situation for the institution then agents may discover opportunities for institutional change at those extraordinary moments. Such an understanding ignores conscious attempts by institutional actors during ordinary times to change existing institutional structure in order to realize their material and/or ideational interests. As Cortell and Peterson rightly argue “...focusing attention on periods of radical change precipitated by crisis, a model of punctuated equilibrium downplays the roles individuals play in affection domestic structural change. This is unfortunate since institutions ‘do not change of their own accord, they are changed’.”²⁷¹ Similarly, Peters, Pierre and King note that:

....without including some dynamic conception of agency, and including a greater role for political conflict, the approach [historical institutionalism] cannot provide an adequate explanation for change. ...it is crucial to build a greater role for agency into this structuralist theory. The identification of the agent(s) becomes the means through which internal dissensus and inputs from the environment can be translated into change activity.²⁷²

Thus, shifting the attention to actors would provide this dynamic. This makes RCI much more advantageous in terms of explaining institutional change. RCI provides a very narrow understanding of institution and so institutional change. For RCI, institutions are the rules of

²⁶⁸ Martha Finnemore, “Norms, Culture and World Politics: Insights from Sociology’s Institutionalism,” *International Organization* 50(2), 1996, p. 343.

²⁶⁹ Paul Colomy, “Neofunctionalism and Neoinstitutionalism: Human Agency and Interest in Institutional Change,” *Sociological Forum*, 13(2):265-300, 1998;

²⁷⁰ *Ibid*, p. 269.

²⁷¹ Andrew P. Cortell and Susan Peterson. “Altered States: Explaining Domestic Institutional Change” *British Journal of Political Science* 29, 1999, 179.

²⁷² B. Guy Peters, Jon Pierre, and Desmond S. King. *Op. Cit.* 2005, p. 1277 – 1285.

the game and institutional change refers to changing those rules. However, such a general approach does not tell us much about institutions and institutional change. Moreover, as indicated above, institutional definition in RCI ignores normative factors.

This study adopts an eclectic approach in analyzing institutional change in the sense that it borrows different tools from different institutionalist orientations. Such an eclectic approach is useful, considering the fact that neither of existing institutional orientations alone is capable enough to deal with institutional change. Therefore, this study borrows from sociological, historical and rational-choice institutionalisms. An analysis of changes in structure requires paying more attention to agency. In that sense, the rational choice variant of institutionalism, which has stronger account of agency, becomes useful for analyzing change. Sociological institutionalism and historical institutionalism, on the other hand, provides useful tools (e.g. logic of appropriateness) for understanding how institutional structure shapes actors' interests and behaviors during structural changes. This is important because strategic interactions do not take place in a vacuum. Actors interact within a normative context and this normative, social context structure both these interactions and their outcomes. As a result, borrowing from these three approaches becomes a necessity in analyzing institutional change. The following section suggests a method of how and when to choose the appropriate variant of institutionalism.

1.2.5.1. Levels of Abstraction of Different Institutional Approaches

The different levels of abstraction chosen in different institutional approaches are closely related to their conception of institutions as independent or intervening variables in explaining individual action and political outcomes; the former sees the issue with a broader view and the latter remaining on the spot.

Remote level abstraction, i.e., taking a bird's eye view in evaluating institutional change, is typical for institution based approaches. By contrast, agency based approaches, which considers institutions as an intervening variable structuring strategic interaction, tend to assess institutional changes on the spot, i.e., they view the levels of empirical observation and analytical evaluation as the same. The affected actors are followed through the institutional jungle. Changes in the structure of regulatory agencies, for instance, are not evaluated in the light of a macro institutional context (such as the conception of state and market relations),

but by reference to the distribution of power between different actors situated in the respective regulatory environment.²⁷³ In other words, not an outsider but an insider view is chosen to analyze and evaluate the situation.

The distinctive level of abstraction, as inherent in institution-based and agency-based approaches, has important consequences for the interpretation of political developments. With increasing remoteness, the scale of change is diminishing. For instance, the privatization of the state-owned utilities is dramatic from an individual or organizational perspective; it might even constitute a sectoral revolution.²⁷⁴ But at the same time the mode of the reform may remain in line with the legal and administrative traditions of the country in question and, on this basis, be judged as incremental.²⁷⁵ That is to say, developments can be perceived ultimately different due to the level of abstraction of the distinctive approaches. Given the adoption of a more remote level of abstraction by institution-based approaches, their emphasis on persistence and continuity is not surprising. On the other hand, the proximate perspective taken by agency-based approaches explains their more open expectations towards change or persistence.

When considering the distinctive explanations for these changes, as they are offered by rational-choice and historical institutionalists, it becomes evident that both approaches focus on the same phenomena from different analytical levels. Rational-choice institutionalists interpret the changes basically from a sector-based perspective. Given this view, it comes as no surprise that rational-choice scholars characterize the institutional transformations as path-breaking reforms which cannot be explained by emphasizing gradually institutional routine adaptations.²⁷⁶ They argue that rapid technological innovation combined with the globalization of markets has significantly altered the powers, resources, as well as the costs and benefits of the sectoral actors, thereby challenging the existing institutional equilibrium, and in fact favoring new arrangements.²⁷⁷ Namely, according to rational-choice institutionalists, institutional change is a result of change in the world order and technology,

²⁷³ Cristoph Knill & Dirk Lehmkuhl, 'The National Impact of European Union Regulatory Policy: Three Europeanization Mechanisms'. *European Journal of Political Research* Vol. 41, 2002, p. 256.

²⁷⁴ Sasan Fayazmanesh & Marc R. Tool, (eds.) *Institutionalist Theory and Applications: Essays in Honor of Paul Dale Bush*, Cheltenham: Edward Elgar, 1998, p. 36

²⁷⁵ Ibid.

²⁷⁶ Ellen M. Immergut, 'The theoretical core of the new institutionalism' *Politics & Society* 26 (1), 1998, p.25.

²⁷⁷ Ibid.

thus change in institutions means new arrangements for new situations outside the institution, not a routine of the institution.

Scholars applying a historical institutionalist perspective, come to rather different conclusions. This can be traced to the fact that they evaluate change not from a sectoral but from a macro-institutional perspective. Taking this more remote analytical focus, sectoral changes are characterized as 'appropriate adaptations' in the light of the particular macro institutional background of the state and administrative traditions.²⁷⁸ Rather than emphasizing institutional convergence, these scholars point to the path-dependency of sectoral changes.²⁷⁹ In other words, sectoral changes occur, since there are macro-institutional causes that make them occur.

Given the general preference that different institutional approaches have of evaluating change from different analytical levels, there is a risk that the varying approaches ignore each other's contributions and analytical insights. This problem becomes particularly prominent when different institutional explanations are compared without acknowledging that they operate from distinctive analytical reference levels. On the other hand, it would be demonstrated in the following, the use of different levels of abstraction - when explicitly acknowledged - might serve as important starting-point for linking deterministic and indeterminate approaches in a complementary way.

1.2.5.2. Combining Different Level of Analysis

It is seen that institution-based and agency-based approaches not only operate from distinctive levels of abstraction; they are also characterized by particular explanatory strengths and weaknesses. While the conservative trend of institution-based approaches provides us with clear expectations on the scope of institutional change, the inherent deterministic trend is at the same time a major weakness. Namely, pre-determination which is allowed in this approach can be considered as the handicap of it. Agency-based approaches, by contrast, avoid the problem of determinism, but suffer from their openness, which makes pre-determined hypothesizing very difficult. It is argued that the acknowledgement of different levels of abstraction, and hence the distinctive explanatory value associated with institutions,

²⁷⁸ Sven Steinmo, Kathleen Ann Thelen & Frank Longstreth, (eds.) *Structuring politics : historical institutionalism in comparative analysis*, New York : Cambridge University Press, 1992, p. 36

²⁷⁹ Ibid.

opens up an interesting space for linking the institution and agency based approaches in a complementary manner.²⁸⁰

On the one hand, the deterministic trend of institution-based explanations was rooted in the presumption that everything could be explained by reference to institutional factors. For different levels of abstraction, such institutionalist determinism may be limited to the more remote level. This implies that from the macro-level of governing institutions we might only be able to define the range of options for sectoral adjustment, and claim that sectoral developments are constrained by the broader institutional context.²⁸¹ However, while restricting the range of options for sectoral change, the institution-based perspective provides no sufficient basis for explaining whether sectoral change takes place at all and which concrete option is selected.²⁸² To answer this question, we have to narrow down the level of abstraction, and rely on the agency-based perspective of rational-choice institutionalism.

Hence, both approaches are characterized by a distinctive, though complementary, explanatory scope. On the basis of the previous discussion, it is possible to narrow down the set of cases for which institution-based approaches have to be complemented by an agency-based perspective in order to account for institutional change. Assuming that institutional adaptation is path dependent or follows the 'logic of appropriateness', the institution based perspective underlying historical institutionalism suggests that sectoral institutional change can only be expected when adjustment requirements remain within the scope of macro-institutional rules and standard operating procedures.²⁸³ In this way, the institution-based perspective allows for the avoidance of those sectoral options which exceed the constraints defined by the macro-institutional context.

We only need to narrow down the level of abstraction to agency-based approaches in those cases where the adaptational requirements emerging from European policies remain within the range of options defined by the macro-institutional context. Here, the institution-based perspective provides us with few insights about the actual occurrence and mode of sectoral

²⁸⁰ Cristoph Knill & Andrea Lenschow, "Coercion, Competition and Communication: Different Approaches of European Governance and Their Impact on National Institutions" *Journal of Common Market Studies* Vol. 43, No. 3, 2005, p. 584

²⁸¹ Ibid, 587

²⁸² Ibid.

²⁸³ James G. March & Johan P. Olsen, 'The Logic of Appropriateness' ARENA Working Paper, No. 4/9, 2004.

changes.²⁸⁴ To answer these questions, we have to rely on the less abstract, agency-based perspective. It is necessary to consider whether the European policies have sufficiently altered domestic opportunity structures so that national actors are able to successfully challenge the existing institutional arrangements. To what extent are domestic actors able to exploit the new opportunities emerging from European policies so as to successfully challenge the existing institutional equilibrium.

1.2.6. Concept Of Institution

Before defining the concept of institutional change, we should define what we mean by the term *institution*. The concept of *institution* has become quite popular with the revival of institutionalist arguments in various fields of social science. Probably because of this popularity, different scholars attribute different meanings to the same concept.²⁸⁵ This lack of consensus on what constitutes an institution means that the concept of institution remains ill-defined and vague. Some institutional theories provide such a broad definition of institution that the term has become “a proxy for anything [conventional] that constrains human action”.²⁸⁶ Lowndes also observes that “[The concept of institution] is a slippery term because it is used to refer to social phenomena at many different levels - informal codes of behavior, written contracts, and even complex organizations”.²⁸⁷ Similarly, Moe states that “...there is still no agreement on what an institution is. Some scholars see institutions as rules of the game; others see them as formal organizations, others as patterned behavior, still others as “myths” and ideational structures.”²⁸⁸ One can see different conceptualizations even within the same theoretical orientation. For instance, with respect to historical institutionalism, Peters, Pierre and King observe that:

As used by historical institutionalist scholars the term institution can refer alternatively to deliberately created institutions charged with the implementation of public policy, and the formal rules structuring relations between the state and interest groups. Institution is also used to describe formal administrative institutions within the state such as civil service departments or legislatures, as well as informal rules, agreements, and customs within the state and

²⁸⁴ Cristoph Knill & Andrea Lenschow, op.cit. 2005, p.589

²⁸⁵ Martha Finnemore, op. Cit. 1996; James G. March and Johan P. Olsen. Op. cit. 1998; B. Guy Peters, Institutional theory in political science: the new institutionalism. London ; New York : Pinter, 1999; John L. Campbell, op. Cit. 2004

²⁸⁶ Hudson Meadwell, “Institutions and Political Rationality” In Andre Lecours (Ed.) *New Institutionalism: Theory and Analysis*. Toronto: University of Toronto, 2005, p. 82.

²⁸⁷ Vivien Lowndes, op. cit. p. 182, 1996.

²⁸⁸ Terry M. Moe, “Power and Political Institutions”, *Perspectives on Politics* 3(2), 2005, p. 226

between the state and society. This appears too wide a range of phenomena to be captured by a single term.²⁸⁹

This conceptual ambiguity creates serious problems for institutionalist literature. However, finding a solution to these conceptual problems is beyond the purpose of this study but it is a necessity to provide an operational definition of institution. In this study an institution refers to ‘formal or informal social structures of norms, rules and practices that regulate (constrain or enable) the course of actions among actors in a certain scope and domain.’²⁹⁰

These formal and informal social structures should be treated as multidimensional.²⁹¹ Table below provides the analytical components of a formal political institution. Accordingly, institutions are composed of three central elements. Normative structure (the core) forms the first component and includes norms, principles, values, and collective identity. Any conceptualization of the term institution excluding normative elements (principles, values, norms), such as a definition of institution as “patterned practices or practices that are routinized, typical and recurrent”, would be quite problematic because then any regularity or pattern would be an institution.²⁹² Goals, which form the second component, are the collective goals and the mission of the institution. In order to realize those goals, which derive from the normative basis of an institution, institutional actors may create certain instruments such as rules, procedures, policies, organizational structure, and resources. These elements form the third component of an institution.

Table 1.3: Components of Formal Institutions

Components	Content
1) <i>Normative Core</i>	Norms, values, principles and collective identity
2) <i>Goals</i>	Collective goals, missions, purposes
3) <i>Instruments</i>	Rules, procedures, policies, resources, technologies, administrative structures etc.

²⁸⁹ B. Guy Peters, Jon Pierre, and Desmond S. King. Op. Cit. 2005, p. 1286.

²⁹⁰ Getchen Helmke and Steven Levitsky. Informal Institutions and Comparative Politics: A Research Agenda. *Perspectives on Politics* 2(4), 2004, p. 727; John M. Carey, Parchment, Equilibria, and Institutions. *Comparative Political Studies* 33(6): 735-761, 2000.

²⁹¹ John L. Campbell, op. Cit. 2004, p. 36

²⁹² Ibid.

1.2.7. Institutional Change

The literature review in previous section reveals that institutional change is another ill-defined concept in the institutionalist literature. Existing definitions of institutional change remains quite ambiguous or limited.²⁹³ For instance, for rational choice institutionalism, any change in the rules of the game is an institutional change.²⁹⁴ However, this conceptualization is quite ambiguous in the sense that what is meant by ‘rules’ is not clear. Because of this ambiguity, it would be quite difficult to consider any change in the procedural rules of an organization - such as meeting times or places- as institutional change. What is more, since rational choice institutionalism has a very narrow understanding of an institution (neglecting normative elements), this is not a workable definition for a study that emphasizes normative elements within an institutional structure.

Most of the new institutionalist efforts to conceptualize institutional change focus on the degree of shift from the institutional status quo. Harty states that:

...there is a difference of opinion in the literature over what constitutes institutional change. Actually, the debate is over degrees of change: is reform change or something else? Does a series of reforms-adaptation-amount to change or is it evidence of institutional continuity and stability...until they [these questions] are debated and resolved, a theory of institutional change will not be possible.²⁹⁵

Such an approach to institutional change, however, creates further conceptual problems rather than solving any. Peters, Pierre and King raise a significant point when they ask, “How large is a change before it ceases to be incremental?” They continue by stating that, “This is a measurement problem, but it is also a fundamental conceptual problem. That is, neither the historical institutionalists nor the incrementalists are very clear about what sort of a change should be reckoned to be significant enough to say that there has been a deviation from the path [having a changing institution]”.²⁹⁶

This study acknowledges the fact that institutional change is a matter of degree, but suggests that the criterion for deciding whether any shift qualifies as an institutional change should not be the degree of change (i.e. incremental or dramatic), but it should be the content of the change. In other words, one should look at the scope of change in the sense that if the shift

²⁹³ Ibid, p. 5.

²⁹⁴ Kenneth Shepsle, op. cit. 2001, p. 141

²⁹⁵ Siobhan Harty, op. Cit. 2005, p. 62.

²⁹⁶ B. Guy Peters, Jon Pierre, and Desmond S. King. Op. Cit. 2005, p. 1287.

takes place within the normative core, which forms the defining elements of an institutional setting, then one can talk about a changing institution. As Thelen suggests, “if institutions rest on and reflect a particular foundation...then they should change as a result of shifts of these underlying conditions.”²⁹⁷ This is a much more useful approach to institutional change. Focusing on the degree of change as the criterion for defining a change as institutional change is problematic because it is difficult to give an objective answer to the question of the degree or threshold that should be passed in order to define a change as institutional change. A better strategy, therefore, would be to focus on whether there is any change in the defining features or elements of institutions. This method, of course, does not eliminate the degree problem, but it offers a better way for deciding whether an existing institution is changing.

As indicated before, emphasis on institutional stability or continuity in institutionalist literature should not imply that institutions are immutable structures. Change, either dramatic or gradual, is abundant in the institutional world. However, change might take place within any scope of an existing institutional setting (normative core, goals and instruments), but not all types of changes would qualify as an institutional change. Table presents three types of changes depending on the scope of change. Change in the normative basis of an institution is defined as ‘fundamental (primary) change’. This type of change involves a gradual or dramatic shift in the norms, principles, values and collective identity of an institution. It refers to the institutionalization of totally new norms or the transformation of existing institutional norms into a new form.

²⁹⁷ Cited in Jeffrey Stacey and Berthold Rittberger. *Op. cit.* 2003, p. 864.

Table 1.4: Types of Change in Institutions

	Scope of Change	Type of Change	Features
Institutional Change (Change to a new path)	Normative Core	Fundamental (Primary)	Gradual or total shift of institutional norms, values, principles and identity.
Institutional Adjustment (Change within a path)	Goals	Strategic (Secondary)	Adoption of new goals, purposes; adaptation of institutional goals to new situations.
	Instruments	Tactical (Tertiary)	Employment of new rules, procedures, policies, resources, administrative structure.

Inspired by: Peters, Guy. “Institutional theory in political science: the new institutionalism.” London ; New York: Pinter, 1999.

Adoption of new goals, missions or purposes or adaptation of institutional goals to new situations and times becomes ‘strategic (secondary) change’. ‘Tactical (tertiary) change’ refers to changes in the rules, procedures, and administrative or organizational structures. In this case, only the instruments or means of institutions change. An institution might adopt new policy instruments or new decision-making procedures such as a shift from consensus to majority voting.²⁹⁸

Among these three types of changes, only the first one classifies as an institutional change, because in this case, the defining elements of an institution (normative core) take different forms (i.e. change to a new path). As indicated above, institutions rest on a normative basis. Different institutions might have similar instruments and goals but what makes them distinctive are their norms, principles, values and collective identity. In other words, the normative basis (the first component) becomes the defining element in an institutional setting. Any change in this defining element would be considered as an institutional change. Changing goals and instruments; such as adopting new objectives, redesigning organizational chart and developing new resources, strategies, policies that do not alter the normative core, would not be defined as institutional change.

²⁹⁸ Ernst B. Haas, op. cit. 2004

It is quite likely that primary change (shifts in the normative core) would lead to further shifts in the scope of goals and instruments (new collective mission, new administrative rules, procedures, strategies, policies, resources, and organizational structure). The components of an institution (norms, goals, and instruments) are distinct but not separable. In other words, the secondary and tertiary change might be a result of the primary change.

This study focuses on primary change (shift in normative basis). It is much more engaging to analyze this type of change because primary change involves changes in the core elements of an institution: norms, values, principles and collective identity. However, shifts in the normative elements of an institution might take quite different forms. These may include “change as novelty or replacement, change as addition or subtraction, increased complexity, transformation, reversion and obsolescence”.²⁹⁹ According to Holsti, ‘change as novelty or replacement’ refers to the introduction of new forms replacing old ones. ‘Change as addition or subtraction’ refers to the quantitative growth or decline of certain elements. ‘Change as increased/decreased complexity’ refers to, for instance, the expansion of the number of activities and agents; the elaboration of tasks and rules; or the expansion of the scope of activity. ‘Change as transformation’ refers to a situation in which, the old (previous principles, norms etc) is not totally replaced, but it coexists with the new ones. In this study, this type of change is labeled as ‘gradual change’. These four types of changes, for Holsti, are progressive changes.³⁰⁰ However change might also take place as reversion, which means movement toward more primitive forms. Finally, change as obsolescence refers to situations in which institutional practices, norms and rules become obsolete. They simply disappear rather than being replaced by something new.

This study analyzes one form of progressive, qualitative change: gradual change. The focus of this work is the introduction of new principles and norms to an existing institutional setting. Old elements may continue to exist, at least for a certain period of time, but the inclusion of new normative elements into the existing institutional structure would definitely result in a changing institution. Thus, this work is not about normative change at societal level. Rather it analyzes the transformation of normative structure at a micro level (i.e. institutional settings)

²⁹⁹ Kalevi J. Holsti, *Taming the Sovereigns: Institutional Change in International Politics*. Cambridge: Cambridge University Press, 2004, pp. 12 – 13.

³⁰⁰ *Ibid.*

and asks when and how existing institutions embody new norms, principles and values and change.

1.2.8. Analyzing The Change

With respect to analysis, grasping primary change creates some difficulties since it refers to changes in institutional norms. For instance, how does one know whether or not there was a shift in the normative basis of an institution? Answering this question is a challenging task since changes in institutional norms are difficult to observe directly. As Finnemore and Sikkink suggest “we can only have indirect evidence of norms just as we can only have indirect evidence of most other motivations for political action (interests or threats, for example)”.³⁰¹ This study also relies on several indirect indicators of changes in institutional norms. The following methods are used to gain a sense of the shifts in the normative basis of an institutional setting: looking at the changes in the behaviors of institutional actors, the changes in legal documents, and checking for any secondary or tertiary change in the institutional setting. In terms of the first method, since norms, which are collective understandings defining appropriate behavior and by this way, set the standards of legitimacy, have some behavioral impacts, one way of grasping changes in institutional norms would be looking at the changes in the behaviors of institutional actors.

Secondly, this study focuses on formal political institutions. This type of institution is usually defined in legal texts. Thus, looking at constitutional or legislative changes, that define the institutional normative basis, would be another way of grasping primary change. Finally, almost every shift in the normative basis of institutions would bring further shifts in the second and third components, which are relatively more observable. In other words changes in institutional norms would lead to changes in the institutional goals and instruments. A new policy, new decision making rules, new members or new organizational structures might be a result of shifts in the normative basis of an institution. That having been said, one should be careful in doing this because the third approach might be misleading in the sense that institutions might change their instruments while sticking to the same institutional norms and goals.

³⁰¹ Martha Finnemore and Kathryn Sikkink. *Op. Cit.* 1998, p. 892.

This study considers institutions as formal or informal social structures of norms, rules and practices that regulate (constrain or enable) the course of actions among a group of actors. An institution, which might be a mere structure (e.g. policy area) or a social, political entity (political parties, legislatures etc.), usually consists of three components: ‘normative core, goals and instruments’. Institutional change refers to any shift in the first component, that is, a gradual or total shift in institutional norms, values, principles and identity. In other words, if there is any shift in the first component, then one can talk about a changing institution. Changes in the second and third components should be considered institutional adjustments. Thus, ‘path breaking change’, here, refers to shifts in the first component. Changes in other components would be ‘path following changes’.

However, this does not mean that institutional change and institutional adjustment are isolated from each other. They are distinct but related developments in the sense that institutional change is quite likely to lead to certain institutional adjustments, although the reverse is not likely.

1.3. Conclusions

Europeanization is differentiated from most other European integration scholarship by attempting to understand and explain if, how, when, and to what extent European integration and governance leads to change or continuity in domestic level structures and institutions. In this dissertation, Europeanization is focused upon ‘European integration as an explanatory factor in domestic political continuity or change’. Hence the Europeanization approach has been dominantly a top-down approach that seeks to explain the impact of supranational patterns and structures of policymaking, governance, and action upon domestic structures and patterns.

Europeanization is a rather broad range of political, economic, and social phenomena resulting from the impact of European-level governance upon state-level governance. The range can include administrative and bureaucratic harmonization with the *acquis communautaire*, to significant limitations on executive, bureaucratic, parliamentary, or other institutional policy choice and action over issue areas, to the more significant structural change of economic, social, and political institutions and processes. Europeanization, in this dissertation encompasses them all: policy, process, and polities. The common links that

connect this broad range of political phenomena is that each is impacted, to some extent, by European-level patterns and structures of integration and governance.

The literature on Europeanization attempts to understand and explain when and why domestic change or continuity exists in the face of forces of European integration. The findings of literature review also have created a framework to assess when and why change is more likely than continuity. Change is more likely in two instances, when the locus of a particular policy area is delegated to the European-level and when exit, veto, and informational incentives are present for actors or institutions to pursue European or multi-level strategies. The first instance is dominantly institutional in approach while the second is nested primarily in rational choice literature, namely, rational institutionalism. There is also another framework constructed by several researchers which is far more structured and concise. This framework proposes a three-step flow of casual relationships that lead to domestic structural change or continuity. While dominantly historical institutional in approach, there are also strong elements of rational choice, social learning and constructivism. Moreover, they provide a framework to analyze the impact and implications of European integration upon domestic policies such as environmental policy in Turkey. As it was discussed in the previous chapters, the frameworks of Hix and Goetz and Risse, Cowles, and Caporaso were compatible and useful in such a role. Hence this research used these models as the basis of investigation and analysis of the impact of European integration upon environmental policy in Turkey.

Two conditions were identified in this dissertation for expecting domestic changes in response to Europeanization: First Europeanization must be ‘inconvenient’, which implied a ‘misfit’ or ‘incompatibility’ between European level processes, policies and institutions, on the one hand, and domestic level processes, policies and institutions on the other. This degree of misfit constitutes an adaptational pressure which led to a necessary condition for expecting domestic change. The second condition was a range of facilitating factors responding to the adaptational pressures.

According to this dissertation, the 'goodness of fit' between the European and the Turkish level determines the degree of pressure for adaptation generated by Europeanization on Turkey: The lower the compatibility between European and domestic processes, policies, and

institutions, the higher the adaptational pressure.³⁰² If European norms, rules, and the collective understandings attached to them were largely compatible with those at Turkey, they did not give rise to problems of compliance or effective implementation. In brief, misfit and resulting adaptational pressures constituted the starting point for any causal mechanism discussed in this dissertation.

Whether misfits produce a substantial effect at the domestic level depends on the presence of various factors facilitating adaptation and serving as catalysts for domestic change. Only if and when these intervening factors are present can we expect a transformation of policies, politics, or polities in the member states. These facilitating factors were named as Multiple Veto Points, Existing Formal Institutions, Change Agents or Norm Entrepreneur and Political Culture and other Informal Institutions in this dissertation.

Consequently, and very briefly, the concept of Europeanization in this dissertation was used as ‘the effect of European Integration and policies on national policies’, not as policy-making or institution-building at supranational level. In other words, Europeanization was an already-established independent variable which had a direct impact on national policies. As our case study had been based on environmental policy in Turkey, the effect of the Europeanization Process was much limited especially compared to members of the EU.

New institutionalism was also reviewed and used as an explanatory tool in this dissertation. It is difficult to treat new institutionalism as a coherent and unified body of thought, however, three main branches were identified in this dissertation: historical, sociological and rational choice variants.³⁰³ Rather than providing a detailed history of each theoretical orientation and a complete comparison of similarities and differences between them, the purpose of this dissertation was first to make a categorization of institutionalist approaches as Institution based and agency based ones. Secondly, to show the defining principles of three main institutionalisms and assessed how these different institutionalist orientations define institutions and deal with institutional change. Thirdly, this dissertation discussed the difficulties and problems of these theoretical orientations in terms of theorizing institutional change and how to address those problems.

³⁰² Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, op. cit. 2001, p. 3.

³⁰³ Peter A. Hall and Rosemary C. R. Taylor. Op. Cit. 1996

In separating agency based and institution based approaches the dissertation followed the argument of: to what extent institutions can be conceived of as independent or only intervening variables in administrative change. For the purpose of this dissertation the consideration of the explanatory power of institution-based and agency-based approaches yielded a dilemma, as both concepts were characterized by analytical strengths as well as weaknesses. Both agency-based and institution-based approaches were therefore characterized by distinctive deficits, indicating the need to link both approaches in a way that partly compensates for their respective weaknesses.

While the conservative trend of institution-based approaches provided us with clear expectations on the scope of institutional change, the inherent deterministic trend was at the same time a major weakness. Namely, pre-determination which was allowed in this approach can be considered as the handicap of it. Agency-based approaches, by contrast, avoided the problem of determinism, but suffered from their openness, which made pre-determined hypothesizing very difficult. It was argued that the acknowledgement of different levels of abstraction, and hence the distinctive explanatory value associated with institutions, opened up an interesting space for linking the institution and agency based approaches in a complementary manner.

In this dissertation the level of abstraction to agency-based approaches only narrowed down in those cases where the adaptational requirements emerging from European policies remained within the range of options defined by the macro-institutional context. Here, the institution-based perspective provided us with few insights about the actual occurrence and mode of sectoral changes. To answer these questions, it was relied on the less abstract, agency-based perspective.

As stated above three different branches of new institutionalism was evaluated and used in this dissertation. According to historical institutionalism (HI), institutions were considered to be formal structures and informal rules or procedures, routines, norms, and conventions that structure conduct. Thus, for HI, the term institution referred to both social and political entities such as formal organizations and structures such as informal rules. Institutions not only constrained individual behavior such as shaping actors' strategies but also they had constitutive impact in the sense that they also define actors' interests and goals.

The HI, in this dissertation, was usually associated with path dependency approach. This approach referred in this dissertation as what happened at an earlier point in time will affect the possible outcomes of a sequence of events occurring at a later point in time. The important factor in this definition was that 'history matters' and it should be taken seriously in institutional analyses.

In this dissertation the path dependency approach generally used synonymous to incremental and evolutionary change. Substantial, revolutionary, path-breaking changes happen at critical moments, which were choice points. At these branching points, which were usually caused by some externally driven developments, disturbances or shocks, a new institutional path emerges among many choices. It was argued in this dissertation that once an option is chosen, it becomes difficult to return to initial conditions. In other words, the period following these critical moments was characterized by inertia.

Based on this approach, HI tended to view institutional change as a sudden collapse of institutional equilibria, stability or patterns by external shocks. These paths are usually punctuated by external crises at critical moments such as wars, financial crises, natural disasters, etc. At these branching points a new path emerges. Otherwise, institutional change is expected to be incremental and path dependent.

Sociological institutionalism (SI), also labeled as normative institutionalism, helped in this dissertation to provide a broader definition of institutions. According to SI an institution is a relatively stable collection of practices and rules defining appropriate behavior for specific groups of actors in specific situations. Thus, the notion of institution included not only formal rules, procedures, or norms but also informal norms, beliefs, values, symbols, cognitive scripts, and systems of meanings.

In terms of institutional change, like HI, SI was also more concerned with explaining the persistence of institutions rather than changes in institutional structure. Thus, in general, SI had a static notion of institutions and it was much more successful in theorizing norm compliance than norm selection or normative change.

For the rational choice variant of institutionalism, institutions were simply the rules of the game. These rules, for RCI, were usually associated with material. Such a conceptualization,

however, remained limited in the sense that RCI paid more attention to formalized rules in material structures while ignoring informal rules such as norms, values. Thus, compared to HI and SI, rational-choice definition of institution puts less emphasis on cultural and normative elements.

According to RCI, institutional change was an intentional act. In other words, for RCI, institutions are 'objects of choice'. Then institutional change became strategic action of individuals. Accordingly, when institutional setting produces dysfunctional or sub-optimal outcomes, actors search for alternative arrangements to maximize their utilities. For example, the Turkish governments would continue to be under pressure from developed countries in general, and specifically from the EU if they insist on poor environmental standards in industry. Additionally the constituents also raised their voices for more attention to the environment. Thus, the governments have chosen a more environmentalist view and boosted the environmental policy for satisfying the external pressures and needs of constituents.

An eclectic approach in analyzing institutional change was adopted in this dissertation in the sense that it borrowed different tools from different institutionalist orientations. Such an eclectic approach was useful, considering the fact that neither of existing institutional orientations discussed in this dissertation alone was capable enough to deal with institutional change. Therefore, this dissertation borrowed from sociological, historical and rational-choice institutionalisms. The analysis of changes in structure required paying more attention to agency. In that sense, the rational choice variant of institutionalism, which had stronger account of agency, became useful for analyzing change. Sociological institutionalism and historical institutionalism, on the other hand, provided useful tools (e.g. logic of appropriateness) for understanding how institutional structure shaped actors' interests and behaviors during structural changes. This was considered important because strategic interactions did not take place in a vacuum. Actors interact within a normative context and this normative, social context structure both these interactions and their outcomes. For instance, the preferences and behaviors of institutional actors would be different depending on whether their perceptions are shaped by the idea of sustainable development or they are insensitive to the environment. As a result, borrowing from these three approaches became a necessity in analyzing institutional change.

The focus of this dissertation was the introduction of new principles and norms to an existing institutional setting. According to this dissertation old elements might continue to exist, at least for a certain period of time, but the inclusion of new normative elements into the existing institutional structure was definitely result in changing the institution. Thus, this dissertation was not about normative change at societal level. Rather it analyzed the transformation of normative structure at a micro level (i.e. institutional settings) and asked when and how existing institutions embodied new norms, principles and values and change.

With respect to analysis, grasping primary change created some difficulties since it referred to changes in institutional norms. How does one know whether or not there was a shift in the normative basis of an institution? For instance, how can one analyze if the perception in Turkish environmental policy shifted from conventional views to the idea of sustainable development? Answering this question was a challenging task since changes in institutional norms are difficult to observe directly. This dissertation relied on several indirect indicators of changes in institutional norms. The following methods were used to gain a sense of the shifts in the normative basis of the institutional setting: looking at the changes in the behaviors of institutional actors, the changes in legal documents, and checking for any secondary or tertiary change in the institutional setting. In terms of the first method, since norms, which are collective understandings defining appropriate behavior and by this way, set the standards of legitimacy, have some behavioral impacts, one way of grasping changes in institutional norms was looking at the changes in the behaviors of institutional actors. For instance, analyzing the discourse of different governments through the timeline was one of the methods chosen in this dissertation in order understand behaviors institutional actors.

Secondly, this study focused on formal political institutions. This type of institution was usually defined in legal texts. Thus, looking at constitutional or legislative changes, those define the institutional normative basis; have been another way of grasping primary change. Finally, almost every shift in the normative basis of institutions brought further shifts in the second and third components, which were relatively more observable. In other words changes in institutional norms led to changes in the institutional goals and instruments. A new policy, new decision making rules, new members or new organizational structures might be a result of shifts in the normative basis of an institution. That having been said, one should be careful in doing this because the third approach might be misleading in the sense that institutions might change their instruments while sticking to the same institutional norms and goals.

This dissertation considered institutions as formal or informal social structures of norms, rules and practices that regulate (constrain or enable) the course of actions among a group of actors. An institution, which might be a mere structure (e.g. policy area) or a social, political entity (political parties, legislatures etc.), usually consists of three components: normative core, goals and instruments. Environmental Policy in Turkey considered as the institution to be analyzed in this dissertation, as it contains all there components mentioned above: it has a normative core, as it is a policy area it has goals, such as protecting the environment or providing clean development, and it has instruments to carry out those goals within the framework of its normative perception. Institutional change, in this dissertation, referred to any shift in the first component that was a gradual or total shift in institutional norms, values, principles and identity. In other words, if there was any shift in the first component, then it was considered as a change in the institution. Changes in the second and third components considered institutional adjustments. Thus, path breaking change, in this dissertation, referred to shifts in the first component. Changes in other components were path following changes.

However, this does not mean that institutional change and institutional adjustment were isolated from each other. In this dissertation, they were distinct but related developments in the sense that institutional change was quite likely to lead to certain institutional adjustments, although the reverse was not likely.

2. SOURCE OF THE CHANGE AND THE SUBJECT TO CHANGE: *ENVIRONMENTAL POLICY OF THE EU AND ENVIRONMENTAL POLICY IN TURKEY*

In this chapter, the purpose is to grasp what is subject to institutional change and what is the source of pressure that forces the subject to be changed. In other words, the independent and dependent variables would be analyzed. The chapter consists of two basic chapters: Environmental policy of the EU, independent variable, is firstly elaborated; then it is followed by the demonstration of the dependent variable, environmental policy in Turkey.

The first section begins with a glancing to the development of an environmental policy in the EU. It is followed by an analysis on the instruments of change and adaptation in the EU environmental policy. Thirdly, the environmental legislation, especially environment in primary legislation, is assessed then other regulative instruments are evaluated. Following, the Environment Action Plans, as the policy tools of environmental policy in the EU, are examined. Fifthly, the European Environment Agency, as the change and adaptation agent, is observed. It is followed by the demonstration of financial instruments and decision making structures for Environmental Policy. In this section the EU is also analyzed as an emerging international change agent in the field of environment. The section is concluded with an assessment of EU Environmental Policy as a source of adaptational pressure.

The second section, as stated above, is about the environmental policy in Turkey. It starts with the historical record of Turkey in the field of environment, which covers a timeline from the late Ottoman era to contemporary Turkey. The regulative field is analyzed through assessments of environment in Turkish Constitutions, Turkish environment code and other regulative measures about environment. It is followed by the examination of the international impacts on environmental policy in Turkey. The domestic entities in Turkey about environment, which are both subject institutions and catalysts to the change and adaptation, are also reviewed. Administrative tools used in environmental policy in Turkey, which seems to be changed dramatically, are elaborated in this section; such as plans, environmental impact assessments, environmental information, environmental education, research and development and financing mechanisms. The approaches of Turkish governments to the Environment since 1980s are also evaluated, in order to demonstrate the evolution of political view on

environment. The changes of state policies between 1963 and 1996 in Turkey are exhibited through an examination of five year development plans.

The chapter is concluded by asserting the areas which seems subject to change or adaptation in Turkey. In the first case, the regulative and financial aspects of environmental policies in Turkey are presented; and secondly, informative, normative and participative issues about environment are discussed.

2.1. The Source of the Change: Environmental Policy of the EU

The idea of environmental policy as a policy field on its own is a relatively new one. Indeed, since the beginning of civilization decisions made by governments have reaped positive and negative environmental consequences, but not until the second half of the 20th century was the political will created to make policies for this express purpose. Now it is arguably one of the most important policy fields for modern societies.³⁰⁴ Since the societies of Europe are some of the most contemporary in the world, it follows that environmental policy should be an important field in the European Union. It is also interesting to note that the time period of the rise of environmental policy as an important modern policy field roughly corresponds to the time period of the rise of the European Union as an influential actor. These factors indicate a broad relationship between European integration and environmental policy, and here I will provide ideas about connections between the two phenomena through exploration of the field's development history in Europe and the principles that have guided and continue to influence the institutionalization of Europe's environmental endeavors. One of the guiding principles of modern international environmental policy has been the idea of sustainable development, an idea born from the World Commission on Environment and Development in a report titled *Our Common Future* published in 1987. The report is generally credited with putting environmental policy on the international agenda and establishing the need for an integrated approach to environmental problems. This approach has become a guiding principle for the European Union even despite the fact that it was not mentioned in the original Rome treaty, and as such provides an example of EU policy that has grown outside of the original supranational framework. The modern EU treaty now requires that the concept

304 Orhan, Gökhan European Environmental Policy at the Intersection of Institutions and Ideas. In European Discourses on Environmental Policy. Marcel Wissenburg, Gökhan Orhan, and Ute Collier, eds. Pp. 35-58. Ashgate Publishing Ltd. UK. (1999), P. 35

inform all EU policies. This notion, according to the European Portal on Sustainable Development, “contributes in an integrated way to meeting economic, environmental and social objectives”, and thus is a key concept in the process of integrating policies in Europe.³⁰⁵ In accordance with this commitment to sustainable development, the EU has created a Sustainable Development Strategy (SDS) which aims to set out a coherent course for continuous improvement in quality of life for current and future generations, and has been renewed as recently as 2006.³⁰⁶ Environmental Policy is now among the most important issues in Europe, stemming from a series of forces such as general degradation of the environment, highly publicized environmental disasters, and the political forces of environmental movements in the 1970s and 80s.³⁰⁷ It is interesting that though war was fresh on the minds of the European Union’s founders, its defense capacity remains a relatively underdeveloped sector in terms of competence, and while environment was not an explicit concern at the dawn of what would eventually become the European Union, it now enjoys a level of supranational competence that is comparatively high. Yet the environment did not become an explicit concern for Europe until 1972, and an environmental action program was not put in place until November of 1973.³⁰⁸

2.1.1. Development of Environmental Policy in the EU

When the founding Member States drafted the Treaty of Rome in the fifties, they did not think it necessary to develop an environmental policy at Community level. Nonetheless, intensive economic growth, the fast pace of industrialization and increasing energy consumption resulted in rising levels of environmental pollution. As damage to the environment was growing steadily worse all over Europe, at the beginning of the seventies the Member States came to recognize environmental protection as one of the areas that called for concerted Community efforts.

In October 1972, at the Paris Summit, the Heads of State or Government decided that Community environmental policy was essential and initiated the process of designing the

305 European Commission Environment Directorate General (ECEDG) (2006). EU Environment Related Indicators 2006: Measuring Environmental Progress in Europe. Printed in Belgium.

306 European Commission (EC) (2007). Sustainable Development: Together for Tomorrow. The Renewed European Sustainable Development Strategy 2006.

307 Dinan, Desmond Ever Closer Union: An Introduction to European Integration, Third Edition. Lynne Rienner Publishers Inc. Boulder, CO. 2005.

308 Gökhan Orhan, op.cit. 1999, p. 38

necessary legislative framework and common action programs in the field of environmental protection. However, the effect and scope of the first two action programs - introduced in 1973 and in 1977 - were limited. The objectives and basic principles of the Community environmental policy started to gain their true shape under the Third Action Program set up in 1983. The Third Action Program shifted the emphasis from treatment to prevention, which has been the guiding principle of the sector ever since.

The breakthrough came with the Single European Act, which amended the Treaty of Rome with new articles on environmental protection. The new provisions institutionalized Community environmental policy and its objectives under the Treaty (Part Three Title XIX of the EC Treaty). In accordance with the objective of establishing a single market, the emphasis of the policy has shifted to the introduction of common provisions (for example Community standards and quantifiable limits on air and water pollution).

The Treaty of Maastricht expanded the scope of environmental policy and supplemented it with new objectives. The increasing importance of environmental policy is shown by the fact that the Treaty of Maastricht incorporated into the EU Treaty the objective of environmental protection, linking the principle of sustainable development to the need to respect the environment. In compliance with the Treaty of Maastricht and the Treaty of Amsterdam, one of the fundamental principles now is to take account of environmental protection in all sectoral policies, namely to integrate environmental considerations into all other Community policies.³⁰⁹

The main objectives of the Community environmental policy, as set out in the EC Treaty (Article 174), are:

- Preserving, protecting and improving the quality of the environment;
- protecting human health;
- encouraging prudent and rational utilization of natural resources; and
- promoting measures at international level to deal with regional or worldwide environmental problems.³¹⁰

As an established EU practice, in addition to the pursuit of the above objectives, Community environmental policy also observes the following basic principles:

³⁰⁹ Article 6 of the EC Treaty.

³¹⁰ Article 174 of the EC Treaty.

- The principle of prevention (which has priority over remediation);
- The principle of rectifying environmental hazards at source;
- The 'polluter pays' principle;
- The integration principle;
- The principle of avoidance.³¹¹

Thus, environmental policy has become a Community policy institutionalized by the Treaties. In the area of environmental protection, the Community's main responsibility is to provide a legislative framework for the activities of the Member States, to ensure the conditions that facilitate the cooperation of the Member States and the improvement of the quality of the environment at European and international levels. To this end, the EU adopts Community legislation and action programs and provides the necessary financial instruments for the implementation of Community objectives.

The Commission plays a key role in environmental policy-making. On the one hand, it makes proposals for Community legislation on the environment and for Community action programs while, on the other hand, it monitors their implementation by the Member States. The decisions on the protection of the environment are jointly adopted by the Council and the Parliament under the co-decision procedure, apart from a few exceptions³¹² when the Council has the exclusive right of decision and the Parliament is only consulted. It must be noted that the environment is an area of Community law where the Treaty allows the Member States to adopt and apply rules stricter than those of the Community. Nonetheless, these measures must always be compatible with the Treaty.

2.1.2. Instruments of Adaptation and Change in Environmental Policy of the EU

In this part basically the legislative aspects of the European Environmental policy would be dealt. The primary and secondary sources of EU law about environmental policy and environmental issues would be asserted and their role in policy shaping would be discussed.

311 European Commission (EC) (2007). Sustainable Development: Together for Tomorrow. The Renewed European Sustainable Development Strategy 2006.

312 The exceptions are following: issues primarily of fiscal nature (environmental levies); measures related to spatial planning and water supply management; land use matters (except for waste management); the choice of Member States between various energy sources and the general structure of its energy supply.

2.1.2.1. Environmental Legislation

Environmental legislation in the EU is based on secondary legal sources, primarily directives. Since 1972, the Community has adopted several hundred pieces of legislation (mainly directives), chiefly concerned with limiting pollution by introducing minimum levels of protection and product specifications. Environmental legislation primarily covers air pollution control, water pollution control, waste management, noise reduction, nuclear safety, protection of flora and fauna and provisions on chemicals. Traditionally, the three key areas are waste management, water pollution and air pollution.

Community policy on waste management involves three strategies: eliminating and reducing waste at source, encouraging the recycling and re-use of waste and reducing pollution caused by waste incineration. The Community's approach has been to assign more responsibility to the producer. For instance, in accordance with a Directive adopted in 1997, end-of-life vehicles are to be collected and recycled at the manufacturer's expense. In the field of water pollution, Community legislation focuses on two objectives: the introduction of quality requirements and minimum quality levels of drinking water and the monitoring and reduction of emission limits. Wastewater management is regulated by strict Community rules.

Community policy on air pollution primarily involves the introduction of minimum levels of protection and the reduction of hazardous emissions. Recently, Community legislation has been particularly concerned with transport, where three objectives have been set up: the reduction of polluting emissions (e.g. through the use and development of catalytic converters), the reduction of fuel consumption (in collaboration with car manufacturers) and the promotion of clean vehicles through tax incentives. The Community underlines that combating air pollution is a world priority, as global warming and the growing depletion of ozone in the atmosphere are issues that require global cooperation. To this end, the EU is making serious efforts to be party to the drafting and implementation of international conventions and legislation. In this respect, the Union plays a leading role amongst the world's most powerful economic regions - for instance in the enforcement and implementation of the Kyoto Protocol - and is firmly committed to keeping the issue of environmental protection on the agenda of international talks. For instance, the EU tried on a number of occasions to persuade the United States to implement the Kyoto Protocol after the US announced, at the start of 2001, that it did not wish to ratify the Protocol. The issue has been a

cause of severe friction in EU-USA relations. The Kyoto Protocol entered into force in February 2005, thanks to the Union's continuous efforts; the EU managed to convince Russia to ratify the Protocol, thereby achieving the required limit for the Kyoto Protocol to enter into force.³¹³ In the Kyoto Protocol, the EU undertook to reduce greenhouse gas emissions from the 1990 level by 8% during 2008-2012.

In recent years, the application of Community legislation has featured prominently among Community objectives in the field of environmental protection. While Community legislation on environmental issues has become extensive, its transposition into national law and its enforcement at national level have been lagging behind and in some cases have never come about, which has impeded the realization of sectoral objectives. The Sixth Action Program for the Environment for the period 2002-2010 therefore establishes as priority issues the improvement of the application of environmental legislation and the more, effective monitoring of the Member States and various polluting sources. Within the framework of harmonizing environmental legislation, modernizing the regulatory framework for chemicals has increasingly been on the agenda. The most important development on this front was when, in October 2003, the European Commission adopted a proposal for a new EU regulatory framework for chemicals. The so-called REACH (Registration, Evaluation and Authorization of Chemicals) Directive was adopted by the Council and the European Parliament in December 2006, following lengthy debates and negotiations.

REACH has two aims. Firstly, it hopes to make European chemical legislation more uniform and effective, by centralizing the registration and evaluation of chemical substances. Secondly, it is aimed at protecting human health and the environment by introducing a more structured system for the registration and handling of chemicals and by introducing better risk analysis. The Directive will enter into force gradually from 2007; it will be phased in over a period of 11 years at the end of which, in 2018, all chemicals will have to be registered with the European Chemicals Agency (ECHA) in Helsinki. In the field of nature protection, the Natura 2000 European ecological network is an important part of the Community efforts for harmonization. Natura 2000 ensures the preservation and recovery of biodiversity through the

313 The Kyoto Protocol annexed to the UN Framework Convention on Climate Change was opened for ratification in 1998. The required limit for its entry into force was that 55 of the parties ratified it, which should include those countries that were responsible for at least 55% of pre-1990 carbon-dioxide emissions. For a long time, it seemed that the Protocol would not enter into force; even though 120 countries ratified the Protocol, in the absence of the USA (the world's biggest CO₂ emitter), the second criterion was not fulfilled until Russia decided to sign up to it.

protection of natural habitat and wildlife fauna and flora. The task of the Member States is to designate protected areas and cooperate according to predefined rules.

2.1.2.2. Regulative Instruments: European Environmental Policy in Regulations and Directives

EU environmental legislation has developed unevenly, varying from measures on specific problems to directives on catchall issues. In the mid-1990s EU environmental legislation developed along two main lines: (1) the proposal of framework directives such as those on air quality and the ecological quality of water and (2) the consolidation or revision of existing directives such as those on environmental impact assessments, the prevention of major accidents involving dangerous substances (the so-called Seveso directive), and the quality of bathing water. Most environmental policy relies on the use of directives.

- *Seveso directive:*

After much debate following a major industrial disaster in Seveso, Italy, in 1977, the Council adopted a directive aiming to ensure that manufacturers using dangerous materials, as well as local authorities, have adequate contingency plans to limit the environmental impact of accidents. A revised and updated Seveso directive adopted in December 1996, kept the basic principles of the original directive but added new requirements and measures to achieve more consistent implementation.³¹⁴

- *Environmental impact assessments:*

In 1985 the Council adopted a directive compelling member states to demand “environmental impact assessments” before approving projects that by virtue of size, nature, or location are likely to have a significant impact on the environment. Assessments are mandatory for certain types of industrial and infrastructural projects.³¹⁵

³¹⁴ Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances

³¹⁵ Council Directive of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment 85/337/EEC

• *European Environment Agency (EEA):*

A 1990 regulation created the European Environment Agency to collect and circulate reliable data on the environment, thereby partially filling the information gap that had plagued EU efforts to formulate and enforce environmental policy. A dispute over the siting of European agencies, eventually resolved at the Brussels summit in October 1993, delayed formal establishment of the Environment Agency until October 1994, when it opened in Copenhagen.³¹⁶

• *Ecolabeling:*

In 1992 the Council adopted a regulation laying out rules for a scheme to award "ecolabels" to environmentally friendly products, ranging from detergent to refrigerators.³¹⁷

• *Ecoauditing:*

In March 1993 the Council adopted a regulation setting out the rules for the EU Eco-Management and Audit Scheme, which became fully operational in April 1995. Under the voluntary regulation, participating companies improve and periodically assess their environmental performance, provide adequate public information, and submit their systems and public statements to a review by a panel of independent experts. In return, companies are allowed to use a logo indicating their participation in the scheme.³¹⁸

• *Integrated pollution prevention and control (IPPC):*

In December 1996 the Council adopted a directive obliging member states to install regulatory systems that would issue a single permit to enterprises covering all types of emissions (air, water, and soil). This directive obliges regulatory authorities to evaluate the overall effect of a given operation on the environment not only by using criteria based on

³¹⁶ Council Regulation (EEC) No 1210/90 of 7 May 1990 on the establishment of the European Environment Agency and the European Environment Information and Observation Network

³¹⁷ Council Regulation (EEC) No 880/92 of 23 March 1992 on a Community eco-label award scheme

³¹⁸ Council Regulation (EEC) No 1836/93 of 29 June 1993 on Eco-Management and Audit Scheme

environmental quality standards but also by comparing emissions levels to those possible with the "best available technology."³¹⁹

- *Convention on Trade in Endangered Species (CITES):*

A 1982 directive instituted a system of licensing to implement the 1973 International Convention on Trade in Endangered Species. In response to the impending elimination of border controls, in 1992 the Commission proposed further measures to improve internal implementation of CITES rules, resulting in a Council regulation of December 1996.³²⁰

- *Wild birds directive:*

This directive updated six times between 1981 and 1994, is designed to protect more than 100 "particularly vulnerable" species of birds and their habitats. The directive also restricts hunting of additional species, but this provision is widely disregarded in certain member states (especially France) because of the strength of hunting lobbies.³²¹

- *Habitats directive:*

In May 1992 the Council adopted a directive establishing a general program for the protection of natural habitats. It was to be composed of a "coherent European ecological network," called "Natura 2000." The EU may designate sites as special conservation areas even if they have not been proposed by member states.³²²

- *Motor vehicle emissions:*

Responding to steadily increasing volumes of motor vehicle traffic and to public concern, EU standards have become stricter over time; as a result, emissions have been reduced by an astounding 80-90 percent per car since 1980. A 1970 directive began the process by setting

319 Council Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control.

320 Council Regulation (EC) No 338/97 of 9 December 1996 on the protection of species of wild fauna and flora by regulating trade therein

³²¹ Council Directive 79/409/EEC on the conservation of wild birds

³²² Council Directives 92/43/EEC of 21 May 1992 On the conservation of natural habitats and of wild fauna and flora

technical standards for emissions of CO₂ and unburned hydrocarbons for most gasoline-powered vehicles. The 1970 directive was based on optional harmonization: Member states were not obligated to implement the standards set forth in the directive but had to approve vehicles from other member states that met those standards. Although the Council amended its landmark 1970 motor vehicle emissions directive several times, the standards set by the amendments lagged behind those set in other large markets, notably the United States. The Commission and Council entered into an extended debate over updating EC emission standards in 1988 and 1989 with member states split over whether to introduce stricter standards for small cars (there was strong opposition from France and Italy, whose producers would be most affected). Eventually, bowing to pressure from the EP and the Dutch government, the Council adopted a directive requiring cars marketed in the EU after January 1, 1993, to meet standards equivalent to those prevailing in the United States (in other words, all new cars must be equipped with catalytic converters). A subsequent directive further tightened standards and called on the Commission to propose even stricter guidelines by mid-1996. The Commission did so, but the Council and the EP failed to reach agreement by the end of 1997, as stipulated in the 1991 directive. Apart from setting strict auto standards, the Commission has also concluded that further improvements in vehicle emissions will have to come from sources other than cars themselves. For instance new fuel mixes, better mandatory maintenance and inspection, and reduction in the use of cars.

• *Protection of the ozone layer:*

As concern grew over the effect of widely used chlorofluorocarbons (CFCs) on the earth's protective ozone layer, the EC took steps to limit use of CFCs in the early 1980s. The Commission and member states participated in the negotiation of the 1985 Vienna Convention for the Protection of the Ozone Layer, the 1987 Montreal Protocol (which created a mechanism for limiting use of CFCs and other ozone-damaging chemicals), and subsequent protocols tightening these restrictions and accelerating the phase out of some substances. Regulations in 1991 and 1994 on substances that deplete the ozone layer implemented the Montreal Protocol.³²³

323 Regulation (EC) No 2037/2000 of the European Parliament and of the Council of 29 June 2000 on substances that deplete the ozone layer

• *Water:*

Several major pieces of legislation concern water quality. Building on a 1976 framework directive the EC enacted most of its legislation on water quality during the next decade and passed updated legislation in the 1990s. The Commission began in the mid-1990s an attempt to consolidate diverse pieces of water legislation under a single framework directive. This initiative met with grave resistance from green campaigners who saw it as likely to repeal existing rules without replacing them with comparably tough policies. Eager to consolidate various water-quality initiatives, in February 1996 the Commission issued a communication on EU water policy, setting out objectives, principles, and proposed measures. Chief among these was a framework directive for water resources, proposed by the Commission in February 1997, laying down quality standards to be achieved by December 2007. In addition, major horizontal directives cover the quality of drinking water, bathing water, discharges to groundwater, quality of water containing freshwater fish and shellfish, surface water for drinking, and treatment of urban wastewater. In the Commission's view, the urban wastewater directive represents a departure from the traditional emphasis on quality standards and discharge limits and embodies a more general approach to confronting water pollution. It requires member states to provide for treatment of all urban wastewaters within a specific time frame.³²⁴

• *Waste:*

The EU's waste policy has three main environmental objectives: to recycle and reuse waste to a maximum extent; to reduce the quantity of unrecoverable waste. The EU began regulating waste disposal (hazardous and nonhazardous) in 1975 with adoption of a framework directive that defined waste in general terms and required member states to specify competent authorities and set up permit systems for waste disposal. A series of directives dealing with specific areas of waste disposal, relating mainly to hazardous wastes, followed the original framework directive.³²⁵

³²⁴ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy

³²⁵ Council Directive (75/442/EEC) of 15 July 1975 on waste

- *Toxic and dangerous waste (1978):*

This directive required member states, producers, holders, and disposers of toxic wastes to keep close track of the movement and disposal of those wastes through the use of permits and extensive documentation. A subsequent Council directive defined hazardous waste, established general requirements for facilities that deal with it, tightened documentation requirements to include registration of all wastes discharged at waste sites, established a consignment note system for transfer of such wastes, and restricted mixing hazardous wastes with each other or with nonhazardous wastes.³²⁶

- *Transfrontier shipment of hazardous waste:*

This directive created a system of compulsory prior notification and authorization for transport of hazardous wastes across national borders, including uniform documentation requirements.

The Commission made its first attempt into reduction of nonhazardous waste with a directive requiring member states to draw up a four-year program to reduce the contribution of beverage containers to the waste stream. In 1989, with the release of a communication on EC strategy for waste management, the Commission took a broader approach, promising to make a series of proposals covering multiple aspects of waste management. Among these, the directive on shipments of waste is probably the most important. Numerous disputes over EU competence and national sovereignty delayed adoption for well over a year. In its final version, the regulation covers shipments between states only, although it obliges governments to establish "an appropriate system" for control of shipments within their own borders and to notify the Commission of that system.³²⁷

³²⁶ Council Directive 78/319/EEC of 20 March 1978 on toxic and dangerous waste

³²⁷ Council Directive 84/631/EEC on the supervision and control within the European Community of the transfrontier shipment of hazardous waste

2.1.2.3. The Policy Tools of Environmental Policy in the EU: Environmental Action Programs

The Union's rising concern with environmental issues can be traced through successive Environmental Action Programs (EAPs). These multi-annual programs set objectives, state key principles, select the priorities and describe measures to be taken in different policy actors related to the environment. These Action programs expressed an increasing EU commitment to the issues of environmental protection. As the environmental movement gathered momentum throughout Western Europe, national governments and the Commission developed a keen interest in environmental issues. Accordingly, at their summit in Paris in October 1972, the heads of state and government took the unprecedented step of calling for an EC environmental policy. Within a year the Commission proposed and the Council adopted the first Environmental Action Program (EAP).³²⁸ This and the second EAP (1977) listed various measures that were essentially corrective in nature. Subsequent EAPs (1982, 1987, and 1993) emphasized preventive measures. Reflecting the economic depression of the early 1980s, the third EAP specifically called for environmental action that would contribute to economic growth and job creation through the development of less-polluting industries. It also advocated a European-level environmental impact assessment procedure and, for the first time, offered some EC financing for environmental projects.³²⁹ Reflecting the growing importance of environmental policy in the EC, in 1981 the Commission established a separate directorate-general -DG XI- to deal with environmental issues. Although smaller than other major DGs, DG XI quickly acquired a reputation for activism and as a main channel for environmental groups to pressure the Commission to pursue greener policies.³³⁰ This reputation often put DG XI at odds with its powerful counterparts engaged in economic and internal market activities.³³¹ By the Fifth EAP, published in 1992 and due to run until the year 2000, the EU's comprehensive competence in environmental issues was apparent. Entitled *Towards Sustainability*, the 5th EAP brought the term 'sustainable development' into EU jargon. At the heart of the concept was the idea that each generation should not close off options for the next. The notion of sustainable development thus underlined the EU's commitment to incorporate environmental concerns into other EU activities.

328 John McCormick, *Environmental Policy in the European Union*. The European Series. Palgrave, 2001, p. 21.

329 Ibid.

330 Andrew Jordan, *Environmental Policy in the European Union*. London: Earthscan Publications, 2002, p. 32

331 Ibid.

The fifth EAP resulted in the creation of an Environmental Consultative Forum which advises the Commission on various environmental issues. In addition to that the European Partners for the Environment (EPE), a Commission-initiated structure under the Environmental Fifth Action Program brought together some NGOs (such as WWF and the EEB) with business and trade unions and public authorities.³³²

Community action programs define the framework of the Community environmental policy. They set out the challenges and priorities for a given period and constitute a framework for Community measures on the environment, from legislation to the implementation of common projects. The Fifth Action Program of the nineties and the Sixth Action Program, which was introduced in the new millennium, presented a new, more complex and comprehensive Community strategy on the environment and developed the protection of the environment as one of the Community's priority objectives.

The Fifth Environmental Action Program (Seap)

The Fifth Environmental Action Program of the EU, for the period 1992-2000, adopted a new approach to the problems of the sector. Pursuant to the provisions of the Maastricht Treaty, the program focused on guaranteeing the necessary conditions for sustainable development.

The program concentrated on the following priorities:

- Improving the sustainable management of natural resources (soil, water, forests, etc.);
- promoting an integrated approach to combating pollution;
- stepping up recycling activities;
- reducing the consumption of energy from non-renewable sources;
- promoting prudent, environment-conscious mobility management;
- improving the quality of urban environment;
- improving health, reducing industrial hazards and improving nuclear safety.³³³

The priority objectives of the program were to integrate environmental concerns into other policy areas and establish the concept of shared responsibility with national governments, the business sector and the public. The program particularly underlined the importance of Community intervention to preserve and improve the environment in the following identified

³³² Ibid.

³³³ <http://ec.europa.eu/environment/actionpr.htm>

target sectors: industry, energy, transport, agriculture and tourism. These policy areas have a particularly large impact on the environment and may be more effectively regulated by concerted Community actions.

To facilitate the achievement of the set objectives, the program provided for the development of new instruments, such as the promotion of the introduction of environmental taxes and incentives for producers who respect the environment and who produce environmentally friendly products.

The Sixth Environmental Action Program (6eap)

The Fifth Environmental Action Program brought about a reduction in trans-boundary air pollution, better water quality and a reduction in substances that deplete the ozone layer. On the other hand, less progress was made than had been foreseen, the integration of environmental concerns into other Community policies was slow and the Union was still far from achieving the objective of sustainable development. Therefore, in the Sixth environmental Action Program for the period 2002-2010, the Community seeks to give further impetus to environmental policy by pursuing its action in the areas already covered by the Fifth Action Program, addressing the same priority objectives (the principles of sustainable development and integration of environmental aspects into other policy areas), while also defining new targets.

The EU's Sixth Environment Action Program sets the framework for EU environmental policy until 2010.³³⁴ As such, it forms the main environmental contribution to the EU Sustainable Development Strategy and its four priorities - climate change; environment and health; protecting nature and biodiversity; and promoting the sustainable use of natural resources and waste management - coincide with four of the six priorities in the Sustainable Development Strategy.³³⁵ A major innovation of 6EAP is the development of seven Thematic Strategies setting specific objectives, targets and timetables; identifying appropriate mixes of instruments; and establishing monitoring and reporting arrangements.³³⁶ They are

334 Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions on the Sixth Environment Action Programme of the European Community, "Environment 2010: Our future, Our choice" COM (2001) 31 final

335 Ibid.

336 Ibid.

accompanied by two Strategic Approaches: an integrated product policy and the territorial dimension.³³⁷

The Sixth Action Program focuses on four priority areas:

- Climate change,
- Nature and biodiversity,
- Environment and health,
- Natural resources and waste.³³⁸

In the above four areas, the Sixth Action Program proposes five priority strategic actions:

- Improving the implementation of existing legislation;
- effectively integrating environmental concerns into all relevant policy areas;
- encouraging closer cooperation with the business sector and consumers;
- improving the quality and accessibility of information provided to people as private citizens;
- promoting environmentally-conscious behavior towards land-use.³³⁹

The Sixth Action Program was drawn up in the light of the Community's strategy of sustainable development, elaborated in 2001, which further increases the importance of environmental policy among Community priorities. The Union's sustainable development strategy is based on the principle that the economic, social and environmental effects of all policies should be examined in a coordinated way and taken into account in decision-making.

The 6EAP highlights a number of cross-cutting themes and principles which should be reflected in each of the Thematic Strategies. In relation to policy effectiveness, environmental policy proposals should be based on the best available scientific evidence. More and better data on the state and trends in the environment should be collected, and the priorities of the Community's Sixth Research Framework Program should reflect the priorities of the 6EAP.³⁴⁰ Ex ante and ex post evaluation is required for improved knowledge of the likely and actual effects and effectiveness of specific policy measures.

In addition, policies should be developed on the basis of extensive participation of all stakeholders, including the general public, local authorities and Non-Governmental

³³⁷ Ibid.

³³⁸ <http://ec.europa.eu/environment/newprg/review.htm>

³³⁹ Ibid.

³⁴⁰ Ibid.

Organizations (NGOs). Public awareness of environmental issues and EU policies should be enhanced through early ratification by the Community of the Aarhus Convention, and additional finances should be made available to support the work of environmental NGOs.³⁴¹

Integration of the needs of the environment into sectoral policies should be strengthened. The integration strategies should be followed up, and appropriate targets, timetables and indicators developed. Impact assessments of major Commission proposals should also be introduced.³⁴²

A broader range of policy instruments should be employed, including 'getting the prices right' through tackling environmentally harmful subsidies and encouraging the use of environmental taxes and incentives; the introduction of tradable permits; improved consumer knowledge; environmental management and procurement systems; and sustainable land-use planning in urban, coastal and other sensitive areas.³⁴³

Implementation and enforcement of EU measures need to be tightened through more systematic reviews of implementation across Member States; exchanges of best practice through EU Network for the Implementation and Enforcement of European Environmental Law (IMPEL); and a program of support and advice to improve compliance among SMEs.³⁴⁴

More effective and efficient reporting systems need to be developed to make available to policy makers and the public more policy-relevant, reliable and comparable information, while at the same time streamlining the plethora of individual reporting obligations faced by Member States.³⁴⁵

Briefly, in order to improve the efficiency of the environmental policy, it has to be integrated with other sectoral policies, the instruments have to be extended and implementation and enforcement of environmental legislation have to be strengthened in the EU.

2.1.2.4. The Change and Adaptation Agent: The European Environment Agency

One of the primary objectives of environmental policy during the last decade has been to ensure that the public is properly informed on the state of the environment and effectively educated about environmental matters and that public awareness of environmental problems is improved. In this respect, the unobstructed flow of information and data is of fundamental importance. To this end, in 1990, the Council adopted a Regulation³⁴⁶ establishing the

341 Hallstrom, Lars K. 'Eurocratising Enlargement? EU Elites and NGO Participation in European Environmental Policy' *Environmental Politics* Vol. 13, No. 1, 2004, p. 179.

342 Ibid.

343 Ibid., p. 182

344 Ibid., p.183

345 Ibid.

346 Regulation 1210/90/EEC, amended by Regulation 933/99/EC.

European Environment Agency. The Agency started its operations in 1994 with its headquarters located in Copenhagen. Its main objectives are: to provide the Community, the Member States and third countries with information on the state of the environment; to gather, evaluate and disseminate data for the countries concerned; to direct the countries' attention to the need for effective implementation of environmental policies, and; to develop forecasting techniques to enable preventive measures to be taken. A key objective of the Agency is to assist the EU in promoting sustainable development.

2.1.2.5. Financial Instruments

The EU allocates financial resources to sustain the objectives and action programs implemented within the framework of the Community environmental policy. Regional support is available from the Structural Funds for projects that aim to improve the state of the environment in a particular region. The Cohesion Fund, supporting the less prosperous Member States, allocates half of its total budget to environmental investments. In addition, regions under the Convergence Objective can decide to use the financial support of the European Regional Development Fund for environmental investment.

Research projects on environmental protection also receive substantial financial support within the framework of Community research and development programs. The European Investment Bank issues loans for environmental development and investment projects. In addition, in 1992, the EU set up a fund for the environment, the LIFE³⁴⁷ program, which co-finances environmental activities in the Community and in certain non-Community countries (Eastern European and Mediterranean countries).³⁴⁸ The European Commission submitted its proposals for the 2007-2013 financial perspectives in 2004. In its proposals, the Commission put forward the idea of launching a new, more comprehensive environmental facility with the name LIFE+.³⁴⁹ LIFE+ seeks to strengthen EU action in fields such as: “combating climate change, addressing threats to human health, preserving biodiversity, and managing natural resources and waste in a sustainable manner. LIFE+ consists of three elements: 'LIFE+

347 The English acronym 'LIFE' comes from the abbreviation of the French "l'instrument financier pour l'environnement" (meaning: financial instrument for the environment).

348 <http://ec.europa.eu/environment/life/>

349 Ibid.

Nature and Biodiversity', 'LIFE+ Environmental Policy and Governance', 'LIFE+ Information and Communication'. Participation in LIFE+ is open to neighboring countries.”³⁵⁰

2.1.3. Decision-Making in the European Union on Environmental Issues

The environment marks an especially dynamic policy area in the EU. Unlike more entrenched policy areas such as agriculture, patterns of EU decision-making in the environmental arena are still relatively new and fluid. The open character of decision-making on environmental policy has several broad implications. It means that there is no single pattern to environmental decision-making which reflects the informal politics of bargaining and resource exchange across and within loose issue networks. The cross-sectoral character of environmental issues complicates decision-making. The overlap between the environment and other spheres such as the internal market, agriculture or cohesion policy is widely recognized.³⁵¹ EU policy-making is extraordinarily complex. First, it reflects the competing interests expressed by civil servants and governmental officials from 25 Member States with widely varying environmental priorities. Second, the EU's environmental policymaking process includes non-state actors such as scientific experts, environmental NGOs and business interest groups. Their participation stems from the dependence of the Commission, who proposes legislation, on a wide variety of sources for information. But the highly technical nature of environmental policies accentuates the Commission's need for outside experts.³⁵² DG XI, must rely on a wide array of participants from outside its department for technical and political advice. DG XI has been generally considered to be more open to lobbyists than any other DG.³⁵³ In particular, it is relatively open to a wide array of pressure groups and environmental NGOs anxious to exert influence.³⁵⁴ Scrutinizing the stages of the policy process in general terms leads to the conclusion that the large number of institutional access points to the EU system favors the position of entrepreneurs in bringing new ideas to the EU agenda. When organizations and individual officials in a coalition have prestige and political resources equal to or greater than that of the opposing interests, there is a better chance for successful entrepreneurship. EU environmental coalitions have struggled to move initiatives through the Commission and

³⁵⁰ Ibid.

³⁵¹ John Peterson, & Elizabeth Bomberg, , op. Cit. 1999, p.178

³⁵² Anthony R Zito,,”Creating Environmental Policy in the European Union”, Palgrave, New York, 2000, p.168

³⁵³ Martin & Phillip Porter, , Alan Butt, “The Role of Interest Groups in EU Environmental Policy

Formulation:A Case Study of the Draft Packaging Directive”, European Environment, vol.3, heft.6, 1993, p.16

³⁵⁴ Elizabeth Bomberg , op. Cit. 1998, p. 42.

Council veto points because DG XI and its allies face more established sectoral organizations responsible for the Single Market and other policy sectors.³⁵⁵

In short, environmental decision making is not simply a process which reflects dominant coalitions of member states pushing their own national style of regulation. National concerns are displaced onto a higher level, but in the process become mediated by institutional bargaining between the Council, Commission and, increasingly, the EP. In environmental policy the institutional balance of power is constantly shifting, and decisions rules are manipulated in the struggle. Three institutional factors are particularly important in determining how policies are set the increase in veto players, the growth in the EPs power and commission's enduring role as agenda setter.

355 Hey, C., Janicke, M. and Jörgens, H. 'Environmental Governance in the European Union' Paper prepared for the Second ECPR Conference, Marburg, September 18th – 21st, 2003.

Table 2.1: Actors involved in making EU environmental policy

Policy Phase	Actors	Comments
Defining the environmental problem in general terms	Multiple influences at national and EU level	Lobbying by interested groups at both national and Supranational levels of government
Deciding how to apply the principle of subsidiarity	Council of Ministers, European Commission, Commission initiates the legislation	Lobbying of Commission, European Parliament
Setting the Agenda	Council of Ministers, European Council, influence of the Commission and the EP	Lobbying of Commission, European Parliament reflects the separate agendas of each actor
Teasing out the differing strands of the problem	Consultation phase, adding the European Parliament the Economic and Social Committee and the Committee of the Regions	Lobbying done at this stage is already too late to have a significant impact on the legislation
Objectives setting and prioritization of the issues	Council of Ministers	Constraints emerge, placed by the national governments, especially if financial issues are identified
Identification of the preferred option	Council of Ministers	Outcome of negotiation and bargaining process - legislation adopted
Implementation, Monitoring, and control	National governments, the Commission; and support of the European Court of Justice	Public participation as an important part of the process. Importance of the development of the role of the European Environment Agency
Evaluation and review	National governments, Commission. NGOs, individuals, industrial actors	Wide range of actors involved at this stage. Problems of control and monitoring emerge
Policy maintenance, succession and possible termination	Commission and national governments	Problems of control and monitoring emerge

Source: Barnes Pamela M. And Barnes Ian G., "Environmental Policy in the European Union", Edward Elgar Publishing 1999, p .61

2.1.4. The EU as an Emerging International Change Agent

Almost from the beginning, EU environmental policy acquired an international dimension. In its early years, the EU was considered competent to conclude an international convention only when this was expressly provided for in Treaty. During the last twenty-five years, the EU has over time and with some difficulty evolved into an international actor in the environmental area. That difficulty has been caused primarily by (1) questions about whether the EU has competence to deal with specific issues under consideration, and (2) the fact that the European Commission, even when possessing legal competence, is dependent on the member states for representation in international negotiations because the EU is not a full-fledged member of such negotiations.³⁵⁶ In those cases where 'mixed competence' exists, ad hoc arrangements are typically characterized by the Presidency of the Council of Ministers (CoM) speaking for the agreed EU position when such exists.³⁵⁷ The EU's global role expanded considerably in 1971 when the ECJ ruled (ERTA ruling) that, where the EU had passed internal legislation in a particular area, it had the right to handle external affairs relating to that field.³⁵⁸ Still, ambiguity remained regarding the proper division of labor in negotiating international environmental agreements, and precise competencies and roles often were not decided until negotiations were under way.³⁵⁹ It did not specify which of the institutions would have the authority to represent the EU whether the Commission or the Presidency of the CoM but it did set the stage for the EU's international activity.³⁶⁰ Realizing that pollution had no bounds and that environmental degradation was a global problem, in 1970s member states undertook to coordinate their international positions. On that basis, the EU became increasingly involved in worldwide environmental affairs. After the 1972 Stockholm Conference, the member states began signing multilateral environmental agreements. The Commission, for its part, feared that such agreements would establish barriers to trade which would hinder the EU's attempts at economic integration. The Commission therefore quickly identified relations with third

356 John Vogler, and Hannes Stephan. The European Union in global environmental governance. *International Environmental Agreements* 7, 2007 p. 397

357 Alberta Sbragia & Chad Damro "The Changing role of the European Union in International Environmental Politics: Institution Building and the Politics of Climate Change, Environment and Planning", *Government and Policy*, vol.17, 1999, p.54

358 John Vogler, The European contribution to global environmental governance. *International Affairs*, 81(4), 2005, p. 842

359 John Peterson, & Elizabeth Bomberg, op. Cit. 1999, p.186

360 John Vogler and Hannes Stephan op. Cit. 2007, p. 401

parties as a part of its environmental policy. The EU subsequently became part to numerous multilateral environmental agreements.

The EU's international status began to improve with the Vienna Convention on the Ozone Layer signed in 1985. The Council of Ministers had agreed as a pre-negotiation position that the EU should become a contracting party without conditions being attached, and the Commission vigorously pursued that position in the actual international negotiations in the face of US and Soviet objections.³⁶¹ Finally, a compromise was reached which included both the EU and the member states. A similar process occurred during the negotiations of the Montreal Protocol.³⁶² The SEA authorized the EC to enter into international agreements on environmental issues "with third countries and with relevant international organizations," and the fourth EAP called on member states and the EC to participate actively on the international stage to protect the environment.³⁶³ When the base was provided in the Single European Act and reinforced in the Treaty of European Union (Maastricht), the Commission gained legal authority to represent the EU in external relations in the environmental arena and fresh impetus to act in other areas. Even when policy competency was provided, however, the international status of the EU outside of the General Agreement on Tariffs and Trade (GATT) was ambiguous and therefore often contested by the member states; furthermore, its presence as a negotiator was resisted by other international actors.³⁶⁴ Strong intergovernmental constraints still exist which limit the range of measures that can be adopted, as well as the scope and character of environmental policy.³⁶⁵

The need for global solutions to global problems expanded the EU's environmental policy beyond European borders. The EU and the member states participated in the Rio Conference in 1992 which underlined the EU's contribution to the causes and solutions of global environmental problems, adopted three basic texts: the Rio Declaration on the Environment and Development (general principles relating to the environmental implications of economic development), Agenda 21 (a comprehensive work program covering virtually every aspect of environment and development), and a nonbinding statement on forest principles.³⁶⁶ The 1992 United Nations Conference on the Environment and Development (or Rio summit) most

361 Ibid.

362 Alberta Sbragia & Chad Damro Op. Cit. 1999, p. 57

363 Ibid.

364 Ibid, p. 55

365 John Peterson & Elizabeth Bomberg op. Cit. 1999, p.182

366 Desmond Dinan, op. cit. 2005, p. 419

Member States were too small individually to play an effective role in global negotiations, but the EU was a powerful transnational actor able to answer environmental as well as economic global challenges. The range of issues to be discussed by the conference was so broad that it was difficult to see any areas in which the EU had exclusive competence.³⁶⁷ However, the EU was much more visible as an international actor. Although the EU signed multilateral agreements, its status as an international actor was always debatable. First, its exact policy competencies were never clear even after the Maastricht Treaty. Second, the Commission's role in negotiations was also unclear, and the dividing line between the EU's jurisdiction and that of the member states acting unilaterally was also ambiguous. However, the European Union's position in the global environmental arena has changed dramatically since the mid-1980s. It is now an acknowledged actor on the global scene, and it is viewed as supporting the kinds of strict standards traditionally associated with a 'leader' in global negotiations. Whereas it blocked progress during the negotiations over the Vienna Framework Convention on Ozone and did not play a leadership role during negotiations on the Montreal Protocol on substances that deplete the Ozone Layer, it gradually became more willing to set the agenda after the Protocol's London meeting. By the time of the Kyoto negotiations over climate change in December 1997, the EU had taken on a leadership role.³⁶⁸

2.1.4.1. Integrated Action against Climate Change

The Integrated Climate Change and Energy Policy, launched at the European Council of 8-9 March 2007, can be considered a new pillar of Community environmental policy and a key EU achievement of recent years. The integrated policy is aimed at tackling climate change and global warming and reflects the conviction that successful environmental protection should be aimed at integrating environmental aspects into all other policies, in particular the transport and energy sectors, as the main polluters.³⁶⁹ This is what makes the Integrated Climate Change and Energy Policy a milestone. The European Union has been playing a leading role in the application of the Kyoto Protocol, arguing in multilateral talks for its extension beyond its expiry in 2012. However, some important countries (especially the two biggest polluters: the USA and China) are reluctant to engage in increased global action. The EU has recognized that the best way of putting pressure on its partners is to lead by example

367 John Vogler, *Op. Cit.* 2005, p. 844

368 Alberta Sbragia & Chad Damro *Op. Cit.* 1999, p. 53

³⁶⁹ <http://www.euractiv.com/en/energy/energy-climate-change-integrated-eu-policy/article-160957>

and make a voluntary commitment to tackle climate change. The Union's target is to limit the global average temperature increase to 2°C compared with pre-industrial levels. To this end, the Member States made a unilateral strategic pledge at the March 2007 summit to increase the share of renewable energy in their consumption to 20% by 2020 and to cut carbon-dioxide emissions from the 1990 level by 20% by 2020 (the Kyoto target was only 8% by 2012).³⁷⁰

The European Council also set the objective of reducing the emission of greenhouse gases from the 1990 level by 60-80% by 2050.³⁷¹ Alongside these objectives and voluntary limitations, the EU made global target commitments a key agenda item of the June 2007 G8 summit (uniting the world's leading powers). Due to the pressure applied by the EU, the G8 finally agreed to set specific targets, if less ambitious than Europe's, and that greenhouse gas emissions must be halved by 2050 and pledged to act jointly for the adoption of this objective in a UN framework.³⁷²

2.1.5. Assessing EU Environmental Policy as a source of Adaptational Pressure

The formulation of environmental policy is multi-layered and characterized by complexities because of the nature of the issues which are being dealt with as well as the many constraints on the policy process itself. The EU is searching for a policy-making strategy which will eliminate some of the constraints which these characteristics present. There are three issues which the policy makers have to resolve in this search: first, to establish that there is a need for the EU to take action on environmental protection; second, to ensure that there is commitment and willingness to act among the national governments; and third, to obtain enough resources to make the policy work.³⁷³ The protection of the environment by the EU has become so extensive and so intrusive that policy-making in this sector is now very much shaped by the impacts of previous legislative achievements. Environmental policy is now one of the major policy areas in which Brussels plays a critical role.³⁷⁴ Institutionally, environmental legislation, now subject to QMV rather than unanimity, is easier to adopt, but

³⁷⁰ Ibid.

³⁷¹ Ibid.

³⁷² Putting the agreement into a UN framework is important because emerging, developing countries have become big emitters (China has caught up with the USA in emission levels), but are not required to cut emissions under the Kyoto protocol (that is why easily agreed to ratify it). Kyoto will require a major overhaul after 2012, when it is due to expire.

³⁷³ Neil Carter, 'Transforming Environmental Policy: Does Europe Lead the Way?' *Environmental Politics* Vol. 16, No. 3, 2007, p. 526.

³⁷⁴ Ibid, p. 527

the political commitment to impose strict and intrusive regulations through command and control processes has diminished very significantly.³⁷⁵ Given that it has a policy-making process which is characterized by complexity, the EU appears to have become a major player in an international environmental context. The EU's achievements in the area of environmental policy since 1972 have been remarkable. There have been more than 200 directives adopted, plus 200 or so other measures.³⁷⁶ However, the policy-making process continues to display potential for major problems relating to fragmentation and lack of policy coordination. The effectiveness of the policy measures is undermined by the inadequacy of implementation and enforcement by the national governments. Despite the progress which has been made on the introduction of environmental protection measures, the economic imperative continues to provide the context in which policy is formulated. Furthermore, the EU's environmental policy has developed against a background of an increasingly crowded national policy space. It has therefore proved to be difficult on occasion to alter the focus of the policy quickly.³⁷⁷ Although the EU has developed a strong regulatory regime in environmental policy, its success in integrating environmental concerns into other policy areas remains limited. This expansion in the EU's environmental remit occurred in response to pressures both from above (international negotiations and treaties) and from below (public opinion and member states).³⁷⁸ Overall progress towards integrating an environmental ethos into other EU policies has been slow and difficult. Whereas environmental policy has become more stringent in its own traditional domain, the impact of environmental considerations on other areas of policies often remains weak.³⁷⁹ Policy making is often frustrated by the differing values and expectations of the actors involved. Whilst the institutional framework from which EU policy issues was not designed to deal with the specific and complex issues which are included in environmental policy, that framework was designed to deal with often conflicting national interests.³⁸⁰ What is clear is that on environmental issues the national governments of the member states have formed very stable policy communities, and environmental issues are often pursued because national policy initiatives force them on to the EU's agenda.³⁸¹ The typical bargaining among governments concerned with how environmental protection affects the economic competitiveness of their firms and their public

375 Ibid.

376 Nigel Haigh, ed. 'Manual of Environmental Policy' Release 24. Oxford: IEEP/Elsevier, 2003, p.13.

377 Ibid.

378 Cristoph Knill, & Duncan Liefferink. Environmental Politics in the European Union. Manchester & New York: Manchester University Press, 2007, p. 26

379 Ibid.

380 Ibid., 65

381 Ibid.

finances. Therefore to the extent that environmental policy intersects with issues connected to national sovereignty political coalitions shift. The principle of subsidiarity has been proposed as the appropriate framework to provide the answer to the question of who makes the decisions within the EU.³⁸² Decisions made as a result of the application of subsidiarity identify the most appropriate tier of government to tackle a particular problem. This establishes whether the need is for EU or national action and thus determines who the actors in the policy-making process should be. At the same time the transboundary nature of environmental problems makes the application of subsidiarity difficult and problematic.³⁸³ As environmental pollution is transboundary and environmental measures may act as barriers to trade in the internal market, this would seem to imply that all environmental action should be taken exclusively at the supranational level. The European Court of Justice has upheld the European Commission's view that the principle of proportionality of action should also apply as decisions are being made.³⁸⁴ Both principles are subject to a great variety of interpretation. As a result the national governments may try to use the subsidiarity principle to avoid the implications of supranational policy formulation. In its application there are opportunities for increased fragmentation as the environmental policymaking process continues to be dominated by national self-interest and lack of transparency. Decisions made during the forming of policy must be open to debate and scrutiny; otherwise the suspicion will remain that national governments are using the EU's environmental policy to support national self-interest and not to protect the environment.³⁸⁵ With the expansion in the number of issues covered by the EU's environmental policy has come the opportunity and necessity for groups within the EU to gain access to the policy making process. DG XI (Environment) of the European Commission is actively engaging measures to increase the involvement of various interests in the policy process, for example green interest groups, consumer groups and industrialists.³⁸⁶ There are therefore advantages to be gained by finding some way of influencing the policy-making process. Lobbying at the national level is an important way of mobilizing support for an issue, as existing national policies play an important role in the design of EU policies. Environmental interest groups can be effective lobbyists at both the

382 Barbara Hartman, *Subsidiarity in EU Environmental Policy*. *Problems of Sustainable Development*, Vol. 4, No. 1, 2009, p. 95

383 *Ibid*, 96

384 *Ibid*, 97

385 Duncan Liefferink and Andrew Jordan. An "Ever Closer Union" of National Policy? The Convergence of National Environment Policy in the European Union, in: *European Environment - The Journal of European Environmental Policy* 15 (2), 2005, p. 111

386 Richard Damania Political lobbying and the choice of environmental policy instruments *Environmental Modelling & Software*, Volume 16, Issue 6, 2001, p. 512

national and supranational level. As the European Parliament has gained in its powers, the environmental groups have made the MEPs targets for lobbying.³⁸⁷ However, much of the lobbying done on behalf of the industrialists by professional lobby organizations and business associations targets the European Commission. Lobbying at an early stage of the design of policy has the most successful outcome. Once the negotiation process begins within the Council of Ministers, any flexibility in the system is lost as the vested national interests of all the member states begin to be brought to bear on an issue.³⁸⁸ Still, from an essentially economic community with no firm legal basis for dealing with such issues, the EU has taken on an increasingly central role in policy sectors related to the environment and quality of life. Over the past 20 years, the EU has built up a substantial body of environmental law and has even embraced some green ideals such as the notion of sustainable development. Behind more than 200 environmental directives that tackle particular policy issues lies a strategic policy framework, provided by EAPs and Treaty articles, EU environmental policy can also be credited for having pushed a significant proportion of EU Member States further than they would otherwise have gone in areas of environmental protection, while creating provisions that allow other Member States to pursue stricter environmental standards than mandated by EU law. In addition to these the growing role of the EU has prompted a wide variety of green actors to seek access to and reform EU institutions and policies.³⁸⁹ The first barrier to 'greenness' might be termed the 'integration gap', that is, the failure of environmental considerations to be integrated into decisions made in other policy sectors such as regional funding, transport or agriculture and the internal market. The second factor inhibiting policy development in environmental and related issues is the implementation gap.³⁹⁰ Whilst an impressive legislative framework has been built up, there is no corresponding structure for environmental management. As a result, the degradation of the EU's environment has continued. Third, whilst EU legislation might raise standards of 'laggard' states, might also effectively pull down or weaken the environmental legislation of 'leader' states such as Denmark, Sweden or The Netherlands.³⁹¹ Indeed, fears that Sweden would have to accept diluted environmental regulations were a primary reason for the Swedish Greens' opposition to EU membership.³⁹²

387 Ibid.

388 Ibid, 514

389 Cristoph Knill & Duncan Liefferink. op. cit 2007, p. 41

390 Ibid, p. 43

391 Ibid, p.44

392 Ibid.

2.2. The Subject to Change: Environmental Policy in Turkey

After decades of neglect, Turkey began addressing environmental issues during the 1970s. In 1978 the Prime Ministry Undersecretariat for Environment was founded as an extension of a state ministry responsible for the coordination of all national and international activities concerning the environment. Setting environmental policy, preparing regulations, coordination and cooperation with other ministries were expected from the Undersecretariat. However, the adaptation of environmental policies was not able to keep pace with Turkey's industrial development. The industrial development in Turkey was faster than adaptation of environmental policies and environmental problems were not considered a priority for a long time. In August 1991, the Undersecretariat for the Environment was replaced by the Ministry of Environment. In 2003, for building more institutional capacity Ministry of Environment has been merged with the Ministry of Forestry and since then it is called as Ministry of Environment and Forestry.

In Turkey, the negative consequences of economic development are now widely acknowledged. Population growth, industrialization, urbanization, use of pesticide in agriculture, overdevelopment of coastal areas for tourism are but a few examples of the rapidly intensifying causes behind the deterioration of national environmental integrity.³⁹³ Although, there are strong attempts to transition towards sustainable development, environmental problems are getting worse in Turkey.

This situation does not reveal a lack of political interest to the environment. Actually, environmental issues are now a major concern for national politics in Turkey. The positive situation and progress in environmental issues in Turkey have two main reasons. First it is a response to domestic pressures coming from environmental movements and secondly it is a reaction to international trends, such as Rio Conference or Johannesburg Summit. As a result, Turkey has put together a notable body of environmental policies and legislations that seek to decrease damaging effects of economic processes and to manage national natural assets such as biodiversity, coastal waters and forest resources.

The negative impact of economic activity on the environment is also commonly accepted by

³⁹³ Fikret Adaman and Murat Arsel, "Introduction" in Fikret Adaman and Murat Arsel (eds) *Environmentalism in Turkey Between Democracy and Development*, Burlington, Ashgate Publishing Company, 2005, p. 3.

all influential actors in Turkey.³⁹⁴ Turkey demonstrates characteristic issues about environmental issues shown by almost all developing and modernizing countries. These include urban air pollution, rapid deforestation, industrial emissions, discharge of toxic effluents by industry, worsening of agricultural lands, and soil erosion.³⁹⁵

Although the progress was slowly at the beginnings, environmental politics in Turkey developed rapidly since the early 1990s. These progressions are mainly as a result of the demands of civil society and the dictates of various international actors. In fact, environmental policies in Turkey have historically been made largely in response to international political developments—thus, “many concrete manifestations of the attempts to achieve sustainability have their roots in events such as the Stockholm Conference and the Johannesburg Summit. The Ministry of Environment, for example, was created in time to coincide with the Rio Conference.”³⁹⁶ On the other hand, Turkey also has constitutional and other legal precedents that can be perceived as encouraging to environmental protection. The Article 57 in the Constitution of 1982 is the utmost one. The article acknowledges all citizens’ ‘right to live in a safe and sound environment’.

In this part of the chapter, environmental policy in Turkey will be assessed. The objective of this part is to explain what has done about the issue of environment how it is perceived in Turkey before the influence of the European Environmental Policy become more evident, which is the independent variable of the analysis.. This chapter, within the general framework of the dissertation, exhibits main lines of Turkish environmental policy which is the dependent variable of the study. In fact, the influence of the EU or Europeanization are, deliberately, either not mentioned or mentioned very limited, because those issues are the subjects of the next chapter.

For the purpose mentioned above, in the first section, the process of the environment will be evaluated since the Ottoman era until today. Here, it will be started with the first legal arrangements made by the Ottomans. This will be followed by the developments in the early Republican era and progressions made in recent history and assessment will be finished with

³⁹⁴ Ibid. p. 4.

³⁹⁵ Zühre Aksoy “Biodiversity and Biotechnology in the Agriculture Sector”, in Fikret Adaman and Murat Arsel (eds) *Environmentalism in Turkey Between Democracy and Development*, Burlington, Ashgate Publishing Company, 2005, p. 236

³⁹⁶ Fikret Adaman and Murat Arsel, *Op.Cit.*, p. 4

the foundation of the Ministry of Environment and Forestry (MoEF).

In the second section, the Turkish legislation on environment will be elaborated. Constitutional approach to the environment and its impact on environmental legislation will firstly be assessed. Then the Turkish Environment Code will be dealt briefly, more extensive analysis, especially, about the amendment to it will be made in next chapter. Finally, other legislation about the environment, such as regulations or other laws and codes, will be dealt.

In the third section, the responsibilities of Turkey entailed from international environmental agreements will be evaluated. Firstly, the agreements of which Turkey is a signatory and the consequences of those agreements in Turkey will be assessed. Secondly, United Nations conference on Global Climate Change and Turkey's stance in this conference will be evaluated. Lastly, Kyoto Protocol and Turkey's position against it will be handled in the light of current developments.

In the fourth section, the institutions about environment in Turkey will be elaborated. Firstly, the MoEF and other ministries related environmental issues are mentioned then the affiliated organizations to MoEF and local organization of it evaluated. Finally, the impact of the Nongovernmental Organizations (NGOs) to the environmental problems and their historical development will be explained.

In the fifth section, the issue is to understand how the environment was dealt in government programs since 1980s, when the environment handled in the Constitution for the first time, and how it was approached by the politicians in the course of time.

In the sixth section how the environment was dealt in the Five Year Development Plans, which are among the most important policy documents of Turkey, will be demonstrated. The assessments will start from the first one and they will end with the seventh one. The last two, namely eighth and ninth one will not be elaborated in this chapter, though they are going to be analyzed in the next chapter.

In the last section, the problems on implementation of environmental policy and barriers to an efficient environmental management in Turkey are demonstrated in the light of information provided by the previous sections in the chapter. Respectively, the current situation and

problems about environmental legislation, financing of environmental projects, public participation in environmental issues, receiving environmental information and providing environmental education are assessed.

2.2.1. Development of Environmental Policy in Turkey

The emergence of the environment as an issue in Turkish history overlaps with the initiation of first fundamental westernization movements. The issue of environment had been affected by the institutionalization policies of Tanzimat (Reorganization) era started with the declaration of rescript of Gülhane in 1839. Due to the conditions of the time and relatively low degree of industrial pollution, at those times it is hard to mention environmental policies as it is understood today. There were no legal arrangements directly dealing with environment, instead arrangements made for, especially, health and urbanization indirectly affected the issue of environment. Furthermore, these arrangements found very limited place to be implemented, only Istanbul and a few urban areas had chance to implement those arrangements in the Empire.

There had been no fundamental change in the approach to the environment with the declaration of Republic, only the number and scope of the legal arrangements made in different fields were extended. However, the issue of environment was not assessed as a separate and single topic. The issue of environment, together with numbers of other nations, had become an important topic in Turkish political agenda only in 1970s. Environment has been considered as a relatively significant issue in Turkey and its importance gradually increases since 1970s. In this section the legal and institutional past of Turkish environmental policies would be assessed under three topics, as preceding the foundation of Republic, From the Foundation of the Turkish Republic to 1970s and Since 1970s.

In the late Ottoman era some legal arrangements were conducted in the field of environment. The first one among those had been the ‘International Health Committee’ (Beynelmilel Sıhhiye Meclisi) which is formed in 1839.³⁹⁷ If urban planning is considered as related to environmental problems, the 18th century development plans and plans for zoning could also

³⁹⁷ Kemal Görmez, *Türkiye’de Çevre Politikaları*, Ankara: Gazi Büro, 1991, pp: 109–110.

be seen as environmental policies. First major ruling in plan for zoning was ‘Buildings Regulation’ (Ebniye Nizamnamesi) which was issued at 1848.³⁹⁸

In this regulation articles on road and building construction and condemnation were realized. Although it is produced with an intention to be implemented in the whole Empire, the implementation was limited only to Istanbul and some big cities. In 1882 this regulation had been abolished and the ‘Law of Buildings’ (Ebniye Kanunu) came into effect.³⁹⁹ Law of Buildings had been the first law for zone planning in the Ottoman Empire. According to this law, municipalities are required to prepare maps of streets and surroundings of those streets which they are planning to build and announce it to the public.⁴⁰⁰ However, this decree again had been limited only to Istanbul.

In Ottoman era the arrangements about environment was not only restricted to zone planning. In 1869 the decrees on forests, which were thought as one of the most important issues in Ottoman State, was issued as ‘Forest Regulation’ (Orman Nizamnamesi). In early 1900s the ‘Historical Artifact Regulation’ (Asar-ı Atika Nizamnamesi)⁴⁰¹ had come into force for preservation of historical artifacts of the Country which is considered quite important by the Elites of that era.

As it is observed, although not naming them as environmental policies, Ottoman Empire made some arrangements and rulings in order to prevent environmental problems. However, those arrangements could not be implemented fully as a result of the conditions of that era. The heritage transferred to Republic of Turkey from Ottoman Empire was not sufficient at all. On the other hand, since the industrialization process was at a very early stage in Ottoman State, it had not created crucial environmental problems in the Country.

It is not possible to say too much about environmental policies in the beginnings of the Republican era. The struggles to become a new State after long years of wars had been the main factor for this situation. Being the capital of the new Republic, problems of Ankara draw attention in the first place in early republican era. Another priority of that era had been the reconstruction of destroyed Anatolian cities. The first legal arrangement which involved

³⁹⁸ Ibid.

³⁹⁹ Ibid.

⁴⁰⁰ Ruşen Keleş and Can Hamamcı, *Çevre Politikası*, İmge Yayınevi, Ankara, 2005, p. 11.

⁴⁰¹ Ibid

rulings about environment had been the Law No: 642 which was issued in 1925 and changed some articles of ‘Buildings Law’ of 1882.⁴⁰² Furthermore, since the foundation of the Republic, development and industrialization had a prominent importance in Turkey and environment had been considered as a contradictory issue against them, as it was in most parts of the World. This perception is still influential in Turkey, especially in industrial circles.

The 661st article of the Civil Code which came into force in 1926 was also one of the first legal arrangements somehow related to environment. In essence this article regulates neighborhood rights; it states that “in the use of property right one should refrain from behaviors that may cause damage to his/her neighbor and environment.”⁴⁰³ Following those legal arrangements, laws and regulations like Village Law (Köy Kanunu), Forest Law (Orman Kanunu), Fishery Products Law (Su Ürünleri Kanunu), Zoning Law (İmar Kanunu), Municipality Law (Belediye Kanunu), General Hygiene Law (Umumi Hıfzısıhha Kanunu) had involved direct or indirect rulings related to environment.⁴⁰⁴ Apparently, there were some laws concerning the environment but no legislation directly dealing with the environment.

Parallel to global developments environmental problems started to draw attention in Turkey since 1970s. Turkish Environmental Policies have been formed parallel to the international developments encouraged by the decisions made at ‘Stockholm United Nations Conference on Human Environment’ in 1972.⁴⁰⁵ Until 1970s different laws related to environmental protection are implemented by different ministries and institutions as the laws fall into their interest areas. In this term, State Planning Department, Turkey Institution of Scientific and Technical Research, Ministry of Energy and Natural Resources, Ministry of Agriculture, Ministry of Forestry can be counted as institutions responsible for implementation of environmental laws and regulations.⁴⁰⁶

The first independent environmental formation had been the ‘Committee for Coordination of Environmental Problems’, established in 1973.⁴⁰⁷ The mission of this committee was to coordinate the works on the solutions of environmental problems and especially cleaning the

⁴⁰² Recep Akdur, *Avrupa Birliği ve Türkiye’de Çevre Koruma Politikaları: Türkiye’nin Avrupa Birliğine Uyumunu*, Ankara: Ankara University Pub., 2005, p. 182.

⁴⁰³ Ibid.

⁴⁰⁴ Ibid.

⁴⁰⁵ Nuran Talu, *Avrupa Birliği Uyum Sürecinde Türkiye’de Çevre Politikaları*, Ankara: TMMOB Çevre Mühendisleri Odası Pub., 2006, p. 19.

⁴⁰⁶ Recep Akdur, Op. Cit, p.183

⁴⁰⁷ Çevre ve Orman Bakanlığı 2010 – 2014 Stratejik Planı, 2009, p. 2

air in Ankara, which was suffering from air pollution since early 1960s. In order to avoid disparity in authority and responsibility among different organizations and institutions the mentioned committee had been turned into ‘Environmental Coordination Committee’ in 1974.⁴⁰⁸ In terms of institutional progress, the next step had been the establishment of ‘Prime Ministry Environmental Organization’ in 1978 with the objective of determination of main policies, preparing plans and programs for protecting the environment, and coordination of ministries and other institutions in implementation of those policies.⁴⁰⁹ This organization was formed by three sub-organizations which were: ‘Environmental High Committee’, ‘Prime Ministry Undersecretariat of Environment’ and Commission of Technical Assessment’. The most important development of this term was the enforcement of ‘Environmental Law’ in 08.09.1983.

The Prime Ministry Environmental Organization had survived until 1984. In order to implement the Environmental law ‘General Directorate of Environment’ had been established in 1984.⁴¹⁰ In 1989 the ‘Special Environmental Protection Chairmanship’ had been founded with responsibility of preserving places which would be announced as the special environmental areas. Again in 1989, General Directorate of Environment was abolished and environmental organization had been again promoted to the level of Undersecretariat.⁴¹¹ In order to form a more efficient institutional formation in the field of environment, Undersecretariat of Environment had been re-formed as Ministry of Environment in 1991. Finally, in 2003, for building more institutional capacity Ministry of Environment has been merged with the Ministry of Forestry, and since then it is called as Ministry of Environment and Forestry.⁴¹²

2.2.2. The Regulative Field: Environment in Turkish Legal System

In Turkish legal system environment is dealt in private law field and under the framework of the Civil Code as well as in public law field in Constitutional Law, International Law, Administrative Judicial Law and Criminal Law.

⁴⁰⁸ Ibid.

⁴⁰⁹ Ibid., p.3

⁴¹⁰ Ibid.

⁴¹¹ Ibid., p.4

⁴¹² Nuran Talu, Op. Cit., p. 20.

2.2.2.1. Environment in Constitutions

Since the adoption of the last Constitution in 1982, there are clauses about “Environmental Right” and “Protection of Environment” as the rights of the individuals or tasks of States or individuals. Clauses about environment in the Constitution, which is hierarchically at the top of the legal system, indicate that environment is important for the State.⁴¹³ Additionally, as being a human right, the clauses about environment are binding. Moreover, Constitution has direct impact on jurisprudence, thus it influences the environmental law and legislation.⁴¹⁴ As it is going to be seen in coming sections, the 1982 Constitution stressed the right of living in ‘a healthy and balanced environment’ and especially emphasized industrialization in coordination with environmental protection.

A prominent example for the influence of the Constitution on environmental legislation is the issuing of Environment Code; especially the principles of Turkish Environmental Policy were inspired by the Environment clause of 1982 Constitution. Those principles were defined in the third article of Turkish Environment Code:

- a) Protection of environment and prevention of environmental pollution are duties of natural and legal persons and these are obliged to comply with measures taken and principles determined on this subject.
- b) Making short and long term assessments in making decisions and taking measures about protection of environment and environmental pollution; in protecting health of humans and other living beings; and considering positive and negative effects with costs and benefits of the measures on development efforts.
- c) The authorized organizations which make decisions on usage of land and sources and assessments of projects guard the objective of protecting environment and preventing pollution considering not affecting the efforts of development negatively.
- d) In economic actions and determining the production methods, the most convenient technologies and means are chosen and applied in order to prevent and limit the environmental problems.
- e) It is elemental that expenditures made for preventing and limiting of and struggling against pollution, are encountered by the polluter.
... However, polluters can avoid the obligation of paying the expenditures made for preventing and limiting pollution if they proof that they have taken all kinds of measures to prevent the pollution.
- f) ...
- g) Determination and implementation of measures taken for protecting environment and preventing pollution in coherence is essential.⁴¹⁵

⁴¹³ Gülün Egeli, *Avrupa Birliği ve Türkiye’de Çevre Politikaları*, Ankara, Türkiye Çevre Vakfı Pub., p. 75

⁴¹⁴ Engin Ural, *Muhtelif Anayasalarda Çevre Hükümleri*, Ankara, 1980, p. 1.

⁴¹⁵ Environment Code No. 2872, 09.08.1983 (before the 2006 amendment)

Here only the principles before the last amendment would be mentioned, since the change in the Code was made in order to comply with the EU's Environmental Policy and the issue of coming in line with the EU is subject of the next chapter and it will be dealt there. Here, the aim is to demonstrate how the principles of Turkish Environmental Policy were inspired by the Constitution. Especially, the first and last articles demonstrate the direct impact of the 1982 Constitution as stating who are responsible from environmental protection and the importance of protecting environment and preventing pollution.

The only clause directly related to protection of environment in the Constitution of 1961 is article 49 which assigns the State with 'providing living conditions for everybody to pursue their physical and mental healthiness'. If the effect of environmental problems on physical and mental health is taken into account, this principle can be seen as the starting point to establish a legal basis for the concepts of 'protecting the environment' and 'a clean environment'.

There were also clauses, article 130 and 131, respectively about protecting natural resources and protecting forestry, enlarging forestry fields⁴¹⁶ which, in turn, can also be considered as environment related issues in the Constitution of 1961. The lack of direct reference to environment can be seen as a result of conjuncture of the time. Even in developed countries the protection of environment was not in the agenda. Additionally, Turkey was not faced any serious environmental problems, only some minor problems caused by rapid urbanization which had been seen as the tolerable side effects of industrialization.

Constitution of 1982 accepts the right to an environment as a human right. In Article 56 of the Constitution regarding health, it is provided that everyone has the right to live in a healthy and stable environment. Article 56 states that:

Everyone has the right to live in a healthy, balanced environment.

It is the duty of the state and citizens to improve the natural environment, and to prevent environmental pollution.

To ensure that everyone leads their lives in conditions of physical and mental health and to secure cooperation in terms of human and material resources through economy and increased productivity, the state shall regulate central planning and functioning of the health services.

⁴¹⁶ Ibid., p.13

The state shall fulfill this task by utilizing and supervising the health and social assistance institutions, in both the public and private sectors.

In order to establish widespread health services general health insurance may be introduced by law.⁴¹⁷

According to this Article, it is one of the functions of the State to develop the environment, to protect environmental health and to prevent environmental pollution. This Article which is in the social and economical rights section of the Constitution imposes an important function to the State.

With the article 56, which for the first time deals directly with environmental right in a Turkish Constitution, environmental protection is evaluated as a Responsibility of the State, Responsibility of the Individual and Right of the Individual. Thus, a subjective right of individuals is recognized by the State.⁴¹⁸ However, the article does not mention the responsibilities of the State, any sanctions of violation of the clause and the right of application of the individual. Although, a “healthy and balanced” environment is mentioned in article 56, how the ideal environment should be or which factors are involved in environment was not mentioned. Thus, the legally protected area of environment was not defined constitutionally.

In addition to vague expressions in article 56, article 65 of 1982 Constitution provides restriction to the subject: “The State shall fulfill its duties as laid down in the Constitution in the social and economic fields within the capacity of its financial resources, taking into consideration the priorities appropriate with the aims of these duties.”⁴¹⁹

According to this Article, taking into consideration the continuance of economical stability and the sufficiency of financial resources the State has to fulfill its social and economical duties assigned to it by the Constitution.⁴²⁰ This means that the State is not obliged to fulfill all the functions which are found in this section of the Constitution. It will perform them only

417 Turkish Constitution of 1982, *Part Two* (Fundamental Rights and Duties), *Chapter Three* (Social and Economic Rights and Duties), *Clause 8* (Health, the environment and housing), *Subclause A* (Health services and conservation of the environment), *Article 56*

⁴¹⁸ Gülün Egeli, op. Cit. P. 76

⁴¹⁹ Turkish Constitution of 1982, *Part Two* (Fundamental Rights and Duties), *Chapter Three* (Social and Economic Rights and Duties), *Clause 8* (Health, the environment and housing), *Subclause A* (Health services and conservation of the environment), *Article 56*

⁴²⁰ *Ibid.*, p. 77

within the limits of its economical resources. While performing these duties it should consider economical stability. Considering the situation within an environmental framework, although a fundamental duty for the protection of environment is imposed on the State, an understanding of the environment as purified of all problems and inclusive of all positives should be eliminated.

Beside the articles directly dealing with environment, there are several clauses in 1982 Constitution which are related to environmental issues such as articles about public good, expropriation, protection of historical, natural and cultural assets, forestry, coastal areas etc. Although it is quite an improvement in Turkish Legal System, 1982 Constitution lacks integrity in environmental issues. A further improvement may be putting environment related clauses into a systematic order and provide them to be perceived as a part of the whole.

2.2.2.2. Turkish Environment Code

The clause on environment in the Constitution of 1982, the heavy air pollution at Ankara in 1980s and the intense initiatives of Environmental Foundation of Turkey can be seen as developments paving the way for the adoption of an ‘Environment Code’ in Turkey in 09.08.1983. Environment Code No. 2872 has been amended in 1986, 1987, 1988 and 2001. However main framework of the law was not changed. Lastly it is amended in 2006. The Environment Code will be assessed briefly in this section; especially the amendments made in 2006 will be dealt in the next chapter within the context of Europeanization of Turkish Environmental Legislation. However, in order to form an opinion about Turkish environmental legislation, some significant statements in the Code would be addressed in this section. For instance, by the last amendment the concept of “sustainability” took place in the objectives of the code.

Before the last amendment the objective of the Law No. 2872 was as follows (article 1):

...To protect, and improve the environment, which is a common property; to use properly the ground and the natural resources in the rural and urban areas; to prevent the water, ground and air pollution; to regulate the provisions and measures in harmony with the economical and social development goals, which shall improve and secure the health, civilization and life standards of generations of today and tomorrow by preserving country’s fauna and flora, and historical and natural wealth...⁴²¹

⁴²¹ Environment Code No. 2872, 09.08.1983 (before the 2006 amendment)

This article was criticized as being very human centric and putting “economical and social development goals” in front of the environment. The last amendment changed the article 1 as follows: “The objective of this code is to provide protection to the environment, which is the common property of all living beings, through the principles of sustainable environment and sustainable development.”⁴²²

In the Principles Section of the Code protecting the environment is declared as every citizen’s task. Another principle is that it is a necessity to consider the environment as a factor in the development activities. In other words, even Environment Code highlights the fact that development is an inevitable necessity and considers contradictory the principles of preventing the development and the protection of the environment. Another principle is the requirement to use the most suitable technological method in the investments for the purpose of protecting the environment. This brings the necessity of selecting the effective technologies in the public investments concerning the protection of the environment. Moreover another significant principal is “the polluter pays”. The related Article is as follows: “Whoever pollutes the environment is absolutely liable for the damages.... The liability of compensation is reserved”⁴²³

Parallel to these principles, the Environment Code provides prohibitions too. The most considerable one of these is polluting ban. It is forbidden to spill wastes and refuses to the surrounding environment.⁴²⁴ In other words, it is the principal of the legal responsibility of the one who pollutes. Furthermore another substantial authorization delivered by the Law is the one enabling to suspend industrial activities. However, maybe much more important than all these is the right which gives the public to appeal to the administrative and legal authorities to prevent pollution. Besides, this establishes the right to sue the administrative authority. Article is as follows: “The ones who have been aware of or adverted by activities that pollute and destroy the environment may appeal to the administrative authorities to prevent this activity.”⁴²⁵

⁴²² Environment Code No. 2872, 09.08.1983

⁴²³ Ibid.

⁴²⁴ Nuran Talu, Op. Cit., p. 24

⁴²⁵ Environment Code No. 2872, 09.08.1983

Thus, the ones who have been affected by the pollution or by similar incidences may require the termination of that activity by applying to the administrative authorities. This important and modern principle will increase the quality of environmental policy making. According to this, any person, company, group or community may necessitate the termination of the damaging activities by applying to the authorities due to the collective appeal right in the Code of Civil Procedure.⁴²⁶ If the relevant bureaucrat does not reply within 60 days, the application will be considered to be rejected, and therefore the right to sue will automatically be arisen.

One of the substantial ways that the Environment Code establishes is the authority to punish. It is possible to penalize people who did not comply with the prohibitions, import poisoned waste, make noise, and to fine the ships which pollute the sea. However, unfortunately, there are material contradictions, failure of the law, and dispute of authority in the institutional provisions regarding the utilization of this authority.⁴²⁷

Although the last amendment made some positive progress in the Environment Code, it is still a legislation based on restorer environmental protection model. In other words, most of the articles in the Code are designated for intervention after the pollution occurs. However, European Environmental Policy legislation is based on a preventive model which emphasizes the principles of taking pains, preventing, preventing at the source and polluter pays.

2.2.2.3. Other Regulative Measures about Environment

Turkish Civil Code contains some provisions somehow related to environment. Especially, two articles of this Code are crucial regarding environment. One of them Article 656 with the topic “responsibility of the owner” and the other is the notion of “right of the neighborhood” mentioned in Article 661.

Article 656 and 661 are as below:

“A person, who suffers or has the risk to suffer loss due to the violation of his right by an owner, may request the revival of his right or the measures to be taken to eliminate the risk and request the compensation of his damages and losses.”

⁴²⁶ Ibid.

⁴²⁷ Ibid., p.25

“A person has to abstain from all kinds of damaging overlapping activities particularly during all kinds of industrial work. It is particularly prohibited to cause excessive noise, tremors, fume, soot and disturbing dust, vapor and smell over the tolerable limits according to the place and quality of the place of the immovable property and according to the local custom.”

In the Civil Code practice the notion of neighborhood right which is used in environmental disagreements is fundamental. Regulations regarding the neighborhood right considered quite useful for the solution of environmental problems. Article 661, about the neighborhood right, provides that: “Everyone when using their properties and in particular during industrial works has to abstain from all kinds of overlapping activities”. This provision entails a very significant legal right for the purpose of the protection of the environment.

Such as, for the prevention of the damages caused by cement factories these provisions have been used frequently. There is an extensive series of decisions held by the Court of Appeals in this context.⁴²⁸

It can be observed that the main concern in the system is to solve the problems resulting from the mutual relations between individuals which may include environmental impacts as well.

Another significant Law is the General Health Code. In this Code, specifically in the Article which regulates the duties of the City and District Health Committees, the authority to control and to organize the general environmental health is given to the Committees.⁴²⁹

Other part of the Turkish environmental legislation will be the regulations, came into force following the Environment Code, which complements the environmental law. Some of them are listed as follow:

- *Regulation on Protecting Air Quality*

This regulation aims to reduce the emissions of soot, smoke, dust, gases, steam and aerosol. It limits the concentrations of pollutants in the flue gas. Power plants are required to take measure to reduce sulfur oxide concentration in flue gases limiting them to certain level, the

⁴²⁸ Firuz Demir Yaşamiş, “*Turkish Environmental Law: An Overview of Legal Principles*” in memoriam of Dr. Faruk Erem. Türkiye Barolar Birliği. Ankara. 1999, p. 892

⁴²⁹ 3359 numbered Health Services Principal Code, 15.05.1987

limit is set by the related regulation for all lignite fired power plants. Facilities that have been listed as unhealthy or harmful now require that permission to operate be granted by the Emission License System.⁴³⁰

- *Regulation on Water Pollution Control*

The Water Pollution Control Regulation was enacted in 1988; the purpose of the Water Pollution Control Regulation was to define the legal and technical principles regarding the protection of the national water resources potential. This regulation of preventing water pollution was enacted to ensure the use of water in the best possible way that would be harmonious with the socio-economic development efforts of the nation. The main priorities of the regulation are the prevention of the spread of water pollution over the country's surface, the protection of groundwater, the prevention of coastal and sea pollution, and the regeneration of polluted aquatic environments.⁴³¹

- *Regulation on Controlling Solid Wastes*

The Solid Waste Control Regulation came into force in order to manage solid waste. The regulation played a fundamental role in solid waste collection, storage, transport, and disposal. The regulation has been continuously updated.⁴³²

- *Regulation on Controlling Medical Wastes*

Turkey developed regulations for medical waste in 1993 and for hazardous waste in 1995. The Medical Waste Control Regulation established a basic action line for medical waste management based on the collection, storage, transport, and disposal or reuse of the waste by its owner. Some types of waste, such as radioactive wastes, were excluded from that law.⁴³³

430 Regulation on Air Quality Control OJ 19269 – 02.11.1986

431 Regulation on Water Pollution Control OJ 25687 - 31.12.2004

432 Regulation on Solid Waste Control OJ20814 – 14.03.1991

433 Regulation on Medical Wastes Control OJ 25883 – 22.07.2005

- *Regulation on Hazardous Waste Control*

The Hazardous Waste Control Regulation set the criteria for the collection, transport, and final disposal of hazardous waste, including options for land filling or incineration, as well as the design criteria and the operational rules for sanitary landfills and incinerators. The regulation also focuses on the minimization of hazardous waste and encouragement of recycling.⁴³⁴

- *Regulation on Controlling Noise*

The Noise Control Regulation which was issued in 1986 has been the first legislative arrangement concerning noise control in Turkey. This Regulation involved all noise control issues, such as: Source, receiver and the environment. According to the regulation:

It is forbidden to cause/make noise above the standard levels defined by the Regulation (regulation) which might disturb the physical and psychological health of people and their recreation. All the necessary measures have to be taken for minimizing the noise at factories, ateliers, offices, entertainment facilities, service buildings, dwellings and transportation vehicles.⁴³⁵

The regulations rule the fundamental principles and process of the administration of the environment in Turkey.

2.2.3. International Impacts on Environmental Policy in Turkey

International Law also has much importance from the Environmental Law point of view. As the World becomes global and since the environmental issues are beyond the borders, it is essential to deal with and regulate them among states and in the international arena. In this context, Turkey has carried out and approved a number of international agreements and has many commitments and responsibilities laid out in international agreements. Turkey, especially after the 1970s, increasingly has been a part of international environmental politics as a result of its being a party in international environmental movements and organizations.

434 Regulation on Hazardous Wastes Control OJ 25755 – 14.03.2005

435 Regulation on Noise OJ 25325 - 23.12.2003

Turkey's international legal obligations are determined by: multilateral agreements, protocols, declarations, action plans etc. signed and ratified by Turkey. Actually, according to the Turkish Constitution, the international environmental agreements and the protocols as the annexes of those agreements are tantamount to national law.⁴³⁶ In other words, if Turkish legislation contradicts with an international agreement, international agreement has a supremacy over local legislation.

Most of the international agreements which Turkey is a party are 'framework agreements'. In other words, the participant countries arrange annual or biannual meetings to produce resolutions, decisions or recommendations for implementation of these agreements. Besides, the legally binding nature of those measures is also mentioned in the agreements. Thus, Turkey's responsibilities are not limited only to convention or agreement articles but those responsibilities have to be evaluated also within the framework of decisions made in numerous intergovernmental meetings.

Subject to agreements beginning from 1970's, Turkey has been a party of 'Agreement of Protection of the World's Cultural and Natural Heritage' and accepted liabilities arising from this Agreement. Another example is 'Mediterranean Action Plan'.⁴³⁷ In 1975, some countries due to the belief that Mediterranean Sea was becoming a Dead Sea, decided to put into force a number of agreements led by the United Nations Environment Program. The most important one of these is 'Protocol for Protection of Mediterranean Sea against Land Base Pollution'. Countries, which are signatories to this Agreement, are liable to prevent land based pollution, which is transported by rivers to the Mediterranean Sea. The discharges transported by all the rivers to Mediterranean Sea are required to be decreased to a reasonable level.

'Agreement for the Control of Long-range and Trans Boundary Air Pollution' has also been signed. Furthermore Turkey is a party of 'Declaration of Environmental Resources for the Future'. There is another agreement put in force in Basel for Transportation and Storage of Hazardous Wastes in determined standards to which Turkey is also a party.⁴³⁸ In 1991,

⁴³⁶ According to article 90 of the Constitution: "International agreements duly put into effect bear the force of law. No appeal to the Constitutional Court shall be made with regard to these agreements, on the grounds that they are unconstitutional. In the case of a conflict between international agreements in the area of fundamental rights and freedoms duly put into effect and the domestic laws due to differences in provisions on the same matter, the provisions of international agreements shall prevail".

⁴³⁷ Recep Akdur, Op. Cit, p.191

⁴³⁸ Ibid.

member countries of the Black Sea Economic Committee, with Turkey's encouragement, signed an agreement for the purpose of the protection of Black Sea from pollution. In 1992 'The Environment and Development Conference', which is held in Rio de Janeiro, was the most important international environmental undertaking of the latest years. As a result of this conference five main agreements were put in force:

- the Convention on Climate Change,
- the Convention on Bio-diversity,
- the Rio Declaration,
- the Agenda 21 and
- the Protocol on Protection of the Forests.⁴³⁹

The first two of these conventions are important. 'Convention on Climate Change' imposes an obligation of indemnification⁴⁴⁰ against developed countries for the benefit of the developing countries because of the climate change caused by developed countries.⁴⁴¹ This is the first example of this kind of agreement and since Turkey being an OECD country, she has taken place in the developed countries category. Turkey has not ratified this agreement until recent years because she is considered as an indemnity⁴⁴² payer instead of being an indemnity receiver⁴⁴³.

Among some of the major agreements, approximately 50, to which Turkey is a party are⁴⁴⁴: 'Convention on Combating with Desertification', 'CITES-prohibiting the trade of endangered species', 'Ramsar-protection and administration of the wetlands', 'the Montreal Protocol on the Protection of Ozone Layer' and 'Bern Convention on the protection of the wild life and habitat'.⁴⁴⁵ Although she signed numerous international agreements about environmental protection; Turkey refrains to sign international environmental agreements that contain concrete objectives to prevent pollution or which she considers problematic for the national

⁴³⁹ United Nations Conference on Environment & Development Rio de Janeiro, Brazil, 3 to 14 June 1992

⁴⁴⁰ An act of compensation for actual loss or damage or for trouble and annoyance

⁴⁴¹ Ibid, p.192

⁴⁴² Security against damage, loss, or injury

⁴⁴³ Ibid.

⁴⁴⁴ For all agreements look: annex on International Environment Conventions to Which Turkey is a Party

⁴⁴⁵ Firuz Demir Yaşamiş, op.cit. p. 888.

interests of Turkey. The most important ones among them are:⁴⁴⁶ Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 1991), Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus, 1998), Stockholm Convention on Persistent Organic Pollutants (2001) and Convention on the Protection and Use of Transboundary Watercourses and International Lakes.

Analyses of national level implementation of each international environmental convention that Turkey signed necessitates a very comprehensive special consideration. Thus, almost all of the international conventions require a mechanism of monitoring. For instance, the number of legal arrangements, documents amending those arrangements, including declarations and action plans, is approximately fifty for the Mediterranean Action Plan which is the implementation plan of the Barcelona Convention.⁴⁴⁷ Another example is Ramsar Convention,⁴⁴⁸ which Turkey had been a part of it since 1994. Turkey is the richest country in Europe in terms of biological diversity with its more than 250 wetlands spread on more than 1 million hectare area.⁴⁴⁹ According to this convention Turkey determined 9 Ramsar areas and researches demonstrate that there are 56 wetlands which are in accord with international criteria and importance. Although, the Regulation on Protection of Wetlands was issued and some research projects and management plans about the wetlands are on their way, it is still very hard to say that Turkey's progress on protection and development of wetlands is sufficient.

In general, Turkey is following a national policy in which development is privileged, furthermore Turkey, with this understanding, could not integrate sustainability perception with development objectives. This position is a major concern for Turkey in complying with international environmental policies. In addition to above mentioned factors, environmental management in Turkey is not very well developed, especially in institutional, financial,

⁴⁴⁶ Nesrin Algan and Ayşe K. Dünder “*Türkiye'nin Çevre Konusunda Verdiği Sözler*”, TÜBA, Ankara, 2004, p.7

⁴⁴⁷ Nuran Talu, Op. Cit., p. 29. Moreover, fifteen intergovernmental meetings were made for the same convention and the assessments of the recommendations adopted in those meetings are also subject to a separate analysis.

⁴⁴⁸ The Ramsar Convention (The Convention on Wetlands of International Importance, especially as Waterfowl Habitat) is an international treaty for the conservation and sustainable utilization of wetlands, i.e., to stem the progressive encroachment on and loss of wetlands now and in the future, recognizing the fundamental ecological functions of wetlands and their economic, cultural, scientific, and recreational value. It is named after the town of Ramsar in Iran

⁴⁴⁹ Ibid., p. 30

technical and political terms. These create unease whether Turkey can carry out its responsibilities in both global and regional levels. The shortages on complying with international environmental responsibilities are also taken into consideration in the process of accession to the EU.

In the environment section of national program, it is clearly stated that; in order to comply with the commitments made in international environmental conventions, Turkey still has numerous infrastructural needs.⁴⁵⁰ Another important point in national program is Turkey's signature to several international environmental agreements will be taken into consideration in the process of accession to the EU. These are:⁴⁵¹ Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 1991), Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus, 1998), Stockholm Convention on Persistent Organic Pollutants (2001) and Convention on the Protection and Use of Transboundary Watercourses and International Lakes.

The international conventions about climate change have special significance for Turkey, especially within the framework of Turkey's adaptation process with the environmental policy of the EU. The law on 'Participation to the United Nations Framework Convention on Climate Change (UNFCCC)' is adopted in Turkish Parliament at 2003.

UNFCCC underlines the fact that warming of the Earth's surface is closely related with human activities which have been substantially increasing the greenhouse gas emissions since the industrial revolution. In order to achieve sustainable protection of the global climate for present and future generations, states need to establish effective environmental cooperation. The Convention therefore states that the widest cooperation is necessary to stabilize the Green House Gases⁴⁵² (GHG) emissions.⁴⁵³ Hence it calls all countries to be gathered under the same umbrella to realize shared but differentiated responsibilities.

⁴⁵⁰ Environment section of the National Program for the Adoption of the Acquis, 2008.

⁴⁵¹ Nesrin Algan and Ayşe K. Dündar, Op. Cit.

⁴⁵² The major GHGs responsible for causing climate change are: carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). The Kyoto Protocol also addresses groups of greenhouse gases such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF₆).

⁴⁵³ UNFCCC, 1992, United Nations Framework Convention on Climate Change, <http://unfccc.int/2860.php>

After the UNFCCC, Kyoto Protocol entered in to force in 2005 to cut the greenhouse gas emissions. It is clear that UNFCCC prepared the countries to make action climate change. Therefore by signature of the Kyoto Protocol most of the industrialized countries accepted to take concrete steps through climate change. So they decided to cut the emissions 5% compared the 1990 levels. Turkey has had a special position with regard to the international climate policy regime. As an OECD country, it was included in Annex I of the UNFCCC in 1992 and even in Annex II, which is the list of relatively advanced industrialized countries who have committed themselves to financial and technical transfers to developing countries.⁴⁵⁴ The main difference between Annex I and Annex II was that the countries with economies in transition in Central and Eastern Europe were included in Annex I, but not in Annex II. During the negotiations on the UNFCCC, Turkey rejected to be involved in both Annexes and it continued its abstention to the Annexes after the Convention had been adopted.

However, these objections were not taken into account and under these circumstances Turkey did not ratify the UNFCCC. For Turkey, its inclusion in Annexes I and II was problematic because the country's per capita GHG emissions were much lower than those in the EU and its economic profile too much different from the other Annex II countries to be able to commit itself to technology and financial transfers to developing countries.⁴⁵⁵ Eventually, Turkey requested the Conference of the Parties (COP) to recognize its special circumstances within Annex I. As a result, parties were invited "to recognize the special circumstances of Turkey, which place Turkey, ..., in a situation different from that of other Parties included in Annex I to the Convention" and which deleted Turkey from Annex II.⁴⁵⁶ Following that decision, Turkey officially announced that it would accede to the UNFCCC in 2003.⁴⁵⁷ The official accession took place on 24 May 2004.

Since Turkey did not sign the UNFCCC by the time the Kyoto Protocol was adopted in 1997, it was not involved in the Protocol's Annex B with countries that had adopted quantified emission limitation and reduction commitments⁴⁵⁸ (QELRCs).⁴⁵⁹ Turkey's situation is comparable to that of, among other Parties, Belarus, which is also included in UNFCCC

⁴⁵⁴ Ibid., article 4.

⁴⁵⁵ "Turkey Approaching the Kyoto Protocol?" *Joint Implementation Quarterly* July 2007, p. 2

⁴⁵⁶ Decision 26/CP.7 Amendment to the list in Annex II to the Convention

⁴⁵⁷ Law No.4990 in the Official Gazette on 16 October 2003

⁴⁵⁸ The QELRC for each country is expressed as a percentage (93% for the United States, 92% for the EU, 93% for Japan) that defines the average annual permitted emissions during the commitment period when compared with emissions during the base year 1990.

⁴⁵⁹ "Turkey Approaching the Kyoto Protocol?", p. 3

Annex I, but not in Annex B of the Kyoto Protocol. Experts within the country realized that this situation was complicated. In fact, should Turkey decide to ratify the Protocol, it could not host Clean Development Mechanism (CDM) projects,⁴⁶⁰ as these can only be hosted by non-Annex I Parties (*i.e.* developing countries). As an Annex I Party, Turkey could host Joint Implementation (JI) projects,⁴⁶¹ but that would require adoption of a QELRC for 2008-12.⁴⁶²

After all these developments Turkey ratified the Kyoto Protocol at 05.02.2009. Parliament's ratification comes after intense pressure from both the European Union and international environmental organizations. Three voted against as 243 lawmakers voted in favor of the protocol. Signing the Kyoto Protocol does not put an additional burden on Turkey until 2012. Turkey was not a party to the convention adopted in 1992 when the Kyoto Protocol was negotiated, and it is not currently included in the agreement's Annex-B, which includes 39 countries that are obliged to reduce their greenhouse emissions to 1990 levels between 2008 and 2012.

2.2.4. The Domestic Entities Which are Subject to Change: Environmental Institutions

Environment is a policy area that needs to be managed. It requires a detailed and extensive network of institutions for administration. Environmental management at national level can be defined as producing policies for protecting both natural and constructed environment and institution building for implementation of those policies.⁴⁶³ As a result of growth in environmental problems and increasing awareness on environmental issues, national institutions have been formed in Turkey to determine, develop, harmonize, monitor and control the activities about environment. The first one among them was the 'Permanent Consultancy Committee of Environmental Problems', which was formed in early 1970s. Later

⁴⁶⁰The Clean Development Mechanism (CDM) is an arrangement under the Kyoto Protocol allowing industrialized countries with a greenhouse gas reduction commitment (called Annex B countries) to invest in projects that reduce emissions in developing countries as an alternative to more expensive emission reductions in their own countries. A crucial feature of an approved CDM carbon project is that it has established that the planned reductions would not occur without the additional incentive provided by emission reductions credits, a concept known as "additionality".

⁴⁶¹The mechanism known as "joint implementation," defined in Article 6 of the Kyoto Protocol, allows a country with an emission reduction or limitation commitment under the Kyoto Protocol (Annex B Party) to earn emission reduction units (ERUs) from an emission-reduction or emission removal project in another Annex B Party, each equivalent to one tonne of CO₂, which can be counted towards meeting its Kyoto target.

⁴⁶² "Turkey Approaching the Kyoto Protocol?", p. 3

⁴⁶³ Halil Ünlü, "Yerel Yönetim ve Çevre", IULAEMME Publications, İstanbul, 1995, p. 27.

on, in 1978 an Under-Secretariat for Environment under the Prime Minister's Office had been formed which turned out to be a Directorate General of Environment in 1984. Afterwards, Directorate General of Environment, again, became Under-Secretariat for Environment in 1989.

Beside the governmental institutions, the Non-governmental organizations would also be dealt in this section. Non-governmental organizations (NGOs) in Turkey have gained importance in recent years. Mostly, the foundation of NGOs date back to 1960s. During the 1970s, NGOs were characterized by over politicized left- or right-wing extremist politics and ideological polarization.⁴⁶⁴ However, starting from the second half of the 1980s and especially in the 1990s, issue-based politics began to emerge, while ideologically oriented or revolutionary politics lost their strength.⁴⁶⁵ This process was accompanied by the rise of new political dynamics and involved the creation of new social movements of women, businessmen, engineers, and environmentalists.

2.2.4.1. Ministry of Environment and Forestry (MoEF)

The Ministry of Environment was established in 1991 and in 2003 merged with the Ministry of Forestry which has general duties relating to the protection and management of forests (some 20% of the land mass of Turkey). It also has important nature protection duties through its management of National Parks and enforcement of hunting rules.

Previously, MoEF had existed as an Under-Secretariat for Environment under the Prime Minister's Office. The MoEF has an overall coordinating role for the development and implementation of environmental policies in Turkey, including the approximation process for the EU environmental *acquis*. Thus the MoEF collaborates with other ministries, government agencies and other stakeholders.

The specific duties of the MoEF can be summarized as:

- Program and project development to determine principles of environmental protection
- Development of protection and use principles for appropriate urban and rural land-use
- Development of standards in co-operation with the Turkish Standards Institute
- Development of regional, city and physical plans, including the Designation of Ramsar sites

⁴⁶⁴ Çiğdem Adem, "Non-State Actors and Environmentalism" in Fikret Adaman and Murat Arsel (eds) *Environmentalism in Turkey Between Democracy and Development*, Burlington, Ashgate Publishing Company, 2005, p. 71.

⁴⁶⁵ Ibid.

- Conduct, approve and ensure the implementation of environmental plans taking economic and ecological values for decision making into consideration
- Establishment of laboratories for analyses, experiments, measurements and control
- Ensure the application of the EIA
- Allow for co-operation and co-ordination between public and private institutions
- Monitoring and control of activities which might have negative impacts on the environment.⁴⁶⁶

Also under the MoEF is the Authority for Protection of Special Areas (APSA). This Authority has special responsibilities for the 13 Special Protected Areas established for the protection of certain habitats and species.

MoEF has consultancy organs in three levels in order to provide public participation for environmental activities. These are:

- Council of Environment
- High Commission of Environment
- Local Commissions of Environment

The MoEF is the central institution about environment in Turkey. Besides its essential responsibilities of preserving and guarding the environment, it has also a crucial role in coordinating any action related environment or intervening actions that it thought to be related environment.

2.2.4.2. Other Ministries related to Environment

The Ministry of Health plays an important role in certain aspects of environmental protection through its responsibilities for public health. Prior to the establishment of the MoEF, it was the Ministry of Health that was in a large part responsible for environmental matters. In the water sector, it has particular responsibilities for drinking water quality and bathing water quality and certain responsibilities for urban waste water collection and treatment. The Ministry of Health issues permits to installations for air emissions and undertakes certain monitoring duties on air quality.

⁴⁶⁶ Çevre ve Orman Bakanlığı 2010 – 2014 Stratejik Planı, 2009, p. 9

The Ministry of Agriculture and Rural Affairs is responsible for land use and water resources development in rural areas. The Ministry monitors surface waters in agricultural areas for nitrate and pesticide run-off pollution. It has responsibilities for fisheries and aqua culture and for pesticide control, and will have some responsibilities for GMOs.

The Ministry of Public Works and Settlement has an important role in the development of municipal and regional land use plans. At the regional level, it can define areas for nature protection and establish their management rules. The Bank of Provinces, affiliated to the Ministry, has responsibilities for the planning, construction and financing of drinking water and urban waste water infrastructures in the smaller municipalities.

The Ministry of Energy and Natural Resources has two departments with special importance for environmental issues:

- General Directorate of State Hydraulic Works (DSI) is an old and well established department with responsibilities for water quantity, in particular irrigation and dams, drinking water supply and certain responsibilities for urban waste water facilities. It undertakes certain monitoring duties for surface and ground waters
- General Directorate of Electricity has responsibility for supplying the energy needs of Turkey, including hydro electric power stations and large combustion plants

The Ministry of Tourism can designate tourist areas and undertakes important implementation measures in these areas as regards drinking water, urban waste water and solid waste disposal.

The Ministry of Industry and Trade will have important responsibilities with the MoE in the implementation of the EU industrial pollution control sector, especially with regard to industrial pollution prevention and control.

The Ministry of Labor and Social Security has joint responsibility with the MoE for adopting and implementing legislation aimed at the prevention of industrial accidents at large installations.

The Ministry of Interior has responsibility for local government exercised through the provincial administration. The provincial governors are assigned by the Ministry and are in charge of all local government agencies.

The other institutions with major responsibilities for the environment are given below. The Prime Minister's Office has three departments directly associated with the approximation process and/or environmental protection:

- General Secretariat for EU Affairs is responsible for the co-ordination between the different governmental bodies for the convergence activities related to the NPAA
- Under Secretariat of the State Planning Office (SPO) prepares five-year national development plans and annual investment plans. Turkey is currently implementing its 9th Five Year Plan (2006-2013)
- Under Secretariat of Treasury has an important function relating to the funding of environmental projects through its access to international funds and loans, and acts as guarantor for such projects.⁴⁶⁷

The SPO, under the authority of the Prime Ministry, can make strategic choices in all areas of economic activity where public interest is a factor. It develops five-year national development plans, which are the main instruments for coordinating government policies. The State Planning Organization also allocates resources for public investment. Since the third five-year development plan (1973-1977), these plans include environmental management. The sixth development plan adopted the concept of sustainable development. As part of the seventh development plan (1996-2000), the institution coordinated and supervised the preparation of the National Environmental Action Plan (NEAP) in cooperation with the Ministry of Environment. The 9th Five Year Plan, covering 2006-2013, has gone into effect.

2.2.4.3. Other Governmental Organizations about Environment

There are several governmental organizations in Turkey either dealing with different aspects of environment or different areas that have effect on environment. The concept of environment by its nature is a multidimensional issue thus has to be subject to different

⁴⁶⁷ Recep Akdur, Op. Cit, p.184

organizations in different fields. These organizations other than the core institutions have also to be considered in order to fully grasp the Turkish institutional structure about environment. These organizations are: Directorate General of Forestry, Turkish State Meteorological Service, Environmental Protection Agency for Special Areas and The General Directorate of State Hydraulic Works.

Directorate General of Forestry

Forests are one of the most vital elements of natural environment and thus protection and development of forests are crucial for environment. Even though, the initial objective of foundation of Directorate General of Forestry was to economically exploit the forests, today it is an indispensable and effective institution for protecting and developing forests with its old and well rooted organization.

The first organization of forestry goes back to 1839, during the era of Ottoman Empire. The establishment of the first management planning team in 1916 and the preparation of the first management plan 1917 were in this period. The first Forest Law was also released in the same year.⁴⁶⁸ The development of the forest legislation accelerated after the establishment of the Republic of Turkey. The first forest decree of the Republic of Turkey adopted in 1924 (the Law about Scientific Management and Utilization of All Forests) concentrated on economic utilization from the forest resources and provisions for long term contracting forest management to large national and foreign companies.⁴⁶⁹

The Forest Law No. 3116 enacted in 1937 made the first legal definition of forest and introduced the first set of forest policies. The Forest Act had been subject to many amendments until the preparation of the new Forest Law (No 6831) in 1956. This Law has been under implementation since then, but again, with many amendments.⁴⁷⁰

For long years, all forestry activities were carried out by The General Directorate of Forestry (GDF). GDF has been ‘a public legal entity’ as an associated unit to various ministries but generally to the Ministry of Agriculture. Then the Ministry of Forestry was founded in 1970.

⁴⁶⁸ www.ogm.gov.tr/english/background.htm

⁴⁶⁹ Ibid.

⁴⁷⁰ Ibid.

Some of the functions of GDF, such as afforestation, nurseries, national parks, protected areas, wild-life and game, were taken to the responsibility of the Ministry of Forestry.⁴⁷¹ After a short interval of closure, the Ministry was re-founded again in 1991. Finally in 2003, it has been merged with the Ministry of Environment. GDF has been kept intact and connected, this time, to the MoEF.

Turkish State Meteorological Service

Meteorology services are important in environmental protection, especially in evaluating the air quality and consequently assisting in determining the measures which have to be taken in order to decrease air pollution to tolerable levels.

The Turkish State Meteorological Service, TSMS, was founded in 1937. It is the only legal organization which provides all meteorological information in Turkey. The main objectives of the TSMS are to provide forecasts, climatological data, archive data, meteorological needs of military and civil aviation and make observations. Furthermore TSMS has membership to the World Meteorological Organization and to three European organizations which are European Centre for Medium-Range Weather Forecasts, European Organization for the Exploitation of Meteorological Satellites and The Economic Interest Grouping of the National Meteorological Services of the European Economic Area.⁴⁷²

Environmental Protection Agency for Special Areas

EPASA was established on November 13, 1989 by the Decree Having the Force of Law (decision number: 383, published in Official Gazette no: 20341) pursuant to related protocol and to the article 9 of the Turkish Law of Environment no: 2872 which stipulated that the Cabinet of Ministers has the force of determining and declaring Special Environmental Protection Areas, aiming at making necessary regulations on environmental sites which possess ecological value, and which are threatened by environmental pollution and corruption; and also on taking the measures for passing natural beauties to further generations.⁴⁷³

⁴⁷¹ Ibid.

⁴⁷² www.meteor.gov.tr/de-DE/about.aspx

⁴⁷³ www.ockkb.gov.tr/EN/Icerik.ASP?ID=119

EPASA, which had been linked to the Prime ministry at the very outset, was linked to the Ministry of Environment which was established on August 21, 1991. EPASA was linked to the Ministry of Environment and Forestry after these two Ministries were being united on May 1, 2003. Environmental Protection Agency for Special Areas has been carrying its operations as a public institution, having a special budget.

The institution has the task of defining the principles for protection and use, to make land use plans, to revise the current land use plans of scales and plan decisions and approve them under judicial notice, considering the international protection conventions and environment legislation. Furthermore, it examines the plants that has been founded or to be founded by governmental institutions and organizations such as energy, irrigation, transportation, forest path and etc. and natural resources utilization plants and their auxiliary buildings in terms of their appropriateness to protection and utilization. The EPASA also protects the environmental values that Special Environmental Protection Areas possess and to take all the necessary measures to overcome the present problems, and improve the productivity of land, coast, river, lake and sea resources of Special Environmental Protection Areas and to make the necessary research and analysis for the reconstruction of the depleted stocks. It has the mission of contributing to the awareness of environmental protection in the community and to give environment protection training at all levels of the community in order to achieve permanent behavior changes and to carry out these activities in cooperation with other governmental institutions and organizations. One of the tasks of EPASA is taking all sorts of actions to protect these areas, to carry out researches and analyses or to have them carried out, to cooperate with all the unions related to all governmental institutions and organizations and with international organizations when necessary. Finally, EPASA has to prepare maps for the areas without maps or to have them prepared, project the infrastructure in Special Environmental Protection Areas and define the implementation control principles of land use plans and their revisions and to ensure the follow-up and coordination of the implementation.⁴⁷⁴

The General Directorate of State Hydraulic Works

In Turkey, which suffers from water scarcity, half of the wetlands have been either dried or they cannot perform their ecological functions due to extreme water consumption for

⁴⁷⁴ Ibid.

agriculture.⁴⁷⁵ In 1950s investments on industrialization accelerated population growth and development, especially in western regions of Turkey. However, when it was 1980s, due to the approach stressing “water supply” for urban and rural development programs based on water infrastructure projects, half of the fresh water sources of the Country have been lost. Consequently, water became limited in inner regions, polluted in western regions of Turkey.⁴⁷⁶ Limited or polluted water is not the problem in Turkey. This situation is the result of bad water management. The main problem is the lack of “national water policy” which would help in good water management. DSI would be the leading institution in forming and implementing such a policy.⁴⁷⁷

The General Directorate of State Hydraulic Works (DSI in Turkish acronym) with a legal entity and supplementary budget is the primary executive state agency of Turkey for its overall water resources planning, managing, execution and operation.⁴⁷⁸ The main objective of DSI is to develop all water and land resources in Turkey. It aims at all the wisest use of the principal natural resources. DSI was established by Law 6200 in December 18, 1953 as legal entity and brought under the aegis of the Ministry of Energy and Natural Resources. It is charged with "single and multiple utilization of surface and ground waters and prevention of soil erosion and flood damages". For that reason, DSI is empowered to plan, design, construct and operate dams, hydroelectric power plants, domestic water and irrigation schemes.

The DSI's purpose "to develop water and land resources in Turkey" covers a wide range of interrelated functions. These include irrigation, hydroelectric power generation; domestic and industrial water supplies for large cities; recreation and research on water-related planning, design and construction materials.⁴⁷⁹ Projects, master plan and feasibility reports are prepared for the development of water resources. In this respect, required main data are collected by DSI from the river basin surveys which are related with flow and meteorological, soil classification, agricultural economy, erosion, maps, geological conditions etc issues.

⁴⁷⁵ Teoman Meriç, “Su Kaynakları Yönetimi ve Türkiye”, *Jeoloji Mühendisleri Dergisi*, Vol. 28, No. 1, 2004, p. 30

⁴⁷⁶ Ibid.

⁴⁷⁷ Ibid., p. 34

⁴⁷⁸ www.dsi.gov.tr/english/about/goreve.htm

⁴⁷⁹ Ibid.

2.2.4.4. Special Units about Environment

The areas of competency of mainstream environmental institutions are clear cut drawn. However, the environment is unfortunately not a single dimensional and isolated issue. It is multidimensional and interrelated with numerous fields. In order to overcome this situation the Turkish State formed some special units about environment. These are: High Commission of Environment, Council of Environment and Local Committees of Environment.

High Commission of Environment

The Commission is headed by the minister of Environment and Forestry and it is formed by the undersecretaries of related ministries, heads of Higher Education Council, Religious Affairs, Scientific and Technical Research Council of Turkey, Turkish Atomic Energy Institution and trade associations.

The Commission's main tasks are to protect the environment and preventing pollution by taking international agreements into consideration, determine objectives for restoring of consumed stocks and to examine the measures that have to be taken. Additionally, the High Commission of Environment has the duty of setting out the principles for the type and place of the facilities which are planned to be built in special environmental protection areas and other principles which are going to be implemented in regions announced as special environmental protection area. Furthermore the commission has the functions of determining principles for environmental issues and making examinations and meetings on issues determined by the MoEF.⁴⁸⁰

Council of Environment

In the decree, which establishes the MoEF, it is stated that the minister will call meetings to form the Council of Environment for benefiting from the ideas, knowledge and experience of other ministries, industrialists, volunteer institutions, professional organizations and scientists.⁴⁸¹

⁴⁸⁰ Hasan Ertürk, "Çevre Bilimlerine Giriş", Bursa Uludağ Üniversitesi Güçlendirme Vakfı Publications, Bursa, 1996, p. 320

⁴⁸¹ Decree Having Force Of Law No: 443, article. 29, date: 21.08.1991

The Council of Environment regulation defines the Council as the highest organ of the MoEF. According to the regulation, the Council the objective of protecting and improving the environment, using and protecting both urban and rural areas and natural resources by means which are the most appropriate and efficient, protecting the country's fauna and flora and offering solutions for protecting and developing the natural richness of the country.⁴⁸²

Local Committees of Environment

The Local Committees of Environment are formed in all provinces by the chairmanship of the Governors with the participation of provincial representatives of ministries, mayor of metropolitan municipality, mayor, chairmen of industrial and agricultural chambers and representatives of MoEF. Secretariat services are carried out by Provincial Directorates of Environment.⁴⁸³

The Committee has the tasks of taking measures according to the decisions made by the ministry for improving and preventing pollution, monitoring, directing and coordinating the provincial activities of several ministries and organizations, examining and evaluating the reports of facilities and factories on pollution controls and taking measures if necessary, organizing education programs on environmental protection and determining environmental problems at the provincial level and offering solutions to the MoEF.⁴⁸⁴

2.2.4.5. Local Governmental Institutions

Provincial Directorates of the Ministry of Environment represent the Ministry at the local level. The main functions of the provincial directorates are: "to take measures in order to prevent and minimize pollution caused by land based polluters and to inspect any activity that might threaten the ecology and cause sea pollution; to control facilities approved by local authorities and their waste collection, refining and discharge systems according to the standards set by the Environmental Law and related regulations; to observe and control every activity within the local area that affects the environment and to start necessary processes to stop these activities and to inform the Ministry about the requests of the institutions; and to

⁴⁸² Ibid, p. 321

⁴⁸³ Kemal Görmez, *Çevre Sorunları ve Türkiye*, Gazi Kitabevi, Ankara, 1997, p. 116

⁴⁸⁴ Ibid, p. 117

carry out administrative tasks of the Ministry.”⁴⁸⁵ In other words, provincial directorates carry out all duties of the MoEF and enforce environmental law in local level.

Environmental protection foundations are established in every city where provincial directorates of the Ministry of Environment are available. They are established by the Ministry and headed by governors. They work much like local environmental funds. Their revenues are from paid services such as industrial emissions, vehicle exhaust emissions and noise level measurements.⁴⁸⁶ Local environmental projects are financed through the financial sources of these funds.

Municipalities are responsible for making general layout plans and to build large parks and green areas, specifying spots for the collection of household and industrial wastes and establishing facilities for their disposal, and conducting services such as water, sewerage natural gas and public transportation.

The Bank of Provinces supplies financing and credit as well as technical assistance in project preparation to the municipalities for infrastructure projects regarding sewerage and waste water treatment plants and, recently, solid waste disposal.⁴⁸⁷

2.2.4.6. Non – governmental Institutions

Environmental awareness in Turkey came largely as a reflection of global environmental movements. The global nature of the problem on the one hand, and the rapid acceleration of global communications on the other, has made possible an increasing level of solidarity and cooperation among environmental groups and movements worldwide.⁴⁸⁸ Turkish environmentalism has arisen within this context of global environmental consciousness. Similar to the environmental NGOs around the world, the Turkish environmental NGOs are also very active and sensitive in all environmental issues.

485 Kerem Okumuş, *Turkey’s Environment: A Review and Evaluation of Turkey’s Environment and its Stakeholders*, Published by: The Regional Environmental Center for Central and Eastern Europe, Szentendre, Hungary, 2002, p.26

⁴⁸⁶ Ibid, p. 27.

⁴⁸⁷ Ibid., p. 25

⁴⁸⁸ İbrahim Özdemir, “The Development of Environmental Consciousness in Modern Turkey” Richard Foltz (ed.), *Environmentalism in the Muslim World*, Boston: MIT Press, 2003, p. 8

Environmental protection activities mostly witnessed in the last decade have led to the development of many national and regional environmental non-governmental institutions in Turkey. The main national NGOs, which are actively involved in many environmental problems in order to create public awareness consciousness and to encourage public participation, aim to propose efficient solutions providing a basis as a pressure group on the decision-making process.

Initially, environmental initiatives tended to be protective and reactionary rather than based on any sort of systematic worldview. These initiatives were either against something conceived to be a threat to the environment, or for the protection of specific natural sites. Turkish environmentalists, for example, opposed thermal power plants at Gökova (1986), Aliğa (1989), and Yatağan (1989), and a nuclear power plant at Akkuyu (1993).⁴⁸⁹

Actions for the preservation of two relatively small parks in downtown Ankara, Zafer Park in 1986 and Güvenpark in 1987, which inhabitants of the capital regarded as the lungs of the city, were protective in nature. Activists opposed any urban development policies that would reduce the city park system, arguing that if Ankara was to be the symbol of modern Turkey then it must contain green sites as well.⁴⁹⁰ The two parks were saved with the activities of environmentalists, who proved able to inform the public about their rights and raise their voices to protect their parks and their city.

The UN Habitat II Conference started the main Turkish NGO movement and it was a turning point for civil society initiatives in Turkey, which was held in 1996 with the participation of 15,000 people from 165 different countries. Habitat II was the culmination of the previous conferences of the last decade: the women's conference in Beijing, the Earth Summit Conference in Rio, the Children's Summit in New York City, the Social Summit in Copenhagen, and the Population Conference in Cairo.⁴⁹¹ This was the first civil society initiative in Turkey that convened NGOs, the business community and community based organizations at the same platform.

⁴⁸⁹ Ibid.

⁴⁹⁰ Ibid. p.27

⁴⁹¹ Çiğdem Adem, Op. Cit., p. 79.

Turkish NGO involvement in the Conference was also facilitated through logistical and financial assistance of UNDP. Support was also provided to various NGOs active in the field of human settlements in realizing project proposals that tackled problems ranging from the rehabilitation of squatter settlements to the preparation of a Turkish NGO data bank.

The devastating earthquakes of August 17, 1999 and November 12, 1999 in Turkey also reinforced the development of the consciousness of civil society and changed the understanding of civil initiatives. The citizens who united in the rebuilding after the earthquakes have maintained the cooperative and constructive civic spirit.

In recent years there have been increases in the number of NGOs such as foundations, associations and citizens' initiatives engaged in subjects such as science, technology, research, democracy, environmental protection, etc. In 1967, the Council of Ministers was given the authority to grant tax exemptions to the foundations, and the donations made to the foundations were encouraged with various incentives in the tax laws. The number of foundations, which was only 72 in the period between 1926 and 1967, reached 4,534 as of May 2000.⁴⁹² Today, the number of associations is around 72,800.⁴⁹³ Membership dues and donations form a significant portion of the financial resources of the associations, in addition to revenues collected from publications, lotteries, exhibitions, etc. The donations made to the associations are subject to tax.

The Council of Ministers can grant an association the status of 'Association Beneficial for the Public' to allow tax exemptions and receipt of financial assistance from the state. Associations are more dependent on the government than foundations, because the Ministry of Interior controls the associations.

Since the Ottomans, the Turkish state has looked tolerantly on foundations.⁴⁹⁴ The popularity of establishing a foundation in Turkey is a result of this historical driving force, despite the fact that establishing a foundation is hampered by financial limitations. However, associations have considerable legal limitations starting from the establishment procedures, which include limitations on membership depending on the permission of government bodies for students,

⁴⁹² İbrahim Özdemir, *op.cit.*, p.28.

⁴⁹³ *Ibid.*

⁴⁹⁴ Bernard Lewis, *The Emergence of Modern Turkey*, Oxford University Press, New York, 2002, p. 83.

soldiers, civil servants, academics, etc. The cooperation of associations with international agencies and other countries, as well as with other organizations such as syndicates, political parties and Professional chambers are also limited by legal restrictions. Grants to associations and membership fees are strictly controlled and limited by law.

In general, civil society in Turkey lacks professionalism. The constantly evolving NGO sector in the world is one that has developed into a sector that creates employment and affects GNP. For example, more than 4 percent of the national income in Germany is derived from this sector.⁴⁹⁵ In Turkey, employment and a full-time approach are still lacking. As a result, organizing and establishing at the grassroots level are extremely difficult. Operations of NGOs are not widespread and clear-cut, since, firstly most NGOs are organized somewhat around the larger cities in Turkey, leaving out a vast majority of Anatolia and secondly, there is a lack of focus in the NGO sector as the approach is general, not issue based with clear missions and goals.⁴⁹⁶ There is, therefore, a lack of consistency, and the motivation behind actions tends to be tied to political scandals or earthquakes.

There are many associations and foundations in Turkey, with a majority of them lacking a clear mission. Thirdly, the almost entirely short-sighted attitude that has evolved in Turkey creates a tremendous barrier for an NGO to succeed.⁴⁹⁷ The fourth factor undermining NGOs is the shortage of financial resources and the cultural obstacles for fund-raising. NGOs, which are for the most part deal with the priorities of the day, tend to have problems even collecting their membership fees.⁴⁹⁸ Fund-raising is a concept that does not exist in Turkish NGO culture and individuals consider it shameful to ask for money. The fifth factor hindering NGOs is the lack of international relations and cooperation, an obstacle to keeping pace with international standards and to raising project funds, as most NGOs in Turkey do not know how to solicit international project funds or even whom to ask.⁴⁹⁹

The main national NGOs of Turkey representing civil society in the environmental field are listed below in alphabetical order:

⁴⁹⁵ Meral Dinçer, “Çevre Gönüllü Kuruluşları”, published by Türkiye Çevre Vakfı, Ankara, 1996, p. 96

⁴⁹⁶ Ibid., p. 97

⁴⁹⁷ Ibid.

⁴⁹⁸ Ibid., p. 98

⁴⁹⁹ Ibid, p. 99

‘The Environment and Culture Agencies Cooperation Association’ aims to create a society that cooperates with associations that are sensitive to the environment and culture and have an understanding of ethics and an ideal of living in a clean environment. In addition, it aims at restoring the social and ecological balance that has been disrupted by natural disasters and accidents.⁵⁰⁰

‘The Environment Foundation of Turkey’ was established in 1978. The Foundation promotes the environment through research, publication of books, newsletters, brochures and other information media, and emphasizes creating public awareness. The Environment Foundation of Turkey has been a member of the UNEP National Committee since May 1992.⁵⁰¹

‘The Association of Physicians for the Environment of Turkey’ was founded in 1998. The Association aims to organize those doctors sensitive to ecology, to investigate health problems stemming from environmental hazards and the deterioration of ecological equilibrium. They conduct scientific studies regarding the environment and health of ecosystems and create an archive of information for the community. In addition, the association provides medical and scientific consultation and participates in educational activities.⁵⁰²

‘The Society for the Protection of Nature’ was founded in 1975. The society Works for the conservation of biological diversity and natural resources, encourages sustainable use of natural resources, increases public awareness of nature conservation, carries out projects aimed at protecting significant and threatened ecosystems and lobbies official institutions and agencies in support of these goals. It has 12,000 supporting members. The Society is an associate member of the World Wide Fund for Nature, Bird Life Partner of Turkey.⁵⁰³

‘The Turkish Foundation for Combating Soil Erosion for Reforestation and Protection of Natural Habitats’ was founded in 1992. The chief aim of the foundation is to raise public awareness of several environmental issues posing great danger to Turkey’s future. Land erosion, deforestation, loss of farmland productivity, and threats to biodiversity are their main concerns. TEMA develops and carries out model projects in rural development, rangeland

500 www.cekud.org/site/page.asp?dsy_id=1328

501 www.cevre.org.tr

502 www.rec.org/REC/Programs/ExtensionToTurkey/TurkeysEnvironment.pdf

503 www.dhkd.org

rehabilitation, and reforestation. TEMA currently has 50,000 members and 288 volunteer representatives throughout the country. Institutions and companies have been invited to join as special members with donations ranging from USD 2,000 to USD 88,000. The 1998 budget was USD 2.5 million.⁵⁰⁴

‘The Turkish Marine Environment Protection Association’ was founded in 1994. The objective of the Association is the protection of marine pollution.⁵⁰⁵

Other national environmental NGOs are:

- Association for the Protection of Consumers and the Environment, (1990)
- Blue Marmara Association to Save Marmara (1991)
- Clean Energy Foundation, (1994)
- Environment Protection and Research Foundation, (1991)
- Environmental Education Foundation of Turkey, (1993)
- Environmental Protection and Greening Council of Turkey, (1972)
- Environmental Technology Applicators’ Association, (1991)⁵⁰⁶

2.2.4.7. Political Organization about Environment: The Turkish Green Party

The Turkish Green Party was founded in 1988. The Turkish Greens were influenced by the Green movements of the West, especially of Europe. The Greens differentiate themselves from other environmental groups, whom they accuse of collaborating with the state.⁵⁰⁷

Moreover, they rejected the Western concepts of the Enlightenment and modernity—that is, the theory of linear development, Western cultural and educational norms, and so on education—which had been accepted by many modernist Turks. As the Greens consider the environmental degradation to be a direct product of the Enlightenment, they seek to envision a new worldview which is more holistic and humane.⁵⁰⁸

The Green Party was founded by members of a variety of marginal groups, such as feminists, atheists, homosexuals, lesbians, anti-militarists, and others, which made the majority of Turks

504 www.english.tema.org.tr

505 www.turmepa.org.tr

506 Kerem Okumuş, Op. Cit, p. 29

507 İbrahim Özdemir, Op.Cit., p. 9

508 Ibid.

suspicious about their real aims. Many believed that these groups were using environmentalism as a way of legitimizing themselves. Even the Turkish Foundation for Environmental Protection, a leading environmentalist society, declared their suspicions about the Green Party and its founders. However, one positive aspect of the Green Party cannot be ignored: it allowed other mainstream parties to develop their own positions and policies about environment.⁵⁰⁹

The Party was disbanded in 1994 because of legal formalities. State officials argued that it had not followed legal procedures.⁵¹⁰ However, the Green Party has been re-established in 30 June 2008, with the application of a group of 40 founders. The new Green Party announced as a democratic political party fighting for a sustainable life, to establish an ecological and pluralist society, and it's against violence.

2.2.4.8. Private Sector

The private sector is a key environmental actor, as its enterprises generally perform better than parastatals, treating almost twice as much of their wastewater and spending less than half as much for final disposal. Parastatals generate more than half the industrial solid waste, and industrial discharges. This implies that accelerated privatization of state enterprises, combined with appropriate environmental safeguards and requirements could reduce industrial pollution. As private enterprises also provide environmental goods and services, they maintain expertise and supply equipment for wastewater treatment, water purification, solid waste management, air pollution control, and Environmental Impact Assessments. Some manufacturers are seeking to comply with international standards of good environmental practice.

2.2.5. Administrative Tools

The producing and implementation of environmental policies in Turkey are come through by several tools. These are overwhelmingly administrative ones and originating mostly from government in Turkey. They deal with different aspects of environment and unrelated organizations are responsible for handling of the tools, which causes inconsistency in

⁵⁰⁹ Ibid.

⁵¹⁰ Ibid.

implementation. These tools are: plans, environmental impact assessments, environmental information, research and development, environmental education, economic and financial instruments and financial mechanisms.

2.2.5.1. Plans

Plans are a key feature in Turkey's command-and-control style of environmental administration. These include:

Urban development plans

Two types are required for all municipalities: (a) structure plans, which are 1/5,000 scale maps along with detailed reports indicating patterns of land use, types of zones, projected population densities, building densities, growth directions, magnitudes of settlement zones, and transport systems; and (b) implementation plans, which are 1/1,000 scale maps that indicate buildings in various zones, their densities and order, roads, and stages for providing urban services. The plans can be designed by municipalities or assigned to the Bank of Provinces or private firms; they become effective after city councils approve them;

Territorial and Environmental Plans

Introduced in the 1960s, territorial plans are expected to guide land use and settlement decisions, especially with regard to housing, industry, agriculture, tourism, and transport. In general, they are developed and approved by the Ministry of Public Works and Settlements. More recently, 18 regional environmental plans were introduced, produced by the MoE; it is supposed to ensure that natural resources are used in ways that sustain development. Both territorial and environmental plans are 1/25,000 scale; and

Other Plans

Various other plans are produced by 22 agencies and organizations under various laws. These include: (a) regional plans (prepared by the State Planning Organization or assigned to others); (b) forest management plans (prepared by the General Directorate of Forestry); (c) 'Long-term Development' and 'Local Development' plans prepared by the General

Directorate of National Parks, Game and Wildlife to manage national parks; (d) master plans, to direct sectoral activities such as tourism, transportation and energy; (e) management plans for specially protected areas; and (f) forest village development plans prepared and implemented scale by the General Directorate of Forest-Village Relations.

2.2.5.2. Environmental Impact Assessment (EIA)

The EIA Regulation, drafted by the MoE and enacted in 1993, was based on US and EU procedures. These assessments are required for a wide range of economic activities, including major infrastructure projects, large housing developments, energy installations, various factories (e.g., cement, fertilizer, sugar, tobacco and rubber), and tanneries.⁵¹¹ Also, they are required for activities in areas protected under national legislation or international conventions, as well as for sensitive locales such as agricultural land, wetlands, lakes, and ecosystems rich in biodiversity. These reports must be prepared during the planning phase for an investment, since the activity can only be approved, authorized or licensed to proceed after an ‘EIA Positive Certificate’ is issued. Public comment on the draft report is obtained through the LEC. The MoEF is responsible for monitoring the process and issuing permits after all applicants’ requirements are met. Unfortunately, in June 1997, the EIA process was weakened, since the requirement to assess projects planned for sensitive zones was abolished and public participation was limited.⁵¹² Supplemental EIA procedures can also exist such as those used by the Istanbul Water and Sewerage Company for water catchments.

2.2.5.3. Environmental Information

Various governmental organizations, universities and professional organizations (chambers of industry and commerce, engineers and architects, and physicians), and local governments produce environmental information. However, the scope of the data varies, as does the way it is applied and the techniques adopted to collect and assess the data. The following information is regularly collected:

Air Pollution Statistics: The Refik Saydam Hygiene Center, under the Ministry of Health, monitors particulate matter and sulfur dioxide concentrations in many cities. State Institute of Statistics (SIS) publishes monthly bulletins on air quality, along with multi-year reports;

⁵¹¹ Kerem Okumuş, Op. Cit, p. 32

⁵¹² Ibid.

Water Statistics: The DSI routinely monitors water quality. Monitoring began in 1979 with 65 sampling points, and by 1994, the sampling point had grown to 1,080. State Institute of Statistics (SIS) is now centralizing this and other data in a geographical information system to assess water quality by basin;

Marine Data: The Navy's National Oceanographic Data Center collects and disseminates data related to the marine environment;

Forest Inventories: The Ministry of Forestry regularly processes inventories and statistical data on the state of Turkey's forests;

Climate Statistics: Meteorological data are collected each day by the General Directorate of Meteorology;

Solid Waste Inventories: Since 1991, SIS has prepared a municipal solid waste inventory, surveys on household garbage, commercial garbage, and a hospital waste inventory;

Industrial Waste Inventories: Since 1992, SIS has completed two surveys on manufacturing waste, three on power plant waste, and two on mining waste; and

Municipal Environment Inventory: Surveys were conducted in 1995 and 1996 by SIS on municipal drinking water, sewerage and solid waste services, and environmental employment and expenditures.⁵¹³

2.2.5.4. Research and Development (R&D)

Environment-related R&D is conducted or supported by universities, various scientific and technical institutes and centers, the Technology Development Foundation of Turkey, state ministries, the State Planning Organization and State Institute of Statistics, special public organizations such as the Administration for the Development of Small and Medium-Scale Industrial Enterprises, the Turkish Institute of Standards and the National Productivity Center, parastatals, the private sector, trade unions, and Professional and voluntary organizations.⁵¹⁴ The Scientific & Technical Research Institute of Turkey has produced small inventories of environmental R&D conducted by various organizations and units. However, these need to be updated and their outcomes/practical applications need to be monitored as it is difficult to analyze the use of this research or apply an adequate cost-benefit analysis. It is equally difficult to develop policies and strategies for improving environment-related R&D.

⁵¹³ Ibid.

⁵¹⁴ Ibid.

2.2.5.5. Environmental Education

Environmental education is provided in formal pre-schools, primary/middle/high schools, and in special programs. Further, programs related to the environment are offered in at least 21 Turkish universities, and courses such as ecology, environmental law and policies are offered at the undergraduate and postgraduate levels. In addition, university groups and clubs focus on the environment and nature. Non-formal education programs, which attract about one million people a year, also include some form of environmental education and training. They involve subjects such as nutrition, health, child care, environmental care and cleanliness, and the impact of the environment on the spread of diseases.

2.2.5.6. Economic and Financial Instruments

Only a few economic measures have been adopted to manage the environment. Although some taxes exist on goods and services that affect the environment, such as the gasoline consumption tax, marine vessel fees, or electricity and coal consumption taxes. These taxes generally support the operating budgets of governmental organizations and do not alter significantly the behavior of consumers. However, part of the tax on motor vehicle sales, automobile sales, and airplane tickets is earmarked for environmental purposes. Also, a deposit refund scheme exists for beverage containers and a buy-back program for vehicle batteries.

For their part, pricing policies for agriculture and energy resources have a substantial impact. Outputs were subsidized through: (a) Government fixed price purchase of nine commodities and (b) soft loans to agricultural cooperatives to purchase products at guaranteed prices.⁵¹⁵ The problem is that these instruments are conducive to the depletion of soil resources, excessive use of inputs and exploitation of marginal lands. The private sector has been given incentives to invest in the environment. The Council of Ministers approved full exemptions from customs duties for imported R&D materials and equipment.

⁵¹⁵ National Environmental Action of Turkey, Ankara, 1999, p. 28

2.2.5.7. Financing Mechanisms

Public sector investment for environmental was directed to agriculture, mining, manufacturing, energy, transportation, tourism, housing, education, health, and other public services and infrastructure projects. Various funding sources exist to finance such environmental activities. These include (a) allocations from the general budget, (b) funds created within or outside the budget, (c) taxes collected on polluting goods and services, (d) fines and charges, (e) domestic funds to prevent and manage environmental problems, (f) credit and grants from international organizations, and (h) revenues from existing facilities. According to the Budget Law, environment-related investments can be financed from 20 funds in the general budget.⁵¹⁶ The 20 include funds for environmental pollution prevention, disasters, afforestation, ORKÖY (forest villages), municipalities, earthquakes, special provincial administrations, national parks, special environmental protection, special settlements, reform, support to and development of mass housing, upgrading of traffic services, development of tourism, local administrations, support to and improvement of health services, credit for new settlements, housing for people in backward areas, relief to farmers suffering natural disasters.⁵¹⁷

The Environmental Pollution Prevention Fund, capitalized in 1991, had revenues of US\$346 million by 2006. These were generated from motor vehicle inspection fees (20% share), auto sales taxes (25% share), airplane tickets (0.5% of the price), air and sea cargo taxes, and transfers.⁵¹⁸ During the same period, \$184 million was disbursed for 182 projects on reforestation, sewerage and drainage, stream rehabilitation, and geothermal energy development. The Fund also supports research and training, protection of biodiversity and environmental clean-up. Fund revenues are directly transferred to the consolidated budget and 5 % of collected revenues are reallocated to the Fund for management by MoEF.⁵¹⁹ The Minister has the authority to approve the disbursements from the Fund.

Municipal revenues, especially of metropolitan governments, are obtained from diverse sources. In addition to receiving 25% of total collected State revenue, municipalities accrue

⁵¹⁶ National Environmental Action of Turkey, Ankara, 1999, p. 21.

⁵¹⁷ Ibid.

⁵¹⁸ Ibid.

⁵¹⁹ Ibid.

revenues from local taxes and fees that cities have collected since 1985.⁵²⁰ Sources are: (a) taxes on property and land, well water, electricity and coal gas consumption; and (b) fees from businesses that remain open on holidays, animal check-ups and slaughtering, inspections for measuring and weighing devices, and construction. Water consumption and wastewater fees are often used for solid waste management, water treatment and supply, sewerage and sewage treatment, parks and recreation, and noise control.⁵²¹

The Bank of Provinces (İller Bank), a public entity, gives grants and credit to municipalities, makes advance payments, serves as a loan guarantor, and helps fund technical assistance and implementation plans. Its loans finance waste management as well as environmental infrastructure such as water treatment facilities, drinking water supplies and waste water treatment plants.⁵²² In the ‘Structural Adjustment Project for Local Governments’ reforms are proposed to restructure İller Bank so it becomes more of an investment bank.

Aside from İller Bank, municipalities can borrow with central government guarantees from external sources for their larger projects. At the central level, Turkey can secure resources from international and national organizations and institutions, and can borrow from international capital markets. These include the World Bank, United Nations, European Community (i.e. European Social Fund, European Regional Development Fund, Agricultural Orientation and Guarantee Fund), European Investment Bank, the METAP Fund (supported by UNDP, EU, EIB, and the World Bank), Islamic Development Bank, and Kuwait Development Fund.⁵²³

2.2.6. Observing the Patterns of Institutional Change Through the Perceptions of Governments: Environment in Government Programs since 1980s

Since the declaration of the Republic, sixty governments have been formed in Turkey. Each of them informed the society about their plans and priorities by a government program which they read before the Turkish Parliament. There are two main reasons why this analysis starts from 1980s. The first one is global; the environmental movements emerged in 1970s, both at governmental or nongovernmental level, entailed a consciousness on environmental issues

⁵²⁰ Ibid, p. 34

⁵²¹ Ibid.

⁵²² Ibid

⁵²³ Ibid.

which had an impact on political ideas in several countries. The second one is local; the negative consequences of rapid urbanization and industrialization of 1960s and 1970s became more concrete in 1980s, especially the air pollution in Ankara and water and air pollution in the densely industrialized regions.

Analyses of those programs help the researcher to control if the governments keep their promises and follow the alteration of understandings between different governments on specific issues within a period of time. In this study, government programs would be analyzed to understand views of different governments on environmental policy and to follow the change in perception of environment in years. Furthermore, these programs would be a source of reference for following chapters of the study where Europeanization of Turkish environmental policy is analyzed.

Environment in 45th Government Program (Prime Minister Turgut Özal - 13.12.1983-21.12.1987): This government was a single party government and headed by Turgut Özal which remained in power between 13.12.1983 and 21.12.1987. The ruling Motherland Party (ANAP), was a socially conservative but economically liberal party which is quite common in the tradition of Right wing politics in Turkey.

In their program, it is stated that “measures necessary to improve environmental conditions would be taken” when mentioning about health services. Following that, air pollution and possible solutions of air pollution is mentioned. On the issue of industrial pollution it is articulated that: “It would be harder to solve the problems where water pollution is intense like Marmara Sea, Golden Horn, bays of İzmit and İzmir if immediate actions are not taken. Existing industrial facilities would be obliged to comply with liquidation procedures”⁵²⁴

As it can be observed in this program environmental problems were limited only to industrial pollution. Especially, pollution in industrialized regions was a major concern. However, the environmental consciousness of the time was, as it is reflected by the program, limited to the understanding of removing the pollution.

⁵²⁴ 45th Government Program of Republic of Turkey. Web: <http://www.tbmm.gov.tr/hukumetler/hp45.htm>

Environment in 46th Government Program (Prime Minister Turgut Özal - 21.12.1987-09.11.1989): This government was also formed by Turgut Özal after he was reelected in the elections of 1987. This was again a single party government of Motherland Party.

It is stated in this program that “protecting environment and nature is an issue which our government gives utmost importance.”⁵²⁵ There was no remarkable progress in this program compared to previous one; only industrial pollution is not limited to Marmara Sea, Golden Horn and bays of İzmit and İzmir. Instead a general term preferred: “Measures would be taken to ensure the establishment of new industrial plants that are not polluting the environment and building of refinement facilities for plants still polluting the environment in a certain period of time.”⁵²⁶ This plan stresses the concept of clean technologies in industry. Different from the previous one the understanding of preventive action took place in this program.

Environment in 47th Government Program (Prime Minister Yıldırım Akbulut - 09.11.1989-23.06.1991): After Turgut Özal elected as President by the parliament Yıldırım Akbulut was charged with forming of the government. It was a single party government but an interim one until the coming Party Congress.

It is stated in the program that “protecting environment and nature is an issue which our government gives utmost importance. A constant economic development should be provided by protecting natural, physical and social environment. Protecting ecological assets and economic development are integral to each other.”⁵²⁷ This program reflects an approach in which environment and development are interconnected.

It is said that “In order to decrease the effects of air and water pollution brought by urbanization and industrialization, high quality fuel would be used and industrial wastes would be refined. Therefore, high quality coal import for urban areas has begun and natural gas projects are prepared for some metropolitan areas.”⁵²⁸

⁵²⁵ 46th Government Program of Republic of Turkey. Web: <http://www.tbmm.gov.tr/hukumetler/hp46.htm>

⁵²⁶ Ibid.

⁵²⁷ 47th Government Program of Republic of Turkey. Web: <http://www.tbmm.gov.tr/hukumetler/hp47.htm>

⁵²⁸ Ibid.

Same as in the previous program, it is declared that, “Measures would be taken to ensure the establishment of new industrial plants in a way that will not pollute the environment and building of refinement facilities for plants still polluting the environment in a certain period of time.”⁵²⁹

For the first time sustainable development was implied in a government program, moreover this program suggested some concrete actions for preventing pollution.

Environment in 48th Government Program (Prime Minister Mesut Yılmaz - 23.06.1991-20.11.1991): Mesut Yılmaz was elected as the head of the Motherland Party in the Congress of 1991 and consequently charged with formation of a new government. However, the governing term was quite short; it had just lasted five months.

Constant and balanced development is mentioned by asserting “Protecting and improving natural, cultural and social environment is one of the basic principles of our government. Protecting ecological assets and economic development would be considered as a whole and in accordance with the objective of constant and balanced development; measures would be taken in legal, administrative and technical fields.”⁵³⁰

“Parallel to 5 year development plans, priorities would be ranked by determining environmental situations.”

Support of environmental friendly technologies for the industry is asserted as: “Legal measures would be taken for providing credits with low interest rates to either existing or newly founding plants for building refinement facilities in order to prevent pollution created by industrial development and take preventive action to stop pollution at its source. Technologic systems which do not pollute and harm physical and biological structure of the environment would be promoted.”⁵³¹

The international responsibilities are mentioned as follows: “All activities initiated by international organizations with the aim of solving the global environmental issues would be

⁵²⁹ Ibid.

⁵³⁰ 48th Government Program of Republic of Turkey. Web: <http://www.tbmm.gov.tr/hukumetler/hp48.htm>

⁵³¹ Ibid.

followed closely and contributed actively. Alongside, the works which have been initiated with the aim of protecting Black sea would be pursued in accordance with the countries border to Black sea. Furthermore, legal and technical measures would be taken for complying with the international conventions and protocols about environment which Turkey is a party.”⁵³²

As for education it is said that: “the *Turkey Children Environment Clubs*, which were founded with the aim of providing self esteem and sense of responsibility to the society for our children by bringing conscience of recognition and protection of the environment, would be spread nationwide.”⁵³³

Environment was dealt quite broadly in this government program, including environmental aspects of education, development, international relations and technology. The balance between environment and development was stressed and both of them declared as having same weight in this program. International relations about environmental issues were for the first time mentioned in a government program. Most fascinating aspect in this program was emphasizing made on the importance environmental education in order to raise environmental consciousness.

Environment in 49th Government Program (Prime Minister Süleyman Demirel - 21.11.1991-25.06.1993): This government was a coalition government which is formed by True Path Party (DYP) which was headed by Süleyman Demirel and Social Democrat People’s Party (SHP) which was headed by Erdal İnönü. DYP was a central right party and SHP was a central left party. Thus the program was product of a compromise between left and right political ideas but weight of left was quite obvious.

This program referred the environment firstly under the topic of Tourism policy. “A tourism policy, which is sensitive to nature, environment and cultural values, would be developed. ...the main goal of our government about environment is to protect the historical, cultural and natural environment.”⁵³⁴ The environment, in this statement, is connected with tourism and addition to natural environment; cultural and historical environments are also mentioned.

⁵³² Ibid.

⁵³³ Ibid.

⁵³⁴ 4th Government Program of Republic of Turkey. Web: <http://www.tbmm.gov.tr/hukumetler/hp49.htm>

“Our government, by considering raising environmental consciousness in all society as the most important condition for protecting the environment, would concentrate on activities about environmental education and raising consciousness in all sections of society and put environmental issues in syllabuses starting from primary schools. In order to protect environment, actions would be taken for reducing pollutions of sea, river, ground, air and noise and developing consciousness on environment. Emphasis would be put on projects about recycling of wastes. In line with this belief, a real environment management model, either at local or national levels, would be implemented. Environmental sanctions would be re-regulated and a new credit, incentive, charge and tax system would be brought.”⁵³⁵

A wide range of issues about environment had been dealt in this program compared to previous ones, including tourism, education, environmental consciousness, waste management and environment management. Environmental education integrated with environmental consciousness had an important place in this program, even putting environment in syllabuses of primary schools is recommended which is a significant progress in terms of raising consciousness on environment in Turkey.

Environment in 50th Government Program (Prime Minister Tansu Çiller - 21.11.1991-25.06.1993): Tansu Çiller was in charge of forming the government after Süleyman Demirel was elected as the president of Republic of Turkey in 1991. The coalition between DYP and SHP was pursued.

Different aspects of social state are stressed by putting environment as one of the most important issues in this program: “Turkey would be provided with, as a necessity of being a social state, an efficient structure in implementation of public services, especially in the fields of education, health and environment. All measures would be taken to produce inexpensive, reliable, abundant and high quality energy through a nonpolluting way. The strengthening of social state would be realized by the progress made in health, education and environment.”⁵³⁶

Development would be realized in accordance with nature not against it. In the process of development, human health and natural balance would be preserved. All public, local and voluntary organizations which work in the field of environment as decision-makers,

⁵³⁵ Ibid.

⁵³⁶ 50th Government Program of Republic of Turkey. Web: <http://www.tbmm.gov.tr/hukumetler/hp50.htm>

implementers and controllers would be institutionalized and education of the human resource in this field will be supported.⁵³⁷

In addition to principle of “polluter pays” the principle of “user pays” will also be effectively implemented. Incentive mechanisms would be developed for preventing environmental pollution and these mechanisms would be financed by credits with reasonable conditions.⁵³⁸

Environmental issues, alongside with development policies, were considered within the framework of social policy in this program. For the first time in a government program, due to the impact of international agreements on environment signed by Turkey, two important environmental principles, ‘polluter pays’ and ‘user pays’, were pronounced.

Environment in 51st Government Program (Prime Minister Tansu Çiller - 05.10.1995-30.10.1995): This single party minority government of Tansu Çiller could not obtain a vote of confidence. It had just lasted 25 days. It is stated in this program that “In accordance with the purpose of protecting and improving the environment, a sustainable economic development would be aimed. In the long term, utmost attention would be paid for constituting a balance between economic development and environment. In order to clarify the distribution of responsibility and authority among different organizations, Law No. 2872 ‘Environment Code’ would be revised.”⁵³⁹ The balance between development and environment stressed again in this program, similar to other government programs, however revision of ‘Environment Code’ was the focal point of this program about environment. Besides, the term of “sustainable development” was pronounced for the first time in a government program.

Environment in 52nd Government Program (Prime Minister Tansu Çiller - 30.10.1995-06.03.1996): This was a coalition government formed by DYP and Republican People’s Party (CHP), a central left party. This government again could not last too long, only five months, however, the period of this government was dominated by the Customs Union decision of Turkey with the EU and reflections of this process can easily be noticed in this program.

In accordance with the purpose of integration to world markets and full membership to the European Union, the government would pursue its efforts pertinaciously to increase the effectiveness in economics and to provide liberal market conditions which are organized, competitive and environment friendly.⁵⁴⁰

⁵³⁷ Ibid.

⁵³⁸ Ibid.

⁵³⁹ 51st Government Program of Republic of Turkey. Web: <http://www.tbmm.gov.tr/hukumetler/hp51.htm>

⁵⁴⁰ 52nd Government Program of Republic of Turkey. Web: <http://www.tbmm.gov.tr/hukumetler/hp52.htm>

The special point in this program was emphasizing made on environment within the framework of market economy and accession to the European Union.

Environment in 53rd Government Program (Prime Minister Mesut Yılmaz - 06.03.1996-28.06.1996): This government was a coalition government formed by ANAP and DYP, two central right parties. Coalition of two central right parties was not quite common in Turkey.

In order to protect the environment and be compatible with health conditions and national standards, importation would be regulated in line with the principles and regulations of World Trade Organization and the European Union.⁵⁴¹

The incentive policy would be implemented in a way that it should provide new employment opportunities, support to small and medium sized businesses, environmental protection, contribution to improvement in priority regions for development and structural harmonization necessitated by Customs Union. Furthermore, Research and Development policies and investments of firms would be supported in order to provide, produce and adapt to high technology.⁵⁴² Environmental protection would be dealt with in an economically, commercially, socially and politically harmonized and unified approach. Alongside with environmental restoration approach in which the action is taken after the pollution happens, preventive policies would be preferred which protects environment before it got polluted.

Environmental policy would be integrated with all economic and social policies and, for this reason, economic means would be exploited. Action plans would be prepared after coordinating public organizations, voluntary organizations and local administrations for developing and disseminating environmental consciousness in the society.⁵⁴³

Besides the place of environment in economic and social policies, in this program the type of environmental actions are defined and in line with the EU's environmental policy, preventive action was announced as the preferred one. Moreover, coordination at different levels and sections of government and civil society for environmental action plans is officially pronounced.

⁵⁴¹ 53rd Government Program of Republic of Turkey. Web: <http://www.tbmm.gov.tr/hukumetler/hp53.htm>

⁵⁴² Ibid.

⁵⁴³ Ibid.

Environment in 54th Government Program (Prime Minister Necmettin Erbakan - 28.06.1996-30.06.1997): This was again a coalition government formed by Welfare Party (RP) and DYP headed by RP's Necmettin Erbakan, who was an Islamist politician. The RP and its follower Virtue Party (FP) was closed by the Constitutional court as being hostile to the principles of Republic, especially to the principle of Laicism.

Protection of environment would be dealt with in an economically, commercially, socially and politically harmonized and unified way. In addition to environmental restoration policy, preventive policy would be preferred for protection of environment. Actions towards developing consciousness on environment would be pursued. Entrance of any kind of waste to our country would be prevented and recycling activities would be supported for minimizing the amount of waste emerged in the country.⁵⁴⁴

Beside the messages on harmonization and unification policies, significance of recycling and preventive action is stressed in this program.

Environment in 55th Government Program (Prime Minister Mesut Yılmaz - 30.06.1997-11.01.1999): This government is formed by three different parties, ANAP, Democratic Left Party (DSP), and Democrat Turkey Party (DTP) and by independents in the parliament. The formation of this government was just after the turbulence of party closures. Thus, the main objective of this government was to reduce the tension in social and political life in Turkey.

“In Energy projects, the priority would be given to ones which are clean and efficient in usage. In line with sustainable development approach, the main purpose is to leave a humanely natural and social environment to next generations by protecting human health and natural balance and providing a natural resource management which allows a sustainable development. The disposal of wastes which are hazardous to environment and natural life would certainly be prevented. The biochemical opportunities for dissolving of liquid wastes would intensely be used. In line with this purpose, a highly polluted river would be chosen as pilot region.”⁵⁴⁵

The concept of clean energy and protection from wastes were emphasized in this program and for the first time environment has its own special section in a government program.

⁵⁴⁴ 54th Government Program of Republic of Turkey. Web: <http://www.tbmm.gov.tr/hukumetler/hp54.htm>

⁵⁴⁵ 55th Government Program of Republic of Turkey. Web: <http://www.tbmm.gov.tr/hukumetler/hp55.htm>

Environment in 56th Government Program (Prime Minister Bülent Ecevit - 11.01.1999-28.05.1999): After the fall of the 55th government the President had given the charge of forming the government to DSP's Bülent Ecevit. He formed a minority government supported by two other parties in the parliament. The main aim of this government was to pursue the governing mission until the coming elections. Thus their government program was not detailed and long. In this program environment was only mentioned as "balance of nature and environmental health would be dealt with utmost sensitivity."⁵⁴⁶

Environment in 57th Government Program (Prime Minister Bülent Ecevit - 28.05.1999 - 18.11.2002): This government was a three party coalition formed by DSP, ANAP and Nationalist Movement Party (MHP), which is a right wing nationalistic party. These three parties had different political roots and thus diverse political agendas. In order to compromise, all parties within the coalition did not insist on conflicting issues and as a result this government program quite vague in terms of objectives and statements about most of the problems.

The environmental problems the solution of which has been delayed constantly are now in a position that disturbs the balance of nature, although they have been among the most primary problems for years. Our government would elaborate on the protection of environmental health and balance of nature in undertakings of development. The pollution created by untreated industrial and residential wastes in our rivers and lakes would be prevented. Special importance would be given to the treatment of sewage in the metropolitan areas.⁵⁴⁷

The both government programs of Bülent Ecevit did not offer a concrete policy for environment. They just mentioned environment very vaguely.

Environment in 58th Government Program (Prime Minister Abdullah Gül - 18.11.2002 - 14.03.2003): After more than ten years of coalition governments period, in 2002, a single party government was formed by Justice and Development Party (AKP) headed by Abdullah Gül. Actually, the leader of this political movement was Tayip Erdoğan, but he was banned from politics and thus the second man in the movement was charged to form the government. This party has Islamist roots; it was one of the strands entailed from the closed Welfare Party.

The authority and responsibility of ministries in the provinces would be delegated to Governorships and special provincial administrations. The services of health, education,

⁵⁴⁶ 56th Government Program of Republic of Turkey. Web: <http://www.tbmm.gov.tr/hukumetler/hp56.htm>

⁵⁴⁷ 57th Government Program of Republic of Turkey. Web: <http://www.tbmm.gov.tr/hukumetler/hp57.htm>

culture, social cooperation, tourism, environment, rural services, agriculture, animal breeding, town planning and transportation would be held at provincial level by taking local preferences into consideration. The polluters in energy sector would be controlled elaborately and with the purpose of protecting the environment, clean energy sources and transformation technologies would be used. In mining sector, utmost importance would be given for protecting the environment. Every measure would be taken to protect our natural and environmental assets and to leave a habitable environment for next generations.⁵⁴⁸

The different point in this government program compared to previous ones was the expressions about administrative decentralization in some fields including environment and for the first time negative environmental effect of mining was pronounced.

Environment in 59th Government Program (Prime Minister Tayyip Erdoğan - 14.03.2003 - 29.08.2007): In 2003 the ban of Tayyip Erdoğan was lifted and firstly he became a parliamentarian then he took over the leadership of AKP and formed a new government. The program of this government was a little revised version of the previous one.

The issue of decentralization was repeated in this program as same as the previous one. The significant points in this one are competition and environment were linked with each other and the notion of “social responsibility” pronounced for the first time.

Restrictions that prevent competition would be removed by legal arrangements and protection of environment and efficient regulation and control would be realized. Social responsibility approach would be imposed to all economic units.⁵⁴⁹

Environment in 60th Government Program (Prime Minister Tayyip Erdoğan - 29.08.2007 - ...): In 2007, AKP won the elections again by a vast majority of 47% of the votes.

The principle of ‘...right to live in a healthy and balanced environment’ which can be found in our constitution forms the basis of our environmental policies.” We are aiming to make Turkey a country in which the biological diversity is protected, natural resources are managed in line with the sustainable development approach and the right to live in a healthy and balanced environment is respected. We will provide the spread of facilities of waste refinement and recycling.⁵⁵⁰

There is nothing new and interesting about environment in this last government program, just for the first time the article on environment in the Constitution was referred. The detailed

⁵⁴⁸ 58th Government Program of Republic of Turkey. Web: <http://www.tbmm.gov.tr/hukumetler/hp58.htm>

⁵⁴⁹ 59th Government Program of Republic of Turkey. Web: <http://www.tbmm.gov.tr/hukumetler/hp59.htm>

⁵⁵⁰ 60th Government Program of Republic of Turkey. Web: <http://www.tbmm.gov.tr/hukumetler/hp60.htm>

analyses about AKP governments would be made in the Chapter on Europeanization of Turkish Environmental policy.

2.2.7. Institutional Change in State Policies: Turkish Environmental Policy in Five Year Development Plans between 1963 and 1996

Until the 1960s, similar to rest of the World, there were no plans, programs or legal arrangements against environmental problems and as a matter of fact, consciousness about environmental protection was not developed in Turkey. This situation has some reasons. First of all, the concept of planning was not developed yet in Turkey, secondly, Turkey had not faced the pollution of industrialization and problems of rapid urbanization until that period of time. On the contrary, Turkey, no matter how, had a single objective of rapid development. Turkey, for the first time, necessitates planning the efforts of development and industrialization with the Constitution of 1961. In this section, development plans would be assessed up to seventh one. Because, the following plans were made in order to comply with the EU's Environmental Policy and the issue of coming in line with the EU is subject of the next chapter and it will be dealt there. Here, the aim is to demonstrate environment in development plans just before the issue becomes highly Europeanized.

The First and Second Five Year Development Plans (1963 – 67 and 1968 – 72)

One of the most important determinants in Turkish Environmental Policy has been the five year development plans (FYDP) prepared by the state planning organization. There were no special provisions for the environmental policy in the first FYDP, which covers the years of 1963 – 67 and second five FYDP, which covers the years of 1968 – 72. In the first FYDP environment is mentioned only indirectly within the sections of 'Social Progress and Development' and 'Agriculture and Industrial Production'; the importance of industrialization in economic development is stressed in the plan, however the pollution caused by industrialization is not mentioned within the entirety of it.⁵⁵¹ The second FYDP contains sections such as regional development, urbanization problems and urbanization strategies

⁵⁵¹ State Planning Organization, "First Five Year Development Plan", State Planning Organization Pub., Ankara, 1963. Web: <http://ekutup.dpt.gov.tr/plan1.pdf>

compatible with health policies as a reflection of unplanned urbanization and housing problem.⁵⁵²

The Third FYDP (1973 – 77)

In the third FYDP, as an indicator of advancing of environmental consciousness in Turkey after the 1972 Stockholm Environment Conference, at which the environmental issues were considered internationally for the first time, environmental policy was analyzed in a special section. The first national level environmental policy was introduced with the third FYDP. Environmental policies had been developed and planned by different organizations which put forth their own evaluations and perspectives with regard to policy development until that period. With the third FYDP, which was implemented as of 1973, the environmental policies gained a national dimension.⁵⁵³ In this plan, fundamental environmental problems such as pollution of water, air and coasts were pointed out and the necessity of dealing with them in an integral manner was stressed. The perception of environmental policy in this plan had been ‘reducing or removing the pollution’. Although this plan contains some positive policies such as updating of legal arrangements about environment, coordinating related organizations, being sensitive to polluter industries and providing public education on environment; the main principle of this plan has to be recalled, which is “any policies that may harm industrialization and development shall not be adopted”. Other important provisions about defining environmental problems are as such in this plan:

- The environmental problems of Turkey, which is a developing country, are caused by scarcity of income and insufficient usage of sources.
- An environmental policy which harms industrialization and development is unacceptable.
- There is a need for a centralized institution to provide coordination between planning and implementer ministries.⁵⁵⁴

Furthermore, in order to prevent deviation from Turkey’s objective of development through industrialization, it is stated that all international efforts and legal arrangements about environment would be followed by a technically valid and active policy and any commitments which may jeopardize the efforts of industrialization and development would not be accepted.

⁵⁵²State Planning Organization, “*Second Five Year Development Plan*”, State Planning Organization Pub., Ankara, 1968. Web: <http://ekutup.dpt.gov.tr/plan2.pdf>

⁵⁵³ State Planning Organization, “*Third Five Year Development Plan*”, State Planning Organization Pub.,

Ankara, 1973. Web: <http://ekutup.dpt.gov.tr/plan3.pdf>

⁵⁵⁴ Ibid.

This perception demonstrates that environmental issues could not draw the necessary attention in this plan.

The Fourth FYDP (1979 – 83)

The fourth FYDP⁵⁵⁵ has also similar but more developed structure and understanding about environment than the third FYDP. The preparation period of this plan overlapped with a period of which the problems of intense air and water pollution and erosion appeared in Turkey. The pollution in Golden Horn, bays of İzmir and İzmit and air pollution in Ankara was in the agenda at the time of fourth FYDP. So, as a result of these and similar problems; some principles of taking environment into consideration in relation with industrialization, modernization in agriculture and urbanization took part in this FYDP.⁵⁵⁶ These principles were concentrated in three points:

- Environment has to be considered as an important element and determinant in the process of industrialization, modernization of agriculture and urbanization.
- The approach of “preventing the environmental problems before they occur” has to be emphasized. Because, if the environmental problem reaches to an irrevocable point, the cost of eliminating it would be higher
- Priority has to be given to projects for environmental cleansing and treatment in the regions where the environmental problems reach to an extent of threatening the human health.⁵⁵⁷

Furthermore, the empowerment of local administrations on environmental issues, assessment and support of activities of NGOs that work for environment, forming and protecting rest places in rural and urban areas and creating green belts around the metropolitan areas were introduced in this plan.⁵⁵⁸ This plan is significant for environmental policies, because for the first time in an official document, policies about ‘preventing environmental problems before they occur’ were expressed.

In the fourth FYDP, it is also suggested that Turkey should participate in international activities, follow international legal, scientific and technologic developments and act actively

⁵⁵⁵ State Planning Organization, “*Fourth Five Year Development Plan*”, State Planning Organization Pub., Ankara, 1979. Web: <http://ekutup.dpt.gov.tr/plan4.pdf>

⁵⁵⁶ Nuran Talu, op.cit., p. 21

⁵⁵⁷ State Planning Organization, “*Fourth Five Year Development Plan*”, State Planning Organization Pub., Ankara, 1979. Web: <http://ekutup.dpt.gov.tr/plan4.pdf>

⁵⁵⁸ State Planning Organization, 1979, op. cit.

on the issues which are important for the region.⁵⁵⁹ As a consequence, Turkey took these suggestions seriously and signed Barcelona Convention in 1981 and Convention on Long Range Trans-boundary Air Pollution in 1983.

The Fifth FYDP (1985 – 89)

The principles and resolutions brought by this plan are more advanced than the previous ones. A definition of environmental problems was made in this FYDP. According to that definition, the environmental problems are troubles caused by urbanization, environmental pollution that occurs after erosion and natural disasters, rapid industrialization and agricultural modernization. This plan also developed a basic approach about environment. The view of ‘effective usage of natural resources and transferring them in a healthy way to the future generations’ was considered as important as the approach of ‘reducing or removing the pollution’ since the implementation of fifth FYDP in 1985.⁵⁶⁰ As a matter of fact, the State Planning Organization initiated a public negotiation on ‘Our Common Future – Brundtland Report’ which was an important step for assessment of environmental policies in Turkey with a view to contemporary norms.⁵⁶¹

This plan also mentions about guarding the ecological balance while using the natural sources. Besides, in the period of fifth FYDP, it is asked for determination of environmental problems in the planning phase of land usage and investment decisions and taking measures according to the related legislation.

It is also stressed in this plan that evaluation of water quality at basin level and rational arrangement for usage of water resources is necessary. In addition to this, it is argued that the existing industrial plants have to be removed in the regions where intensive water pollution is observed such as Marmara Sea, Golden Horn, bays of İzmir and İzmit.

Air pollution in Ankara was almost at an intolerable level in the period of this plan. The fifth FYDP suggested, Ankara being in the first place, for all cities suffering from this problem to take urgent measures. According to these measures, it is recommended to establish air

⁵⁵⁹ Ibid.

⁵⁶⁰ State Planning Organization, “*Fifth Five Year Development Plan*”, State Planning Organization Pub., Ankara, 1985. Web: <http://ekutup.dpt.gov.tr/plan5.pdf>

⁵⁶¹ Nuran Talu, op.cit.

pollution control stations and to prepare projects for providing high quality fuel and most importantly, finding alternative fuels for heating.

Finally in this plan, it is stated that activities of research and development in the field of environment would be prioritized and the related universities and institutions would be supported.

The Sixth FYDP (1990 – 94)

The sixth FYDP has a special importance for environmental policies in Turkey. In this plan, environment issue was taken into account within the framework of other sectoral policies and strategies as well for the first time in Turkey.⁵⁶² The period of this plan also involved the process of Rio, which was started by United Nations Conference in 1992; thus the linkage between economic development and protection of environmental assets has been well-established with the sixth FYDP.⁵⁶³ In other words, for the first time the concept of ‘sustainable development’ was adopted by sixth FYDP. This approach can be traced in the following statements:

The main purpose is to leave a humanely natural, physical and social environment to future generations by protecting human health and natural balance and providing a natural resource management which allows for sustainable development.

It is essential to take environment into consideration in all economic policies.

The potential environmental problems will be predicted and necessary measures would be taken before the pollution occurs.

The environmental consciousness will be spread and the environment dimension will be taken into consideration in phases of planning.⁵⁶⁴

It can easily be argued that the plan is dominated by an understanding of protection that carries the basic principles of sustainable development and ecocentric view, in which the human health and natural balance are put together. In the sixth FYDP, wastes are subject to a classification. Medical, residential and industrial wastes would be collected and removed

⁵⁶² State Planning Organization, “*sixth Five Year Development Plan*”, State Planning Organization Pub., Ankara, 1990. Web: <http://ekutup.dpt.gov.tr/plan6.pdf>

⁵⁶³ Nuran Talu, op.cit.

⁵⁶⁴ State Planning Organization, 1990, op. cit.

separately. Besides, storage tanks for liquid wastes of nuclear medicine departments were offered.⁵⁶⁵

The FYDP brought some measures to reduce pollution in energy production. Firstly, it is recommended to make economic assessments, which take environment into account, on producing, transferring, transforming and using energy. Secondly, it is suggested to transfer technologies which reduce the pollution in energy production. Finally, in order to exploit the potential of renewable energy resources, the necessary researches should be initiated; urgent measures should be taken for improving the quality of conventional energy resources such as petroleum (e.g. producing unleaded gas) and preventing pollution during the consumption of such resources (e.g. using catalyst).⁵⁶⁶

The Seventh FYDP (1996 – 2000)

Seventh FYDP⁵⁶⁷ was one of the most important documents ever in Turkey about environment. It covers the years of 1996 – 2000. The seventh FYDP had been shaped in a period in which the economic and political decisions are determined by the affects of 1994 Economic Crisis and the Customs Union decision between Turkey and the EU. This plan dealt not only with environment itself but it also offers sustainable development, harmonization of environmental policies with economic and social policies, commitment to international agreements, social compromise and mass participation in environmental issues. Furthermore, seventh FYDP suggests reform about societal, institutional and legal structures. As a matter of fact, the Customs Union process had been a period in which the private sector gave utmost attention to environmental issues in order to prevent any type of interference to its competitiveness.⁵⁶⁸

The novelty in seventh FYDP was that it approached the existing environmental policies in a critical way. Within this framework, problems are determined and some solutions are suggested. In the ‘Protection and Improvement of Environment’ section of plan, it is stated that the changes in environmental policies of Turkey from reducing the pollution approach to

⁵⁶⁵ Ibid.

⁵⁶⁶ Ibid.

⁵⁶⁷ State Planning Organization, “*Seventh Five Year Development Plan*”, State Planning Organization Pub., Ankara, 1996. Web: <http://ekutup.dpt.gov.tr/plan7.pdf>

⁵⁶⁸ Nuran Talu, op. cit., p. 22

preventing the pollution and the principle of sustainable development is not sufficient in terms of implementation and legislation. In legislation, emphasize was on the ‘removing of pollution’, finding the preventive and protective policies was difficult in legal documents. Under the section of ‘Protection and Improvement of Environment’ environmental problems in Turkey are dealt with under three subheadings:

- current situation,
- objectives, principles and policies,
- Legal and institutional arrangements.

The first subtopic explains the current situation. Under this subtopic, the insufficient level of realization of the objectives of the previous plan is mentioned and the reasons of this situation are emphasized. These reasons are stated briefly as:

- Lack of coordination, cooperation and division of labor between the institutions responsible for environmental administration,
- Environmental Financing System,
- Lack of environmental data and information infrastructure,
- Lack of legal arrangements which promote effective environmental management.⁵⁶⁹

These reasons should be elaborated. First of all, according to the seventh FYDP, MoE, which was founded with the missions of determining main policies about environment and providing coordination and cooperation between the related organizations, is ineffective in conducting those functions.⁵⁷⁰ The provincial level organizations of the Ministry could not be functional due to being deficient in technical infrastructure; however, more crucially, division of labor is not clearly defined between central, provincial and municipal levels of administration, thus the local organizations of MoE remain ineffectual in implementation.

Furthermore, there are errors, inconsistencies and duplications in existing environmental legislation. This situation creates difficulties in implementation of the environmental legislation.⁵⁷¹ The main problem in environmental legislation is that the Environment Code cannot meet the current needs of society. The reasons for the problems in implementation of

⁵⁶⁹ State Planning Organization, “*Seventh Five Year Development Plan*”, State Planning Organization Pub., Ankara, 1996. Web: <http://ekutup.dpt.gov.tr/plan7.pdf>

⁵⁷⁰ State Planning Organization, 1996, op. cit.

⁵⁷¹ Environment Foundation of Turkey, “*Avrupa Birliği’nde ve Türkiye’de Çevre Mevzuatı*”, Environment Foundation of Turkey pub., Ankara, 2001, p. 104

the Code are the inadequacy and insufficiency of sanctions, emphasizing the pollution aspect but disregarding protection of the environment and lack of any arrangements about environmental education and participation.⁵⁷²

The seventh FYDP states that the funds and financial resources reserved for protection of environment are not sufficient. The existing funds are usually not allocated for preventing environmental problems but for removing the environmental problem after it occurred. According to the plan, the environmental standards are unsatisfactory, because they were not built on necessary research and did not follow the standard development processes.⁵⁷³ Furthermore, those standards have to be updated in line with international standards, especially with EU standards. Moreover, data and information systems are incapable of providing necessary information.

Although the regulation on Environmental Impact Assessment (EIA), the most important method for taking environment into account in economic and social investments, entered into force, its implementation is limited as a result of shortage of data and information on which the assessment would be based, the technical incapability of human resources that would make the assessment and structural problems brought by the regulation.⁵⁷⁴

The seventh FYDP underlines the fact that public participation in environmental issues is weak in Turkey. In recent years, the efforts of NGOs to become a pressure group increase the awareness in public opinion. In order to make participation more effective in all levels, courses about environment have been added to the curriculum of mass education system. However, these efforts are not sufficient in increasing awareness and participation.⁵⁷⁵

In addition, it is pointed out in seventh FYDP that Turkish Environmental Legislation is not sufficiently incorporated in education at all, which increases environmental consciousness and participation in decisions, implementation of decisions and enforcement of decisions about environment.

⁵⁷² Ibid.

⁵⁷³ State Planning Organization, 1996, op. cit.

⁵⁷⁴ Ibid.

⁵⁷⁵ Ibid.

The seventh FYDP brings new suggestions for the solution of the abovementioned insufficiency and incapability in environment sector in its second subtitle about environmental objectives, principles and policies. Sustainable development is adopted as basic principles in this plan. Instead of passive measures for environmental protection, this plan prioritizes strategies of preventing the pollution before it happens. For this purpose, in implementation of measures for protecting the environment, arrangements which prevent unfair competition caused by environmental polluters would be realized.

According to this plan environmental policies would be integrated to economic and social policies.⁵⁷⁶ For this purpose, the necessary economic and financial tools would be utilized. In environmental management the principles of “command and control” and “encouragement” would be used together. In international arena actions for global pollution would be taken within the framework of “Common responsibility but differentiated responsibility” principle.⁵⁷⁷

The seventh FYDP states that entry of any kind of wastes into the country would be prevented and the works for reducing and recycling of wastes would be supported for the domestic waste management.⁵⁷⁸ Moreover, the National Environmental Strategy would be prepared, the responsibility and authority of MoE, other related ministries and local administrations would be re-arranged and legal loopholes and complexities would be removed. For this purpose, new mechanisms would be developed in order to provide coordination and cooperation between the related institutions and organizations.

The strategies defined and compromised at national level would be devolved to levels of regions and ecological basins, and in the process of decision making, monitoring and controlling authority would be decentralized to the local initiatives. The plan stressed the activation of Environmental Impact Assessment system; formation of environmental monitoring and measurement infrastructure; development of environmental inventory, statistics, standards, research and development for eco-friendly technologies and information retrieval systems; and preparation of environment and development indicators and involving those indicators in decision making processes.

⁵⁷⁶ Ibid.

⁵⁷⁷ Ibid.

⁵⁷⁸ Ibid.

It is stated in seventh FYDP that international policies that would be developed having in mind environmental considerations have a decisive role in international economic, social, political and commercial affairs. Environmental and developmental activities of several international organizations would be closely monitored. Policies and decisions for solution of environmental problems would be brought in parallel with the norms of the EU and international standards.

This plan also promises to devote a share out of the general budget for environmental investments. Moreover, projects would be prepared in line with national environment priorities for benefiting from international financing resources reserved for environment. In using those financial resources, capacities of the organizations at the level of decision making would be strengthened. Furthermore, the plan indicates that formal and mass education would be rearranged and activities of NGOs would be supported in line with the principle of sustainable development.

The seventh FYDP, in the light of these policies, suggested the preparation of “Institutional Arrangements about Environment” and “National Environmental Strategy and Action Plan”. In order to have an efficient environment management the National Environmental Action Plan (NEAP) had been prepared under the guidance of State Planning Organization (SPO) with technical support of MoE and large participation of related parties. It was published in 1998 by SPO and has been one of the most important environmental documents since its publication.

The problems and suggestions for solution about environmental problems of the plan were briefly summarized in previous sections. The seventh FYDP in its third subtopic about environment necessitates legal and institutional arrangements in order to realize the proper implementation of environmental policies cited above. According to the plan, the first thing to be changed is the Constitution of 1982. Amendments have to be made in line with the principle of sustainable development in the clauses directly or indirectly related to the environment. Additionally, seventh FYDP suggests significant revisions in the codes of

Environment, Forestry, Encouragement of Tourism, Building, Coasts and Protection of Cultural and Natural Assets.⁵⁷⁹

2.2.8. The Areas that are Subject to Change in Turkish Environmental Policy

Turkey is in a phase of rapid and dynamic transformation and it is faced with the challenge of harmonizing environmental protection and extraordinary development. The sustainability regime pushes Turkey to achieve sectoral integration and implies changes in norms and beliefs.⁵⁸⁰ The growth in population is very high compared to developed countries and it is accompanied by largely uncontrolled urban growth.

Environmental policies in Turkey need further progress, particularly in two directions, to confront the challenge and promote both environmental advancement and sustainable development. These are, firstly, integrating environmental matters in all related sectors of economic activity and in all appropriate governmental policies; and, secondly, implementing and enforcing environmental legislation and practices effectively.⁵⁸¹

The administrative system in Turkey is highly centralized and it is intensively involved in economy. This centralized administrative system is designed to promote economic growth and to provide an economic infrastructure for sustainable development. The privatization process, which is on the agenda of the Turkish Government for a long time since the 1980's, however, created an opportunity for market forces to play a much greater role.⁵⁸²

The integration of economic and environmental policies could moderately reduce problems between economic and environmental fields in Turkey and may provide more preventive policies for the coming years. There are many laws, regulations, fiscal and other measures, which are in force to direct the economy and protect environment. They are often not well coordinated or enforced and in some cases conflicting. For example, according the 2008 OECD Environmental Performance Review of Turkey: Despite priority attention given to

⁵⁷⁹ Environment Foundation of Turkey, 2001, op. cit., p. 105.

⁵⁸⁰ Rana İzci, "The Impact of the European Union on Environmental Policy" in Fikret Adaman and Murat Arsel (eds) *Environmentalism in Turkey: Between Democracy and Development?* Aldershot, UK: Ashgate, p. 98, 2005

⁵⁸¹ Eyüp Özveren, Emre Özçelik and Selin Efşan Nas, "Environmental Policy in Turkey: An Institutional Critique", paper presented in Association for Heterodox Economics (AHE) Conference, Cambridge, UK, July 4–6, 2008, p. 2

⁵⁸² Ibid., p. 3

water issues in National Development Plans, Turkey still faces a multiple water challenge requiring further determined actions in areas like:⁵⁸³ adopting a comprehensive water law, balancing demand and supply in water resource management; managing water resources at the river basin level; promoting investment in water supply and waste water infrastructure; adequately pricing water services; ensuring compliance with waste water legislation by industry; and reducing pollution from agriculture.

Energy and transport policies represent an environmental challenge in all countries. Turkey needs to better integrate environmental concerns into these types of policies. Climate change, according to OECD, is also testing Turkish policies.⁵⁸⁴ Turkey should further set priority measures to mitigate and adapt to climate change, to adopt a National Climate Change Plan and to set nationally determined voluntary targets for energy use, renewable energy, afforestation and greenhouse gas emissions.

In spite of Turkey's impressive afforestation effort, including an increase from 250 to 400 million planted seedlings between 2004 and 2007; some parts of Turkey's rich biodiversity are threatened and will face increased pressure in the near future. Turkey needs to adopt and implement its National Biodiversity Strategy, and strengthen the funding and human resources to reach the domestic target of 10% of its territory in protected areas by 2010.⁵⁸⁵

The role of the MoEF is central in all aspects of environmental policy. In this respect, the Ministry has to be strengthened with financial and other sources to fulfill its objectives. It also has to confront international responsibilities such as negotiating environmental agreements, monitoring their implementation and participating in international environmental actions. The State Planning Organization has an equally significant role as it prepares five-year development plans and decides on investment priorities based on investment requirements. The SPO has the power to require that environmental considerations be incorporated into investment proposals which are totally or partially financed from public funds. Environmental policies are implemented at the provincial level by the coordination of relevant municipalities or government institutions. Due to Turkey being a centralized country, almost all ministries have their own local representatives in all provinces. The governor of each province under the Ministry of Interior is responsible for coordination between municipalities and government

⁵⁸³ OECD, "Environmental Performance Review: Turkey", Paris, 2008.

⁵⁸⁴ Ibid.

⁵⁸⁵ Ibid.

institutions. Integration among municipalities is difficult where no specific environmental cooperation is supplied.⁵⁸⁶ Another challenge in Turkey is to transpose environmental policies into daily environmental management improvements and related economic and social benefits.

2.2.8.1. Regulative and Financial Aspects of Environment in Turkey

Turkey already possesses numerous elements required for the efficient implementation of environmental policies, regulations and standards. For instance, there is already a plethora of legislation that identifies the principles for environmental management. However, the main problem in Turkey is the lack of enforcement capability. Fines and penalties for non-compliance with environmental regulations would need to be revised in order to have effectiveness. As a result of the gap between regulations and enforcement, the most important condition for enforcement of regulations and standards is their clear definition. Consequently, the enforcement of regulations is effectively carried out when assigned to a specific institution, and when the role does not contradict with any other institution. This is not the case in Turkey. Different institutions have the right to interfere in the decision-making process for enforcement of environmental regulations. The lack of any clear mandates and authorizations with regard to institutional responsibility decrease the effectiveness of implementation and enforcement.

Financing has also an impact on effective implementation of environmental policies. Financing of environmental policies in both public and private sectors will depend on the type of financing instruments used, on the determination of the government to raise sufficient funds and the ability of the economy to generate funds.⁵⁸⁷

Turkey aims to reduce future financing requirements to a minimum by putting maximum emphasis on preventive policies in industrial investments, energy production and use, etc. For each sector a specific strategy is being developed with the aim of preventing pollution and

⁵⁸⁶ Local authorities are under pressure to provide more services, ranging from the disposal of immense amounts of solid waste to the supply of safe drinking water and the construction of wastewater treatment plants. Due to their financial dependency on the central government and legislation limiting their capacity in decision-making, local authorities in Turkey are unable to meet the demands.

⁵⁸⁷ Lawrence H. Goulder and Ian W. H. Parry, "Instrument Choice in Environmental Policy", *Review of Environmental Economics and Policy* vol. 2, no. 2, 2008, p. 154

increasing and sustaining resource use.⁵⁸⁸ Turkey has already initiated such strategies in some areas. The use of natural gas in some urban areas has significantly reduced pollution in terms of SO₂ and particulate matter.⁵⁸⁹ Associated costs are relatively low and largely on individual households who benefit from clean air. However, such strategies have to enforce pollution control investment and introduce low emission technologies to new industrial plants in Turkey. Such strategies took the burden from the state and shift it to the private sector.⁵⁹⁰ The incentives to the enterprises for environmental investments are usually on end-of-pipe technologies. Mechanisms for promoting clean technologies must be developed.

The environmental services provided to the public such as water and sewerage systems and solid waste management is substantial and the necessity for financial sources is especially urgent in Turkey since serious damage has been caused to water resources and coastal regions. Mechanisms for public participation both in decision-making and implementation of environmental projects at the local level are on their way to be improved.

Economic instruments, which are used for the implementation of environmental policies, are not sufficient in Turkey. The environmental Sanitation Tax and the prices set for unleaded gasoline are examples of insufficient use of economic tools for environmental protection.⁵⁹¹ The Sanitation Tax is relatively low and the price difference between unleaded and leaded gasoline is not sufficient to encourage people to change their consumption patterns.

2.2.8.2. Informative, Normative and Participative Issues in Turkey about Environment

Information has a very important role in all phases of the environmental policy. Resource inventories are required in order to formulate standards; monitoring of emissions and discharges demonstrates whether conditions of permission are being met; monitoring of air and water quality exhibits the state of the environment. Despite significant advances in environmental monitoring and the provision of environmental information by many environmental and non-environmental institutions such as State Institute of Statistics and

⁵⁸⁸ Canan Erkan, "Çevre Politikalarına Entegre Yaklaşım" paper presented in 2. National Economics Conference, İzmir, Turkey, February 20 – 22, 2008, p. 3

⁵⁸⁹ Ibid.

⁵⁹⁰ Lawrence H. Goulder and Ian W. H. Parry, op. cit., p. 155

⁵⁹¹ Ibid.

State Planning Organization, there is no regular, comprehensive environmental information available (environmental data, environmental indicators, state of the environment reports, etc.). The projects for establishment of an environmental observatory and preparation of a nationwide environmental information strategy are still pending.⁵⁹² Since, the projects are progressing slowly; Turkey delays signing the Aarhus Convention. There are no clear estimates of public and private environmental investment expenditures.⁵⁹³

Mechanisms for public participation in Turkey have to be presented at different levels. The communication channels are important for the citizens to be informed about projects at the proposal stage. Although there are several participation mechanisms such as local environment committees, the environmental impact assessments, and councils for the environment and forestry, public participation is a relatively new process in Turkey. The absence of environmental reporting and information by the stakeholders leads to many conflicts with NGOs and in general, the public.⁵⁹⁴ Environmental NGOs representing civil society in general address a range of issues in order to establish themselves as stimulating and constructive partners for environmental progress.

The problem of participation occurs not only because of the state's policies; the environmental NGOs as with other similar organizations, lack trained, specialized and skilled staff, sufficient financial sources, access to foreign funds, project cycle management and public participation in Turkey.

In Turkish system of education, generally architectural planning, some branches of engineering (construction, chemistry, physics etc.), sociology, economics, biology and geography are the disciplines dealing with environment. Establishment of departments of Environmental Engineering, which directly deals with environmental problems, in universities has been a significant progress in training professionals dealing with environmental issues.⁵⁹⁵ In medicine, there are such branches as Environmental Health and Public Health and Medicine. However, ecology as a separate discipline is still missing from the university curriculum. Environmental concepts are studied only in a limited fashion in the departments of Economics and Law.

⁵⁹² Kerem Okumuş, *op. cit.* p. 38.

⁵⁹³ *Ibid.*

⁵⁹⁴ Çiğdem Adem, *op.cit.* p. 79

⁵⁹⁵ Kerem Okumuş, *op. cit.* p. 39.

The General Directorate of Secondary Education of the Turkish Ministry of National Education continues to work on the implementation of environmental education. They plan to develop environmental subjects in biology, geography and philosophy courses.⁵⁹⁶ An outline environmental curriculum will encourage specific action. Students must be able to identify the environmental resources, and be capable of using them for the most appropriate purposes within the framework of the new curriculum.

University education for the environment in Turkey is on its way to become rooted. There are more than twenty environmental research centers in Turkey. Eleven environmental engineering departments have been established within the last 20 years. There are Masters Programs in environmental studies. The only Bio-politics course is in the Urban and Environmental Sciences Ph.D. Program as a two-semester seminar at Ankara University. Students of various professions such as urban planners, architects, biologists, lawyers and social scientists participate in this Ph.D. program.⁵⁹⁷ Many other university departments deal with environmental sciences, conservation planning, and threshold analysis, while other departments such as architecture, landscape design, chemistry, construction engineering, physics and medicine offer environmental courses.

In this section, the current situation and problems in Turkish environmental policy are addressed. In other words, to what extent the discourse and reality fit with each other about environmental policy is tried to be understood. For that purpose, a framework about current operations of environmental policy was drawn and how environmental problems are confronted in everyday life was assessed. This is followed by a subsection in which feasibility of Turkish environmental legislation is demonstrated. Moreover, financing of environmental policies and problems occurring in financing of them were explained. In following subsection, the difficulty to reach environmental information, which is, in turn, one of the main reasons of abovementioned problems, was referred. Additionally, graciously but insufficient works of NGOs, especially on receiving and publishing environmental information, was mentioned. Finally, environmental education in Turkey, the most important means to raise environmental consciousness which the shortfall of it cause all those above-mentioned problems, was evaluated.

⁵⁹⁶ Ibid.

⁵⁹⁷ Ibid., p. 40.

2.3. Conclusions

The formulation of environmental policy was considered as multi-layered and it was argued that it was characterized by complexities because of the nature of the issues which have been dealt with as well as the many constraints on the policy process itself. The EU was searching for a policy-making strategy which would eliminate some of the constraints which these characteristics present. According to this dissertation, there were three issues which the policy makers have to resolve in this search: first, to establish that there is a need for the EU to take action on environmental protection; second, to ensure that there is commitment and willingness to act among the national governments; and third, to obtain enough resources to make the policy work. Environmental policy has been one of the major policy areas in which the EU plays a critical role.

Institutionally, environmental legislation, which is subject to QMV rather than unanimity, become easier to adopt, Moreover, the EU appeared to have become a major player in an international environmental context. The EU's achievements in the area of environmental policy since 1972 have been remarkable. The effectiveness of the policy measures is undermined by the inadequacy of implementation and enforcement by the national governments. Furthermore, the EU's environmental policy has developed against a background of an increasingly crowded national policy space. It has therefore proved to be difficult on occasion to alter the focus of the policy quickly. Although the EU has developed a strong regulatory regime in environmental policy, its success in integrating environmental concerns into other policy areas remains limited. This expansion in the EU's environmental remit occurred in response to pressures both from above (international negotiations and treaties) and from below (public opinion and member states). Overall progress towards integrating an environmental ethos into other EU policies has been slow and difficult. Policy making has been often frustrated by the differing values and expectations of the actors involved. Whilst the institutional framework from which EU policy issues was not designed to deal with the specific and complex issues which are included in environmental policy, that framework was designed to deal with often conflicting national interests. The typical bargaining among governments concerned with how environmental protection affects the economic competitiveness of their firms and their public finances.

The principle of subsidiarity has been proposed as the appropriate framework to provide the answer to the question of who makes the decisions within the EU. Decisions made as a result of the application of subsidiarity identify the most appropriate level of government to tackle a particular problem. This establishes whether the need is for EU or national action and thus determines who the actors in the policy-making process should be. At the same time the transboundary nature of environmental problems makes the application of subsidiarity difficult and problematic. As environmental pollution is transboundary and environmental measures may act as barriers to trade in the internal market, this would seem to imply that all environmental action should be taken exclusively at the supranational level. Still, from an essentially economic community with no firm legal basis for dealing with such issues, the EU has taken on an increasingly central role in policy sectors related to the environment and quality of life. Over the past 20 years, the EU has built up a substantial body of environmental law and has even embraced some green ideals such as the notion of sustainable development. Behind more than 200 environmental directives that tackle particular policy issues lies a strategic policy framework, provided by EAPs and Treaty articles, EU environmental policy can also be credited for having pushed a significant proportion of EU Member States further than they would otherwise have gone in areas of environmental protection, while creating provisions that allow other Member States to pursue stricter environmental standards than mandated by EU law. The first barrier to 'greenness' might be termed the 'integration gap', that is, the failure of environmental considerations to be integrated into decisions made in other policy sectors such as regional funding, transport or agriculture and the internal market. The second factor inhibiting policy development in environmental and related issues is the implementation gap'. Whilst an impressive legislative framework has been built up, there is no corresponding structure for environmental management. As a result, the degradation of the EU's environment has continued. Third, whilst EU legislation might raise standards of 'laggard' states, might also effectively pull down or weaken the environmental legislation of 'leader' states such as Denmark, Sweden or The Netherlands.

The historical record of Turkey in the field of environment, which covers a timeline from the late Ottoman era to contemporary Turkey, was first presented in Turkey section of the chapter. The regulative field was analyzed through assessments of environment in Turkish Constitutions, Turkish environment code and other regulative measures about environment. It was followed by the examination of the international impacts on environmental policy in Turkey. The domestic entities in Turkey about environment, which were both subject

institutions and catalysts to the change and adaptation, were also reviewed. Administrative tools used in environmental policy in Turkey, which seemed to be changed dramatically, were elaborated; such as plans, environmental impact assessments, environmental information, environmental education, research and development and financing mechanisms. The approaches of Turkish governments to the Environment since 1980s were also evaluated, in order to demonstrate the evolution of political view on environment. The changes of state policies between 1963 and 1996 in Turkey are exhibited through an examination of five year development plans.

The objective of the part about Turkey was to explain what has done about the issue of environment how it has been perceived in Turkey before the influence of the European Environmental Policy become more evident, which was the independent variable of the dissertation. Within the general framework of the dissertation, the chapter exhibited main lines of Turkish environmental policy which was the dependent variable of the study.

For the purpose of the chapter, the development of the environment was evaluated since the Ottoman era until today. It is followed by an elaboration of the Turkish legislation on environment. Constitutional approach to the environment and its impact on environmental legislation was firstly assessed. Then the Turkish Environment Code was dealt briefly. Finally, other legislation about the environment, such as regulations or other laws and codes, were dealt.

The responsibilities of Turkey entailed from international environmental agreements were evaluated. Firstly, the agreements of which Turkey is a signatory and the consequences of those agreements in Turkey were assessed. Secondly, United Nations conference on Global Climate Change and Turkey's stance in this conference were evaluated. Lastly, Kyoto Protocol and Turkey's position against it was handled in the light of current developments. In the fourth section, the institutions about environment in Turkey were elaborated. Firstly, the MoEF and other ministries related environmental issues were mentioned then the affiliated organizations to MoEF and local organization of it evaluated. Finally, the impact of the Nongovernmental Organizations (NGOs) to the environmental problems and their historical development were explained.

Turkey is in a phase of rapid and dynamic transformation and it is faced with the challenge of harmonizing environmental protection and extraordinary development. The growth in population is very high compared to developed countries and it is accompanied by largely uncontrolled urban growth. Thus, Environmental policies in Turkey need further progress, particularly in two directions, to confront the challenge and promote both environmental advancement and sustainable development. These were, according to the dissertation, firstly, integrating environmental matters in all related sectors of economic activity and in all appropriate governmental policies; and, secondly, implementing and enforcing environmental legislation and practices effectively.

The administrative system in Turkey is highly centralized and it is intensively involved in economy. The dissertation claimed that this centralized administrative system was designed to promote economic growth and to provide an economic infrastructure for sustainable development. The privatization process, which is on the agenda of the Turkish governments for a long time since the 1980's, however, created an opportunity for market forces to play a much greater role. It was suggested that the integration of economic and environmental policies could moderately reduce problems between economic and environmental fields in Turkey and may provide more preventive policies for the coming years. There are many laws, regulations, fiscal and other measures, which are in force to direct the economy and protect environment. They are often not well coordinated or enforced and in some cases conflicting.

The role of the MoEF is central in all aspects of environmental policy. In this respect, according to the dissertation, the Ministry has to be strengthened with financial and other sources to fulfill its objectives. It also has to confront international responsibilities such as negotiating environmental agreements, monitoring their implementation and participating in international environmental actions. The State Planning Organization has an equally significant role as it prepares five-year development plans and decides on investment priorities based on investment requirements. The SPO has the power to require that environmental considerations be incorporated into investment proposals which are totally or partially financed from public funds. Environmental policies are implemented at the provincial level by the coordination of relevant municipalities or government institutions. Due to Turkey being a centralized country, almost all ministries have their own local representatives in all provinces. The governor of each province under the Ministry of Interior is responsible for coordination between municipalities and government institutions.

Integration among municipalities is difficult where no specific environmental cooperation is supplied. Another challenge in Turkey, signified by this dissertation was to transpose environmental policies into daily environmental management improvements and related economic and social benefits.

Turkey possessed numerous elements required for the efficient implementation of environmental policies, regulations and standards. However, the main problem in Turkey has been the lack of enforcement capability. Fines and penalties for non-compliance with environmental regulations have required to be revised in order to gain effectiveness. As a result of the gap between regulations and enforcement, the most important condition for enforcement of regulations and standards was their clear definition. Consequently, the enforcement of regulations has been effectively carried out when assigned to a specific institution, and when the role did not contradict with any other institution. This was not the case in Turkey. Different institutions had the right to interfere in the decision-making process for enforcement of environmental regulations. The lack of any clear mandates and authorizations with regard to institutional responsibility has decreased the effectiveness of implementation and enforcement. Financing had also an impact on effective implementation of environmental policies. Financing of environmental policies in both public and private sectors have been depended on the type of financing instruments used, on the determination of the government to raise sufficient funds and the ability of the economy to generate funds.

Turkey aimed to reduce future financing requirements to a minimum by putting maximum emphasis on preventive policies in industrial investments, energy production and use, etc. For each sector a specific strategy has been developed with the aim of preventing pollution and increasing and sustaining resource use. Such strategies took the burden from the state and shift it to the private sector. The incentives to the enterprises for environmental investments have been usually on end-of-pipe technologies. The environmental services provided to the public such as water and sewerage systems and solid waste management was substantial and the necessity for financial sources has been especially urgent in Turkey since serious damage has been caused to water resources and coastal regions.

Economic instruments, which are used for the implementation of environmental policies, have not been sufficient in Turkey. The environmental Sanitation Tax and the prices set for unleaded gasoline have been examples of insufficient use of economic tools for

environmental protection. The Sanitation Tax is relatively low and the price difference between unleaded and leaded gasoline was not sufficient to encourage people to change their consumption patterns.

Information had a very important role in all phases of the environmental policy. Resource inventories have been required in order to formulate standards. Despite significant advances in Turkey about environmental monitoring and the provision of environmental information by many environmental and non-environmental institutions such as State Institute of Statistics and State Planning Organization, there have been no regular, comprehensive environmental information available.

It is argued that mechanisms for public participation in Turkey had to be presented at different levels. The communication channels have been important for the citizens to be informed about projects at the proposal stage. Although there have been several participation mechanisms such as local environment committees, the environmental impact assessments, and councils for the environment and forestry, public participation has been a relatively new process in Turkey. The absence of environmental reporting and information by the stakeholders led to many conflicts with NGOs and in general, the public. Environmental NGOs representing civil society in general address a range of issues in order to establish themselves as stimulating and constructive partners for environmental progress.

The problem of participation having been occurred not only because of the state's policies; the environmental NGOs as with other similar organizations, lacked trained, specialized and skilled staff, sufficient financial sources, access to foreign funds, project cycle management and public participation in Turkey.

In Turkish system of education, generally architectural planning, some branches of engineering (construction, chemistry, physics etc.), sociology, economics, biology and geography are the disciplines dealing with environment. Establishment of departments of Environmental Engineering, which directly deals with environmental problems, in universities has been a significant progress in training professionals dealing with environmental issues. In medicine, there are such branches as Environmental Health and Public Health and Medicine. However, ecology as a separate discipline is still missing from the university curriculum. Environmental concepts are studied only in a limited fashion in the departments of Economics

and Law. The General Directorate of Secondary Education of the Turkish Ministry of National Education continues to work on the implementation of environmental education. They plan to develop environmental subjects in biology, geography and philosophy courses. University education for the environment in Turkey has been on its way to become rooted. There are more than twenty environmental research centers in Turkey. Eleven environmental engineering departments have been established within the last 20 years. There are Masters Programs in environmental studies. The only Bio-politics course is in the Urban and Environmental Sciences Ph.D. Program as a two-semester seminar at Ankara University. Students of various professions such as urban planners, architects, biologists, lawyers and social scientists participate in this Ph.D. program. Many other university departments deal with environmental sciences, conservation planning, and threshold analysis, while other departments such as architecture, landscape design, chemistry, construction engineering, physics and medicine offer environmental courses.

The second chapter mainly addressed the current situation and problems in Turkish environmental policy. In other words, to what extent the discourse and reality fit with each other about environmental policy was tried to be understood. For that purpose, a framework about current operations of environmental policy was drawn and how environmental problems are confronted in everyday life was assessed. This was followed by a subsection in which feasibility of Turkish environmental legislation is demonstrated. Moreover, financing of environmental policies and problems occurring in financing of them were explained. The difficulty to reach environmental information, which is, in turn, one of the main reasons of abovementioned problems, was referred. Additionally, graciously but insufficient works of NGOs, especially on receiving and publishing environmental information, was mentioned. Finally, environmental education in Turkey, the most important means to raise environmental consciousness which the shortfall of it cause all those above-mentioned problems, was evaluated.

3. EUROPEANIZATION OF ENVIRONMENTAL POLICY IN TURKEY

In this chapter the process and consequences of institutional change would be analyzed. This chapter consists of three parts. The divergence between European and Turkish institutions in the field of environment is presented first and it is followed by European pressures for adaptation to Turkey is assessed. Finally the responses of Turkey to the adaptational pressures are evaluated.

The goodness of fit between Turkish and European Environmental Policies is first discussed in the first section of the chapter. Specifically dealing with several misfit areas, such as legislative misfit, organizational misfit, participative misfit etc. make the discussion more comprehensive. After discussing the gaps between Turkish and European environmental policies, the section continues with how the EU influences Turkey in the field of environmental policy. The progress reports of European Commission and the Accession Partnerships issued by the European Council are analyzed as the direct sources of adaptational pressures from the EU.

The chapter is completed by the responses of Turkey to the pressures from the EU. The responses of Turkey considered as incremental to the adaptational pressure; since there have been no revolution or revolution-like actions in Turkish environmental policy. The first step in institutional change are named as preliminary actions; since every time the objectives are set and plans are made in certain official documents before any step is taken in the field of environment. These objectives and plans are demonstrated through National Environmental Action Plan, Eighth and Ninth Five Year Development Plans, the National Programs of Turkey for the Adoption of Acquis and the EU integrated Environmental Approximation Strategy. In the final part of the section the actual proceedings made in the environmental policy of Turkey for coming in line with the European Environmental Policy are elaborated. The institutional change is approached through a three dimensional view: the change efforts are analyzed through the dimensions of the policy making, organizational structure and legislation. In order to extend the area of research a sector by sector assessment is chosen, which provides a more comprehensive and detailed view.

3.1. 'The Goodness of Fit' between Turkish and European Environmental Policies

The 'goodness of fit' between the European and the domestic level determines the degree of pressure for adaptation generated by Europeanization on the member states: "The lower the compatibility between European and domestic processes, policies, and institutions, the higher the adaptational pressure."⁵⁹⁸ In general, if European norms, rules, and the collective understandings attached to them are largely compatible with those at the domestic level, they do not give rise to problems of compliance or effective implementation.

There are two conditions for expecting domestic changes in response to Europeanization: First Europeanization must be "inconvenient", which implies a 'misfit' or 'incompatibility' between European processes, policies and institutions, on the one hand, and national level processes, policies and institutions on the other.⁵⁹⁹ This degree of misfit constitutes an adaptational pressure which leads to a necessary condition for expecting domestic change. The second condition is a range of facilitating factors responds to the adaptational pressures.⁶⁰⁰ In brief, misfit and resulting adaptational pressures constitute the starting point for any causal mechanism discussed in the literature. Inconvenience in administrative, participative, institutional and legislative areas between the EU and Turkey in environmental policy are determined as 'Misfit' in this section.

3.1.1. Legislative Misfit

The Environment Act was constrained in various ways:

- While the objectives of the Act are laudable, its implementation is difficult;
- the Higher Council for Environment and the Local Environmental Councils have no real executive authority;
- neither the environmental sub sectors to be covered nor the responsible agencies (and their tasks) are well defined;
- development is given priority over preserving the environment;
- Environmentally harmful activities are classified as "administrative violations" that may only be punished with administrative sanctions;

⁵⁹⁸ Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, op. cit. 2001, p. 3..

⁵⁹⁹ Tanja A Börzel and Thomas Risse-Kappen. Op. cit. 2003, p. 58

⁶⁰⁰ Ibid.

- violations of different magnitude are fined at the same rate;
- the Act on National Parks allows construction, mineral/petroleum exploration and extraction in areas reserved as national and natural parks;
- the Act on the Protection of Natural and Cultural Assets asserts the need to preserve assets, but then defines ownership and responsibility in conflicting ways; and
- legal arrangements to identify, register and preserve assets and impose sanctions are inconsistent.⁶⁰¹

Despite the collection of measures, enforcement efforts are weak. For example, illegal settlements were encouraged and regularized in the 1980s through several *gecekondü amnesties*.⁶⁰² Second, agencies such as the MoEF, which is charged with carrying out certain functions, is not authorized to impose regulations on other public agencies. This is particularly problematic with respect to wastewater discharges, solid waste disposal and EIAs. Indeed, the Seventh Plan acknowledges conflicts of authority, duty and responsibility among organizations related to the environment.⁶⁰³

Moreover, a survey of public officials found in those years that 75% lack adequate information on EIAs; only 5% can translate legal arrangements on environmental protection into practice; 35% have no notion of whether laws are sufficient; 21% feel the laws do not clearly identify implementing agencies; 73% say their colleagues have no idea about the Environment Act; and 94% have not accessed the Act's regulations.⁶⁰⁴

3.1.2. Organizational Misfit

Contrasts between the functions of the MoEF and lack of necessary equipment for properly performing its duties have led to various deficiencies. In particular, as its structure allows activity only through political power, the MoEF could not function as effectively as it should. Similarly, the Councils for Preservation of Natural and Cultural Entities are also hampered:

⁶⁰¹ National Environmental Action of Turkey, 1999, Ankara

⁶⁰² Ibid.

⁶⁰³ State Planning Organization, "Seventh Five Year Development Plan", State Planning Organization Pub., Ankara, 1996. Web: <http://ekutup.dpt.gov.tr/plan7.pdf>

⁶⁰⁴ Mustafa Önen, "Çevre Mevzuatı ve Kamu Yöneticileri: Bir Araştırmanın Bulguları", *Amme İdaresi Dergisi*, Vol. 28, No. 4, December 1995, Ankara

- the MoEF, local governments and professional and voluntary organizations have no representation on the Central Committee and regional committees
- international documents are rarely invoked to identify special areas;
- property rights, financing, the use of economic instruments, and private sector involvement are all problematic issues; and
- the division of authority among the Ministries of Environment, Culture and Forestry is ambiguous.⁶⁰⁵

Local authorities have limited human resources to undertake their responsibilities. Only 10% of all public employees worked at the local level as compared to 31% in Germany, 60% in the U.S. and 65% in Japan. This situation was further weakened as political patronage often plays a role in the selection, appointment and promotion of municipal staff.⁶⁰⁶ Finally, local governments were not autonomous in their ability to set salaries for qualified personnel, create or eliminate positions as needed. Also, for solid waste management, the two most common approaches adopted in other countries (contracting collection services and concession contracts for developing and operating waste disposal facilities) were difficult to implement.

NGOs faced constraints that affect their ability to participate. A 1996 survey found poor relations with Government, which only allows them (especially professional organizations) limited participation in official bodies, decision-making and implementation processes. They also encountered problems with the mass media, and with other organizations⁶⁰⁷. In addition, they had difficulties mobilizing membership, developing proposals, financing activities and technical equipment.

3.1.3. Participative Misfit

Units within the MoEF seek public participation in environmental decision-making, but they were limited by administrative procedures. For instance, representatives of voluntary organizations must be invited by the Minister to the Environment Council and together can number no more than twenty five. Also, the Environment Council is defined as a consultative

⁶⁰⁵ National Environmental Action of Turkey, 1999, Ankara

⁶⁰⁶ TUSIAD "Local Government in Turkey: Problems and Solutions (Executive Summary)" TUSIAD Publication No. T/96.5.198, 1996, Istanbul

⁶⁰⁷ Aydın Uğur, "STK'lara Eleştirisi Merceğiyle Bakılınca", Sivil Forum 1996.

organ and its decisions were only effective when they were approved by the Minister. Further, the composition of the Environment Council, Higher Council for Environment, and the Local Environmental Councils was incomplete as it had only a limited number of engineers, architects, planners, health personnel, workers producing goods and services, artisans and craftsmen. Another shortcoming was the overriding power of Government representatives, especially in the Local Environmental Councils. Various legislative arrangements that were introduced to ensure the right to participate actually limit the participation of scientists, teachers, government employees, and students. Transparency was also a problem, and citizens were often unaware of how decisions were made or how they could participate in the process. Moreover, Government information about environmental conditions, policies, programs, and projects is not readily available.

3.1.4. Misfit in Administrative Instruments

Although numerous plans were developed, their usefulness was limited. For example, urban development plans did not keep pace with rapid population growth and changes in settlement patterns, and were therefore irrelevant. The plans were also confined to physical dimensions, not integrated with projections and targets of other plans, and were frequently changed. Environmental plans were created by the Ministry of Public Works and Settlement, addressing local issues, and not necessarily complying with environmental issues that are of concern to the MoEF. This led to conflicts. Moreover, a conflict of authority and responsibility existed with respect to devising plans and implementing them. The documents often lacked data and inappropriate planning techniques. According to the Seventh Plan, the results were “irrational decisions in the development and distribution of national resources and failure in directing local investments to proper sectors and site selections.”

Regulatory capacities as well as monitoring/evaluation capabilities of the MoEF and Local Environmental Councils were not sufficient for effective environmental management at the local level which was relatively more important for effective environmental management. Therefore, there was a need to strengthen provincial level capacity to support development of environmental protection and management activities operated by municipalities. This could include urban pollution abatement strategies and local environmental action plans, monitoring and evaluation of environmental conditions, permitting and enforcement, and development of

financing mechanisms for environmental management. The latter was especially important as municipal revenue raising capacity is currently weak

Equally problematic, the EIAs was lacking various critical inputs, such as a reliable database, baseline and inventory studies on environmental conditions, sufficient budgets and qualified professionals in the public sector to prepare them properly, and mandatory monitoring and auditing mitigation measures. Also, some public agencies did not want to apply EIA procedures for public investments. In addition, they are hampered by lengthy periods for assessment, lack of monitoring to evaluate and enforce compliance with mitigating measures, insufficient public participation, and conflicting authority and responsibility among units that make public investment decisions.

There were limited inventories carried out by Scientific & Technical Research Institute of Turkey about environmental research and development conducted by the multitude of R & D organizations and units. However, these inventories needed to be updated and practical applications as well as their outcomes needed to be monitored. This situation precluded analysis on the utility of such research and a proper cost-benefit analysis.⁶⁰⁸ Thus, it was difficult under these conditions to develop policies and strategies for improving environment-related R&D.

Although numerous environmental education and training programs and courses exist, the problem was that the techniques and equipment used and the information disseminated are often outdated, unsuited for the target population, and of poor quality. These deficiencies were striking, especially with respect to explanations about the cause of environmental problems. Thus, desired returns from education had not been obtained nor has public behavior been altered.

The collections of economic instruments used successfully in other countries were applied in Turkey in a very limited way. These included user charges based on the long-run social cost of providing services, development taxes linked to environmental improvements, charges on polluting products, performance bonds, effluent charges imposed within a watershed or airshed, and differentiated taxes to discourage the use of polluting fuels.⁶⁰⁹ However, these

⁶⁰⁸ National Environmental Action of Turkey, 1999, Ankara
⁶⁰⁹ OECD; "Environmental Policies in Turkey", 1992, Paris.

measures (both incentives and fines) had lost their effectiveness over time due to inflation. The environmental cleansing tax had been increased at just half the inflation rate, so in real terms there is a decline in revenues.

Despite the broad spectrum of financing sources, environmental management, particularly at the local level, was seriously hampered. Local governments' share of the general budget and tax revenues was only 3.22% of GNP, or 12% of all public spending. They were continually strapped because of the inadequacy of their funding and the existence of but few schemes to coordinate municipal and Government efforts.

The shortage of finances was exacerbated by tax evasion, limited enforcement powers, low property tax rates, and the low limit on private cost-sharing for infrastructure investments. As noted in the Seventh Plan, municipalities could not collect a substantial part of their tax and non-tax revenues from residents due to the political nature of increasing tariffs. Thus, the problem was more the inability to set rates and collect revenues, than taxpayer unwillingness to pay. As a result, municipalities had a difficult time increasing investments for environmental protection and management.

In many respects, the situation in villages was worse. In 1992, revenue per village was only about TL 15.2 million⁶¹⁰ and a 1924 Village Law did not permit activities that could solve environmental problems. Thus, according to 1993 data, the percent of villages with adequate drinking water varied from 46%- 95%, while the national average was 54%.⁶¹¹ The above constraints had important consequences for Turkey's ability to manage and solve its environmental problems. Many of these outcomes were interrelated.

In terms of legislation the misfit between Turkey and the EU was considerable; although Turkey had changed its environment code, the misfit was especially apparent in the conception of environment and applicability of the articles of the code. Moreover, the public officials, who would be responsible for application, were poorly informed about the change in environment code and related adjustments.

610 State Planning Organization; Seventh Five Year Development Plan (1996-2000), 1995a, Ankara

611 State Planning Organization "İller İtibariyle Çeşitli Göstergeler, Bölgesel Gelişme ve Yapısal Uyum Genel Müdürlüğü, 1995b, Ankara

There was also a substantial misfit in organizational structure between Turkey and the EU. The existing organizational structure about environment seemed adequate, but almost all of them lack necessary instruments to function properly. They mostly suffer from poor representation, financing and economic problems, overlapping of authorities of different organizations and inadequacy in quantity and quality of the employees. In addition to public organizations, the NGOs also had problems. Especially participating in decision making and implementation procedures and lack of instruments and qualified personnel had been the main problematic areas in NGOs.

In terms of participation a significant misfit could be observed. Although it has been anticipated by the units within the organizational structure of environment, the administrative procedures constrain the public participation to a large extent.

Efficiency of administrative instruments was too poor compared to EU standards, which caused a major misfit. The plans, which are main instruments in many fields of Turkish public administration, were far from usefulness. They lacked data and planning technique, thus they cause clash of authority between different organizations and therefore they usually were irrelevant. Additionally, regulatory, monitoring and evaluation capacity of both central and local public organizations were insufficient. Moreover, the EIAs, one of the most important instruments in determining environmental problems and taking action against them, were lacking various critical inputs, such as reliable data and inventory, sufficient budgets and qualified professionals.

In almost all fields of environmental policy there is an extensive amount of misfit between Turkey and the EU. Thus, it is easily argued that the goodness of fit between the EU and Turkey allows an intense Europeanization. In other words, the European norms, rules, and the collective understandings attached to them are largely incompatible with those at Turkey; thus, they gave rise to problems of compliance or effective implementation. The two conditions for expecting domestic changes in response to Europeanization, which are 'misfit' or 'incompatibility' between European processes, policies and institutions, on the one hand, and national level processes, policies and institutions on the other and a range of facilitating factors responds to the adaptational pressures, are existed in our case. Thus, these conditions are suitable to continue research on Europeanization and institutional change in environmental policy in Turkey.

3.2. Adaptational Pressures from the EU on the Environmental Policy in Turkey

Measuring compatibility of domestic structures to that of the European-level or multi-level mode governance has been a critical feature of Europeanization literature. This is an attempt to assess the ‘goodness of fit’ between the institutions and processes of European integration and the institutions and processes at the Turkish state level.⁶¹² Risse, Cowles, and Caporaso label this as ‘adaptational pressure’ which they define as “the extent to which domestic institutions would have to change in order to comply with European rules and policies”.⁶¹³ For Hix and Goetz, adaptational pressure is known as ‘catalyst’ in which European-level governance acts to ‘produce new institutional forms’ at the state-level.⁶¹⁴ This fit not only applies to policy output but to institutions and other policymaking and formulating structures as well.

European-level governance may impact domestic structures by providing a new structure of opportunities for domestic actors. Domestic actors may seek to use the very existence of EU-level of governance to bypass, reinforce, or otherwise alter their participation and solidarity to state-level structures.⁶¹⁵ Actors will do this when there is advantage to do so. Hix and Goetz suggest three such instances. First, actors may exit the domestic arena for the European level when they are blocked from achieving a desired policy or outcome at the domestic one. Second and related to the first, actors may seek to use the European level to veto domestic actions. Third, actors may use the European level to gain an informational advantage in the domestic arena by framing debates and agendas due to greater conformity to and knowledge of European level governance.⁶¹⁶ In this section the progress reports published by the European Commission for Turkey and Accession Partnership Documents issued by the European Council would be analyzed to find out the degree of ‘goodness of fit’ between the EU and Turkey on environmental policy and measure the strength of adaptational pressure made by the EU.

⁶¹² Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, *op. cit.* 2001; Adrienne Héritier, *op. Cit.* 1999; Robert Harmsen, *op. Cit.* 2000, *op. cit.* 2003; Vivien Ann Schmidt, *op. cit.* 2006; Tanja A Börzel and Thomas Risse-Kappen *op. cit.* 2003.

⁶¹³ Thomas Risse-Kappen, Maria Green Cowles, and James A. Caporaso, *op. cit.* 2001, p. 6.

⁶¹⁴ Simon Hix and Klaus H. Goetz, *op. cit.* 2000, p. 11.

⁶¹⁵ *Ibid.*, p. 12

⁶¹⁶ *Ibid.*, p. 12 – 13.

3.2.1. The Annual Formal Pressure from the European Commission: the Progress Reports

In 1998 progress report⁶¹⁷ the environmental situation in Turkey was seen quite problematic. The worst problems indicated by the 1998 report were industrial and urban pollution and sustainable management of the coastline and natural resources. According to the report the law in Turkey was very different from that in the Community, particularly in terms of standards, monitoring requirements and methods of measurement. Shortcomings were particularly notable in the areas of industrial pollution, dangerous substances, genetically modified organisms, nuclear safety and access to information about the environment. On the other hand the Report appreciated the efforts have been made to take over the *acquis* as it applies to waste, air and water protection, nature conservation and environmental impact assessments. The EU acknowledges The National Environmental Action Plan as it set out a number of important priorities but it was claimed in the progress report that it devoted little attention to adoption of the *Acquis Communautaire*. Nevertheless the EU conferred Turkey right in slow adoption of *acquis* as complete adoption of the *acquis* was still only a long-term prospect and would entail large-scale investment for which detailed estimates were lacking. Implementation of the law according to the report was very poor. Administrative system in Turkey for environmental issues were seen insufficient and inefficient and according to the report national and local structures needed extensive modernization in terms of organization, equipment and qualified staff, and there needed to be a clearer division of responsibilities between different bodies.

In the European strategy, as it was stated in the 1998 progress report,⁶¹⁸ the Commission put forward a set of cooperation measures designed to bring environmental protection in Turkey to a level closer to that prevailing in the European Union. There was also considerable emphasis on the approximation of laws. The report also stressed that to ensure the administrative and financial cooperation measures are as effective as possible it has been agreed that Turkey should draw up a national plan for its adoption of the *acquis*.

⁶¹⁷ Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 1998.

⁶¹⁸ *Ibid.*

The 1999 Progress Report⁶¹⁹ repeated that the 1998 regular report indicated the Turkish law was very different from that of the Union, particularly in terms of standards, monitoring requirements and methods of measurement, and that the implementation of the law left much to be desired. It also underlined that the May 1998 national environmental action plan devoted little attention to adoption of the *acquis*. Again 1999 report stated that complete adoption of the environmental *Acquis Communautaire* remained a long-term prospect. Moreover the report indicated that since the last Regular report, no evidence of progress in adopting the *acquis* was apparent in areas such as water, nature protection, waste incineration, industrial pollution control and risk management, chemicals, ozone depleting substances, nuclear safety and radiation protection.

The 1999 progress report acknowledged Turkey's efforts for revision of the regulations on the protection of air quality, medical waste control and noise control, taking into account EC norms and the prevailing conditions in Turkey. The report also mentioned the production or marketing of genetically modified organisms (GMOs) and stated that they were not permitted yet. It also refers the works on making acts and regulations to control GMOs by the appropriate ministries following receipt in 1998 of the first application to import genetically modified potato, maize and cotton.

The 1999 report appreciated Turkey as she continued to play an active role in the Black Sea environmental co-operation and her Chairmanship of the Istanbul Commission set up under the 1992 Bucharest convention for the protection of the Black Sea.

The report stated that the Community program LIFE-Third Countries continued to be used to fund environmental projects complying with the aims of Community policy and legislation with three new projects having been agreed in 1999. According to 1999 report Turkey had responded positively to the European strategy by making concrete propositions for enhanced environmental co-operation. Further progress would be required for the adoption of financial regulations providing support for implementation of the European strategy, said the report.

Finally the 1999 Progress Report announces that in March 1999, Turkey formally applied to participate in the activities of the European Environment Agency (EEA) and declared that in

⁶¹⁹ Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 1999.

July 1999 the Commission adopted a draft proposal for a Council Decision concerning the negotiations on behalf of the Community on the participation of all candidate countries in the EEA.⁶²⁰

The progress report of 2000⁶²¹ remarked in the opening paragraph that since the last Regular report no evidence of progress in adopting the *acquis* was apparent in areas such as air quality, waste management, water quality, nature protection, industrial pollution control and risk management, chemicals, GMO's, ozone depleting substances, nuclear safety and radiation protection.

The Progress report of 2000 asserted that Turkish legislation was very different from that of the Community in particular in terms of standards, monitoring requirements and methods of measurement. It is stated in the report that complete adoption of the environmental *acquis* remains a long-term prospect and the implementation of the laws left much to be desired. The report also reminded the importance of to carry out detailed compliance checks of these laws in order to ensure full transposition of EC environmental directives.

The 2000 progress report asserted that in the field of air quality legislation still needed to be harmonized with the *acquis*. Moreover, the Turkish air quality monitoring system needed further improvement to make it compatible with the EC *acquis*.

The progress report indicated that Waste management is one of the most problematic areas in particular as regards implementation of related legislation. A large percentage of household waste (93%) was uncontrolled waste, being illegally dumped.⁶²² Substantial efforts needed to be undertaken to comply with Community standards.

The report acknowledged Turkey's efforts about water quality. The 7th and 8th Five Years Development Plan underlined the need for a new legal framework law on Water Resources and for bringing drink water standards and wastewater discharging in line with the *acquis*. However, the report maintained that Turkey's water legislation does not seem to be compatible with the Community *acquis*.

⁶²⁰ Ibid.

⁶²¹ Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2000.

⁶²² Ibid.

The nature protection in Turkey was seen an important area in 2000 progress report and the EU suggested Turkey in order to preserve her rich assets in biodiversity; she needed to pay particular attention in the pre-accession process. Furthermore, according to the report, Turkey would need to make significant efforts to align its legislation with the Community nature protection legislation.

The report openly announced that in the area of industrial pollution control and risk management legislation in line with the *acquis* needed to be introduced. The progress report of 2000 reminded that EC directives in the field of chemicals were not fully transposed. The Regulation on the Control of Dangerous Chemical Substances and Preparations of 1993 was not compatible with Community legislation (e.g. lack of provisions on risk assessment and classification system).⁶²³ Additionally, the report signaled that Turkey still lacked a general inventory of chemical substances. Turkish legislation, as stated in the report, genetically modified organisms was not aligned with the *acquis*.

Concerning nuclear safety, the progress report signified that Turkish legislation was not fully in line with the *acquis*, this in particular as regards reporting and monitoring requirements. The efforts of the Turkish Atomic Energy Authority was appreciated by the report, concerning radiation protection had defined a strategy of licensing, radiation shielding of all equipment and development of local safety procedures in all establishments using these sources.

The 2000 progress report considered the administrative capacity at national and regional level as a matter of concern. The report underlined the problems in institutional setting as environmental rules seemed not ensured due to the involvement of various bodies and institutions at different levels and thus conflicting interests and responsibilities, lack of trained and specialized staff, lack of financial resources and lack of equipment. The progress demanded establishing monitoring networks and permitting procedures as well as environmental inspectorates with strong and well-determined powers. The 2000 report stresses the need for penalties in case of non-compliance. The report noted that awareness about environmental issues and knowledge about EC requirements was generally lacking. The progress report also warned the municipalities to speed up their preparations for EC environmental policy, in particular as regards training.

⁶²³ Ibid.

Finally the 2000 progress report remarked that Turkey's environmental investments had to be a larger extent focus on the concrete implementation of EC environmental directives, based on a comprehensive investment strategy. The existence of a national fund to promote environmental investments seemed important in this regard.

The 2001 progress report⁶²⁴ noted that since the last Regular Report, Turkey had made no substantial progress in transposing the *acquis* in this field, neither as regards horizontal legislation, nor in areas such as air quality, waste management, water quality, nature protection, industrial pollution and risk management, genetically modified organisms, noise from vehicles and machinery, and nuclear safety and radiation protection.

As regards administrative capacity, the 2001 progress report admitted that Turkey adopted a law on the redefinition of the main departments in the Ministry of Environment, which establishes local branches of the Ministry. This was considered as an important first step by the 2001 report in ensuring proper enforcement of environmental legislation.

In the field of chemicals, it discerned by the report that the Regulation on the Control of Dangerous Chemical Substances and Products, which entered into force in 1993, was amended in April 2001. Under this amendment, definitions, risk phrases and combinations, safety phrases and combinations, danger symbols and their standard wording have been rearranged. However, the report stated that full alignment with EC legislation was not yet achieved.

Turkish legislation was still considered very different from that of the *acquis* in particular in terms of standards, monitoring requirements and methods of measurement by the 2001 report. Especially, as noted by the report, implementation and enforcement capacity needed to be upgraded substantially. It was also remarked by the 2001 report that carrying out detailed compliance checks of existing laws in order to ensure full transposition of EC environmental directives was important.

⁶²⁴ Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2001.

In the field of horizontal legislation, the 2001 report acknowledged the draft Framework law approved by the Environment Committee of the Parliament. The 2001 report expected that this draft law, which amended the Environment Law of 1983, creates a new legislative framework in the field of environment. According the 2001 report, this represented a significant step forward, as it would introduce the legal framework needed to transpose the EC *acquis*. This amendment considered important by the 2001 report as the purpose of this draft law is to integrate the Sustainable Development Principle and to provide for the implementation of the Strategic Environmental Impact Assessment Procedure for environmental policies, plans and programs. The 2001 report attached importance to the amendment since the law also revised provisions on nature protection, and provided for more effective environmental monitoring and supervision by the Ministry of the Environment, with stricter penalties for non-compliance. Moreover, it ensured public access to environmental information and the provisions dealing with the Environmental Pollution Prevention Fund have been revised and level of funding had been increased.

In the fields of air quality, waste management, water quality, nature protection, industrial pollution control and risk management and nuclear safety the 2001 report maintained that legislation still needed to be aligned with the *acquis*.

The progress report of 2001 discerned that in the field of radiation protection, the Turkish Atomic Energy Authority had defined a strategy for licensing, radiation shielding of all equipment and development of local safety procedures in all establishments.

The 2001 report suggested that Turkey's environmental investments had to focus on, to a larger extent, the implementation of EC environmental directives, based on a comprehensive investment strategy.⁶²⁵ About the administrative capacity at national and regional level the 2001 report maintained the concerns spelled out in the progress report of 2000.

The 2002 Progress report⁶²⁶ acknowledged that Turkey had started to make progress in terms of transposition of the EC environmental *acquis* and the improvement of administrative capacities.

⁶²⁵ Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2001.

⁶²⁶ Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2002.

With regard to the integration of environmental considerations into other policies, the 2002 report appreciated Turkey, since according to the new Public Procurement Law, adopted in January 2002, a positive Environmental Impact Assessment Report (EIA) was required before launching public procurement procedures. Moreover, a similar obligation had been introduced for investors in industrial zones through an amendment to the Law for Establishment of Industrial Zones and Organized Industrial Areas adopted in January 2002.

In the field of horizontal legislation, the report noted that, a new EIA regulation was adopted by the Parliament in June 2002. This regulation transposed almost fully the provisions of the Directive on Environmental Impact Assessment. The 2002 progress report stated that as regards waste management, air and water quality, noise and nuclear safety no progress can be reported.

In the field of nature protection, the 2002 report indicated that the Regulation on the Implementation of the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES Convention) was adopted in December 2001. As a result, the Ministry of Environment was responsible for the overall co-ordination and definition of measures to implement the Convention. Implementing legislation to complement the trade aspects of this Regulation (i.e. Communiqués on the Import of Restricted and Prohibited Goods) was amended in April 2002. A CITES Convention species list concerning international trade in endangered species of wild flora and fauna had entered into force. A Regulation on the Conservation of Wetlands was adopted in January 2002. This Regulation, according to the 2002 report, partially complied with the provisions of the Birds, Water Framework and Habitat *acquis*.

The 2002 report admitted Turkey's progress with regard to transposition of the *acquis* on industrial pollution through the adoption, in December 2001, of a Regulation on Soil Pollution Control and in the field of genetically modified organisms and chemicals, the Regulation on Dangerous Chemicals was amended in March 2002. It, according to the report, partially transposed the relevant *acquis* in the field.

The steps taken by Turkey for strengthening of its administrative capacity was appreciated by the 2002 report. A law on the redefinition of the functions of the main departments in the Ministry of Environment was adopted. This law would enhance proper implementation and

enforcement of environmental legislation at local level. Following its adoption, the number of Environment Directorates at provincial level increased from 30 to 81.⁶²⁷

A new Regulation on Environmental Inspection (REI) entered into force in January 2002. It was considered by the 2002 report as a positive step towards increasing Turkish administrative capacity to implement the *acquis*. It defined the roles and responsibilities of each institution involved in environmental inspections, and introduced administrative penalties. Moreover, the REI detailed the obligations related to internal environmental inspection for public and private holdings. According to the REI, each holding would have to produce its own annual inspection reports and provide data on wastes and disposal. An Environmental Inspectorate Department was established at central level with 13 new staff.

Furthermore, REI gives inspection responsibilities to the Presidency of the Inspectorate Committee, to the General Directorate for Environmental Pollution Abatement and Control, to the General Directorate for Environmental Impact Assessment, to the Environment Directorates at provincial level and to the Authority for Special Protected Areas.

Moreover, the 2002 report also considered effectively functioning of an Environmental Reference Laboratory, started in 2001, in Ankara. The number of laboratory staff was increased from 17 to 39 and additional new equipment was installed.⁶²⁸

The 2002 Progress Report stresses that although steps had been taken in the field of horizontal legislation, nature protection and at the level of administrative capacity, Turkey needed to accelerate its efforts as regards water quality, industrial pollution and risk management, air quality, noise, genetically modified organisms, waste management and nuclear safety and radiation protection.

The 2002 report noted that Turkey had not yet ratified the Kyoto protocol. In the field of air quality, the 2002 report indicated that Turkish legislation needed to be aligned with the *acquis*, and the Turkish air quality monitoring system needs to be upgraded. Although the Turkish legislation in the field of waste management is largely in line with the *acquis*, stated the 2002 progress report, further efforts were needed with respect to implementation.

⁶²⁷ Ibid.

⁶²⁸ Ibid.

As regards water quality, the 2002 Progress Report reminded that the 7th and 8th Five Years Development Plans stressed the need for a new framework law on water resources and for bringing drinking water standards and wastewater discharge into line with the *acquis*.

Despite the adoption of a number of regulations related to nature protection, the 2002 report drew attention on lack of full harmonization with the *acquis*. The report emphasized the need of a framework law on nature protection and implementing legislation transposing the provisions of the Birds and Habitat *acquis*.

On chemicals, stated the report, further efforts had to be made to achieve full harmonization. With regard to pollution control, while some progress has been made, full alignment will require further efforts.

The 2002 Progress Report emphasized significance of the principle of integration both at national and at Community level. The report recommended Turkey to continue integrating environmental protection requirements into the definition and implementation of all other sectoral policies so as to promote sustainable development.

The 2002 report asserted that the Ministry of Environment (MoE) made significant progress in strengthening its administrative capacity. However, the report remained cautious assessing the impact of the measures taken on the actual enforcement of environmental legislation. The 2002 Report admitted the involvement of several institutions in the management of environmental policies; however it noted that efforts towards effective implementation of environmental rules, including training of specialized staff and purchase of equipment, were needed.⁶²⁹

In its 1998 Report, the Commission noted that despite progress made in the adoption of legislation, conservation schemes and institutional machinery, the standard of environmental protection in Turkey remained a matter of concern, especially with regard to industrial and urban pollution and sustainable management of the coastline and natural resources. It was pointed out that while the Turkish law differed from the *acquis* in a number of important

⁶²⁹ Ibid.

areas, efforts could be noted with regard to waste, air and water protection, nature conservation and environmental impact assessments. It was indicated that implementation of the law had met serious obstacles.

The 2002 Progress Report denoted that since the 1998 Report, Turkey had made limited progress in transposing the Community *acquis* in the field of environment. The main progress was linked to the adoption of a new Environment Framework law amending the existing framework legislation of 1983. Furthermore, progress had been noticed in the field of administrative capacity since a law that re-defines the responsibilities and organization of the Ministry of Environment was adopted. In a few sectoral areas, such as chemical legislation, some limited progress could be reported. In 2002, progress was more substantial as described above.

The 2002 Report⁶³⁰ suggested Turkey to focus further efforts on the transposition and implementation of the environment *acquis*, particularly in the areas of Air quality, Waste Management, Water quality, Industrial Pollution, Nature protection and Horizontal legislation.

Since the last regular report no progress could be observed by the 2003 Progress Report⁶³¹ in the fields of integration of environmental protection into other policies, water quality, industrial pollution and risk management.

The 2003 Progress Report observed limited progress in the field of horizontal legislation. The Report noted that public consultation mechanisms related to environmental impact assessment were largely in line with EC requirements, but further efforts were needed concerning transboundary issues. Implementation was a matter of concern. The 2003 report indicated that since 1 March 2003 full responsibility for screening decisions has been delegated to the Local Environmental Boards.

As regards waste management, the 2003 Report stated that a law was adopted on the ratification of the changes made to the Basel Convention on the control of transboundary movements of hazardous wastes and their disposal in June 2003. In the field of air quality,

⁶³⁰ Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2002.

⁶³¹ Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2003.

the Report asserted that in January 2003 Turkey adopted legislation relating to emissions from non-road mobile machinery. As regards to nature protection, the 2003 Report announced that a Ministerial Decree on the import and export of endangered species (CITES Convention) was adopted in February 2003, and the European Landscape Agreement was ratified in June 2003.

In the field of genetically modified organisms, the 2003 Progress declared that the Cartagena Protocol on biosafety (Biodiversity Convention) was ratified in June 2003.⁶³² As regards the chemicals, two laws on substances that deplete the ozone layer (Montreal Protocol) were adopted in June 2003. As regards noise, the 2003 Report stated that legislation relating to noise emissions from outdoor equipment and household appliances was adopted in January and February 2003. In the field of nuclear safety and radiation protection, the progress report announces that a regulation on the provision of information to the general public in the event of a radiological emergency has been adopted.

The 2003 Progress Report signified that Turkey had taken some measures to strengthen its administrative capacity. A law on the establishment of the Ministry of the Environment and Forestry adopted in May 2003 merges the two existing ministries. The 2003 Report indicated that the new law defined the roles and responsibilities of the Ministry of the Environment and Forestry on the basis of the original laws on their establishment and reduced the overlaps in the respective responsibilities and implementation. The 2003 Report continued as the law provided for a threefold increase over previous Ministry of the Environment staffing levels, but it needed to be seen how this staff will be allocated. Moreover, the 2003 Progress Report specified that an addendum to the Regulation on Environmental Inspection entered into force in January 2003, in order to improve the quality of the inspectors by laying down new job profiles.

The 2003 Progress Report recognized some limited steps taken by Turkey in the fields of air quality, nature protection, chemicals, noise and nuclear safety and radiation protection to adopt legislation and to strengthen administrative capacity.⁶³³ However, the Report emphasized that Turkey needs to make greater efforts as regards both legal alignment and implementation in all sub-sectors of the chapter. The Report repeated that Turkey has not yet ratified the Kyoto Protocol as it was said in previous reports. In the field of air quality, the

⁶³² Ibid.

⁶³³ Ibid.

Report suggested that the legislation needed to be aligned with the *acquis*, and steps taken to ensure implementation, including upgrading of the air quality monitoring system.

Although legislation in the field of waste management is to some degree in line with the *acquis*, the 2003 Report recommended further efforts with respect to transposition and implementation. Sufficient financial resources need to be allocated to the sector. As regards water quality, the Report advised further efforts to transpose and implement the *acquis*, including a new framework law on water resources and to bring drinking water and wastewater discharge standards in line with the *acquis*.

Despite the adoption of a number of regulations on nature protection, according to the 2003 Progress Report legal harmonization remained low. A framework law on nature protection and implementing legislation transposing the provisions of the birds and habitats *acquis* was recommended by the 2003 Report. Further efforts were suggested by the 2003 Progress Report as regards industrial pollution and risk management, full alignment and implementation.⁶³⁴ As regards chemicals and genetically modified organisms, further efforts were offered to achieve harmonization and implementation of the measures. In the field of nuclear safety and radiation protection, despite some legislative progress, the 2003 Progress Report suggested further efforts to achieve full legal harmonization. Steps needed to be taken to enhance implementation.

It is recommended Turkey to continue integrating environmental protection requirements into the definition and implementation of all other policies so as to promote sustainable development by the 2003 Progress Report. The creation of an integrated Ministry of the Environment and Forestry was considered a valuable step to strengthen administrative capacity by the 2003 Report.⁶³⁵ The Report suggested further efforts towards effective implementation of environmental rules, especially recruitment and training of specialized staff and purchase of equipment.

The 2004 Regular Progress Report stated that some progress has been made with regard to transposition since last report. Since the last regular report no progress could be observed by

⁶³⁴ Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2003

⁶³⁵ *Ibid.*

the 2004 Progress Report⁶³⁶ in the fields of integration of environmental protection into other policies, genetically modified organisms, noise, industrial pollution and risk management.

In the field of horizontal legislation, the 2004 Report noted a limited progress. A new regulation on environmental impact assessment and a law and an implementing regulation on Access to information were adopted. With regard to horizontal legislation, according to the 2004 Report, the new environmental impact assessment regulation appears to be more in line with the *acquis*. However, the 2004 Report drew attention on a number of issues such as transboundary impact assessment and time allocated for public consultation. As applications need to be processed in a short period of time, this may have an impact on the quality of the assessments. Implementation of horizontal legislation still requires significant further efforts. Moreover, Turkey ratified the United Nations Framework Convention on Climate Change. However, the 2004 Report marked that Turkey had not ratified the Kyoto Protocol. As regards air quality, the 2004 Report pointed out that a regulation on the quality of petrol and diesel fuels and legislation on the availability of consumer information on fuel economy and CO₂ emissions of new passenger cars were adopted.⁶³⁷ In addition, a communiqué on the quality of petrol and diesel fuels was enacted in June 2004. A regulation on precautionary measures against emissions from engines using diesel and pressurized petrol gases was amended. In the field of air quality, further legislation needs to be adopted and steps taken to start implementation, including upgrading of air quality monitoring. In the area of waste management, the 2004 Report pointed some progress. A law was adopted on pollution abatement inherited from disposal and transboundary movements of hazardous waste in the Mediterranean Sea.⁶³⁸ Also, legislation was adopted on packaging waste, construction waste including excavation soil and rubble control, waste oils, and on management of waste collection facilities in ports and harbors, and on batteries and accumulators. Although legislation in the field of waste management is to some degree advanced, further efforts were needed to prepare a national strategy and waste management plan. As regards water quality, the 2004 Report marked very limited progress. A regulation was adopted on the protection of water resources against nitrates. In the field of water quality, further efforts are needed to transpose and implement the *acquis*, including a new framework law on the management of water resources in line with the water framework Directive. Cross-border cooperation needs

⁶³⁶ Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2004

⁶³⁷ Ibid.

⁶³⁸ Ibid.

to be stepped up with the neighboring countries in this regard. In nature protection, the 2004 Report remarked limited progress. An amendment of the Implementing Regulation on the implementation of the CITES Convention was adopted.⁶³⁹ Despite the adoption of a number of regulations on nature protection, the level of legal harmonization remains very low. A framework law on nature protection and implementing legislation on birds and habitats need to be adopted. The continuing loss of habitats is a cause of concern. Implementation and enforcement of legislation needs to be improved. Special attention needs to be paid to legislation in other policy areas having a link with nature protection. As regards chemicals, limited progress can be reported by the 2004 Report, as a decree on prohibition of use and marketing of pesticides and similar products was adopted. A regulation was adopted on the establishment, management and inspection of laboratories that plan to breed test animals and carry out tests for scientific and other purposes. As regards nuclear safety and radiation protection, the 2004 Report indicated limited progress. A regulation on the waste produced from the use of radioactive substances was adopted. The 2004 Report admitted that Turkey took some measures to strengthen its administrative capacity as a result of merging the Ministry of Environment and Ministry of Forest in 2003. However, the 2004 report remarked that there has been very limited progress in enhancing the overall administrative capacity, including addressing the issue of overlapping responsibilities and implementation. Furthermore, the 2004 Report reminded that a regulation has been adopted on the establishment of a special commission to provide scientific support on environment issues.

The 2004 Report stressed that Turkey needed to take steps to integrate environmental protection requirements into the definition and implementation of all other policies, and to promote sustainable development. The establishment of an integrated Ministry of the Environment and Forestry was considered a positive step in relation to administrative capacity by the 2004 Report. However, according to the 2004 Report, this integration had not been effective in enhancing implementation. There were overlaps in competencies between different ministries and institutions, and therefore further efforts were needed. According to the 2004 Report, special attention had to be given to the administrative setup at different levels of the country under the newly proposed local administrative reform law. The overall planning, implementation and enforcement of environmental legislation was considered as a major concern in 2004 Report.⁶⁴⁰ Significant efforts towards effective implementation of

⁶³⁹ Ibid.

⁶⁴⁰ Ibid.

environmental legislation, especially recruitment and training of specialized staff and the purchase of equipment, were suggested by the 2004 Report. Considerable investments need was noted by the 2004 Report to ensure implementation of the environment *acquis*. In this context, the 2004 Report emphasized that all new investments had to comply with the EU environment *acquis*.

The 2005 Progress stated that since last year's Regular Report, some progress had been made in the field of waste management, in the noise sector and nature protection.⁶⁴¹ No substantial progress, according to the 2005 Report, had been made with regard to transposition of the *acquis* in the other environment sectors, industrial pollution control and risk management, chemicals, genetically modified organisms.

In the field of horizontal legislation, the 2005 Report observed very limited progress. As regards to international environmental agreements, the 2005 Report signified that Turkey had not ratified the Kyoto Protocol and had not become a party to the Espoo and Aarhus Conventions. The 2005 Report noted the importance of further efforts for the establishment of a greenhouse gas emission allowance trade scheme as well as the adoption of legislation on Emission Trading. The 2005 Progress Report regards the current legislation on Environmental Impact Assessment (EIA) to be aligned to the *acquis* on most counts, according to the Report trans-boundary requirements remained to be transposed and correct handling of public consultations required further attention.⁶⁴² Additionally, the 2005 Report signified that transposition of the Strategic Environmental Assessment Directive (SEA-Directive) was at a very early stage and needed particular attention.⁶⁴³ The 2005 Progress Report considered transposition and implementation of horizontal legislation a matter of concern.

As regards air quality, the 2005 Report noted limited progress. Regulations on industrial air pollution control and on control of air pollution from domestic heating were adopted. According to the 2005 Report, transposition of the air quality framework legislation was not advanced but transposition of legislation on the pollution from vehicles was rather advanced. The Consumer information Directive was fully transposed and the Quality of Petrol and

⁶⁴¹ Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2005

⁶⁴² Ibid.

⁶⁴³ Ibid.

Diesel Fuels Directive was almost fully transposed.⁶⁴⁴ Further legislation, the 2005 Report recommended, in particular transposing directives on sulphur content of liquid fuels and volatile organic compound emissions needed to be adopted and steps taken to start implementation, including upgrading of air quality monitoring and modeling. The Ministry of Environment and Forest and the Ministry of Health have the responsibility of monitoring air quality parameters. The 2005 Report noted that there was a certain overlapping of monitoring tasks between these two institutions. Overall, the 2005 Report pointed out that transposition and implementation of air quality needed further significant efforts.

With the adoption of an amendment of a regulation on waste batteries and accumulators, a regulation on the control of medical waste, an amendment of an implementing regulation on solid waste as well as of implementing regulations on control of vegetable waste oil and hazardous waste the 2005 Progress Report remarked some progress concerning waste management.

The 2005 Regular Report indicated limited development concerning water quality. Implementing Regulations concerning water for human consumption was adopted and codes of good agricultural practices. According to the 2005 Report, although some aspects of the water quality *acquis* were already covered by the Turkish legislation, transposition remained low except for the Nitrates and Drinking Water Directives. No development in transposition of the Water Framework Directive can be reported and the 2005 Report remarked that significant efforts were required in this regard in order to achieve full compliance by accession. The 2005 Report found the institutional framework for water management complex and weak. According to the report, it did not provide sufficient guarantees for implementation and enforcement and was not organized on a river basin based management. Division of responsibilities for water management among the relevant institutions needed particular attention due to potential overlaps, redundancies and insufficient clarity.

Some progress was observed by the Commission in the area of nature protection. A number of regulations on the establishment of the wildlife conservation and wildlife enhancement areas, as well as a communiqué on permissions and limits controlling the international trade of the bulbous wild plants and regulations on hunting were adopted.⁶⁴⁵ In addition, a national park in

⁶⁴⁴ Ibid.

⁶⁴⁵ Ibid.

Eastern Anatolia and three internationally important wetlands (RAMSAR sites) were established. According to the 2005 Regular Report, despite the adoption of some legislation and declaration of protected areas for the purpose of nature protection, the level of legal harmonization and implementation remained very low; a framework law on nature protection and implementing legislation on birds and habitats need to be adopted. The 2005 Report pointed out that special attention needed to be paid to legislation in other policy areas having a link with nature protection. The 2005 Progress Report noted that institutional framework was complex, divided among several authorities and division of responsibilities among the relevant institutions needed particular attention.

The 2005 Regular Report admitted the progress made as regards noise. An implementing Regulation concerning the assessment and management of environmental noise was adopted. Overall, the level of harmonization was advanced, however, implementation required further efforts and noise maps and action plans needed to be prepared. In the area of forestry the 2005 Report specified limited progress. A communiqué related to the implementation of the national plan to combat desertification was issued by the Ministry of Environment and Forest and a national forestry strategy was developed.⁶⁴⁶ According to the 2005 Report, Turkey has a well developed structure related to forestry issues; however, implementation requires significant further efforts.

Overall, the 2005 Regular Report asserted that Turkey needed to take steps to integrate environmental protection requirements into the definition and implementation of all other policies, and to promote sustainable development. Particular attention was also needed as regards strengthening administrative capacity and coordination mechanisms between the authorities involved in the implementation of environment policy. Considerable investments need to be secured to ensure implementation of the environment *acquis*. In this context, it needs to be stressed that all new investment projects should comply with the EU environment *acquis*.

The 2006 Progress Report indicated that no substantial progress can be observed in the field of horizontal legislation.⁶⁴⁷ The overall level of alignment in this area was limited. Turkey had not ratified the Kyoto Protocol, nor had it transposed the Emissions Trading Directive and

⁶⁴⁶ Ibid.

⁶⁴⁷ Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2006

related decisions. Though some elements were present in the Turkish legislation, no progress can be followed on the transposition and implementation of the environment liability and reporting directives. The 2006 Report noted that no progress had been made as regards further transposition of the directive related to public access to environment information. Some elements of the directive on public participation had been transposed through a new Law on Environment adopted in May 2006. According to the 2006 Report, Turkish legislation on the Environment Impact Assessment excluded trans-boundary consultation requirements. Some activities, such as mining, were not included and public consultation needs improvement.⁶⁴⁸ The 2006 regular Report reminded that Turkey had not become a party to neither the Espoo nor the Aarhus Conventions. No timetable was available with respect to future membership status of these conventions. The 2006 Regular Report asserted that the strategic environmental assessment directive remains to be transposed. Preparations in this area were limited.

As regards air quality legislation, the 2006 Progress Report noted some progress. There had been no progress as regards alignment to the Air Framework Directive and related Directives. However, a twinning project was in progress at that time. The network of monitoring stations in line with *acquis* requirements was established in 36 cities.⁶⁴⁹ According to the 2006 Report, good progress had been made as regards the transposition of the directives relating to quality of petrol and diesel fuels and reduction of sulphur content of certain liquid fuels.⁶⁵⁰ No further progress had been made as regards alignment of the directive on Volatile Organic Compound (VOC) emissions. The National Emission Ceilings directive had not been transposed. According to the 2006 Report preparations in this area required substantial efforts.

The 2006 Regular Report considered the transposition of the *acquis* on waste management well advanced. Alignment with the Waste Framework Directive was high and the Hazardous Waste Directive had been transposed. According to the 2006 Report, further alignment was needed, for example on legislation regarding polychlorinated biphenyls, end-of-life vehicles, waste from electrical/electronic equipment, restriction of certain hazardous substances in electrical and electronic equipment, landfills and waste incineration.⁶⁵¹ The 2006 Report announced that with the support of a twinning project, technical studies were underway as regards further transposition and implementation of a number of waste streams directives as

⁶⁴⁸ Ibid.

⁶⁴⁹ Ibid.

⁶⁵⁰ Ibid.

⁶⁵¹ Ibid.

well as the Landfill directive. The Commission was expecting a national plan on waste management to address remaining shortcomings.

In the field of water quality *acquis* the 2006 Regular Report observed progress. Good progress was made by transposing legislation on urban waste treatment and quality of bathing water. However, the 2006 Report recalled, financing plans remained to be established. The 2006 Report declared that no steps were undertaken to align with the Water Framework Directive to allow new relevant investments to comply with the *acquis*. Nor had Turkey initiated steps to develop trans-boundary water cooperation, in particular with Member States. According to the 2006 Report the level of transposition was low, particularly as regards nitrates, ground water and drinking water. Overall, the 2006 report noted that the institutional capacity remained weakened by an unclear division of responsibilities.

With the adoption of the regulation on the protection of wildlife habitats, the 2006 Progress Report observed some progress in aligning with the *acquis* on nature protection. However, according to the 2006 Report, transposition, implementation and enforcement, remained very low. The continuing rapid loss of habitats caused concern. Legislation in policy areas linked to nature protection required attention. The 2006 Report emphasized that the institutional capacity is weakened by insufficiently clear definition of responsibilities amongst the authorities concerned.

No progress can be reported by the 2006 Regular Report in the area of industrial pollution control and risk management, chemicals, forestry and genetically modified organisms. The 2006 Regular report considered the level of alignment on noise advanced. Implementation was lagging behind, for example in providing financial resources and strengthening the administrative capacity of competent authorities related to the preparation of strategic noise maps and action plans. A timetable for preparations of plans was defined.

Progress was made as regards administrative capacity. According to the 2006 Progress Report, the amended Environmental Law defined a clearer role for the Ministry of Environment and Forestry, allowed for recruitment of additional staff, as well as for additional financial resources in the environment sector.⁶⁵² The introduction of higher fines

⁶⁵² Ibid.

and entry into force of the penal code's provisions envisaging sanctions for environmental crimes are expected by the 2006 Report, to improve inspection and enforcement. Sustainable development, stressed the 2006 Report, needed to be introduced as a cross-cutting policy, in particular in energy, transport and agriculture policies. The amended Law also provided for enhancement of public access to environmental information and liability. Turkey had however, not fulfilled the short term priority to adopt a revised program for transposition and implementation of the *acquis*. According to the 2006 Report, the institutional capacity of the regional environmental authorities and management of human resources needed strengthening.

The 2007 Regular Report noted that a national environmental approximation strategy was adopted by the High Planning Council.⁶⁵³ It included a plan for the transposition, implementation and enforcement of the EU environmental *acquis*, as well as an estimation of related costs.

In the field of horizontal legislation, some progress can be observed by the 2007 Report. The Environmental Impact Assessment (EIA) Directive had been transposed to a large degree. However, according to the 2007 Report, procedures for consulting the public and trans-boundary consultations were not fully aligned. It is announced by the 2007 Report that a circular regulating the import of substances depleting the ozone layer was adopted in accordance with the Montreal Protocol.⁶⁵⁴ With regard to civil protection, an implementing law on intervention and compensation on emergency marine pollution was adopted in line with the *acquis* and the Marpol protocol. Turkey had submitted the Greenhouse Gas Inventory for the years 1990-2004 to the UNFCCC Secretariat. Turkey had not ratified the Kyoto Protocol and was not a party to the Espoo and Aarhus Conventions. The 2007 Report asserted that a greenhouse gas emission allowance trade scheme had not been established and the Emissions Trading Directive was not transposed. The 2007 Regular Report stressed the lack of progress on transposition of environmental liability, public participation, and public access to environmental information. Transposition of the Strategic Environmental Assessment Directive was at a very early stage.

⁶⁵³ Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2007

⁶⁵⁴ *Ibid.*

As regards air quality, limited progress was observed by the 2007 Report. Rules on control of fuel imports with regard to environmental protection were adopted. The network of monitoring stations was expanded. However, according to the 2007 Report, transposition of the air quality framework legislation and related directives was not complete. There was no progress on legislation related to the *acquis* on volatile organic compound emissions, on sulphur content of certain liquid fuels, or on national emission ceilings.

Some progress can be monitored concerning the alignment with the waste management *acquis* by the 2007 Progress Report. A regulation on waste tires and a circular on the control of waste imports were adopted. An amendment to the packaging implementing regulation was adopted. Alignment in this area was considered by the 2007 Report well advanced. However, according to the 2007 Report, progress on directives relating to polychlorinated biphenyls, end-of-life vehicles and waste electrical and electronic equipment was very limited.⁶⁵⁵ The 2007 Progress Report stated that there was no progress regarding the directives on landfill, waste incineration, restrictions of certain hazardous substances in electrical and electronic equipment. Moreover, the 2007 Report remarked that Turkey did not have a national waste management plan.

No development was observed by the 2007 Report concerning water quality, industrial pollution control and risk management, genetically modified organism or on noise. Limited progress can be observed in the area of nature protection by the 2007 Report. Three nature parks, one national park, and twenty-four wildlife rehabilitation areas had been designated as protected areas under national legislation. However, according to the 2007 Regular report, the level of legal harmonization and implementation had remained very low. The rapid loss of habitats was a cause of concern. The 2007 Report signified that a framework law on nature protection and implementing legislation on birds and habitats had not been adopted.

The 2007 Report observed some developments as regards chemicals. A circular on the control of chemicals imports with regard to environmental protection was adopted. Overall, according to the 2007 Report, the level of transposition remained low. The capacity for effective implementation was insufficient. The 2007 Regular report admitted the considerable progress in the area of administrative capacity. Following the amendment of the Environmental Law, a

⁶⁵⁵ Ibid.

substantial number of experts were recruited and trained by the Ministry of Environment and Forestry (MoEF). An environmental fund was established under the MoEF to support environmental projects. A project prioritization methodology had been introduced.

However, according to the 2007 Report, there was no progress on the establishment of a national environmental agency. Responsibilities, such as regards inspection activities, were not clearly defined. Horizontal integration of environmental protection into other policy areas, stressed the 2007 Report, as well as ensuring that new investments comply with the environmental *acquis*, was at an early stage.

In the field of horizontal legislation, the 2008 Progress Report observed some progress.⁶⁵⁶ The Environmental Impact Assessment (EIA) directive had been transposed to a large degree. However, according to the 2008 Report, procedures for consulting the public and trans-boundary consultations were not fully aligned. Turkey had not yet signed the Kyoto Protocol and Turkey was not a party to the Espoo and Aarhus Conventions. The Emissions Trading Directive had not been transposed. A greenhouse gas emission trading scheme had not been established. The 2008 Regular Report indicated that transposition of the Strategic Environmental Assessment (SEA) Directive was at an early stage. There had been no progress on transposition of the *acquis* on environmental liability, public participation and public access to environmental information. The 2008 Report also announced that Turkey had not started negotiations on the memorandum of understanding with on its participation in the Community civil protection financial instrument.⁶⁵⁷

In the case of air quality, the 2008 Progress Report appreciated Turkey for her good progress in alignment with the air quality framework legislation and daughter directives. Progress had also been made on the sulphur content of liquid fuels in domestic heating systems. The administrative capacity for regional air quality had been improved by establishing a clean air centre in Marmara. However, the 2008 Report noted that, no progress had been made on legislation related to the *acquis* on emissions of volatile organic compounds, on the sulphur content of certain liquid fuels or on national emission ceilings.⁶⁵⁸

⁶⁵⁶ Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2008

⁶⁵⁷ Ibid.

⁶⁵⁸ Ibid.

Some progress was followed by the 2008 Report on alignment with the waste management *acquis*. Implementing legislation on polychlorinated biphenyls and on the control of waste oils had been adopted. Furthermore, restriction of use of certain hazardous substances in electrical and electronic equipment and on restoration and management of extractive industry sites had been adopted.⁶⁵⁹ According to the 2008 Progress Report, alignment in this area was well advanced. However, Turkey did not have a national waste management plan. Progress on end-of-life vehicles and waste electrical and electronic equipment had been very limited. Moreover, the 2008 Report remarked that no progress had been made regarding the directives on landfill.

The 2008 Progress Report viewed little progress in the area of water quality. An amendment was made to the legislation on prevention of water pollution. However, according to the 2008 report, the overall level of alignment remained low. The institutional framework for water management was not organized on a river basin basis. Trans-boundary consultations on water issues were at an early stage.

On nature protection, limited progress was observed by the 2008 Progress Report. Turkey had aligned with the *acquis* regarding establishment and management of zoos. However, according to the 2008 Report, the level of harmonization and implementation remained very low. In 2008 Report, the loss of habitats was a cause for concern. The list of potential Natura 2000 sites had not yet been compiled. The 2008 Progress Report remarked that a framework law on nature protection and implementing legislation on birds and habitats had not yet been adopted. The 2008 Report noted that a national biodiversity strategy and action plan had been prepared, but not adopted by the government.

No progress can be observed by the 2008 Report regarding industrial pollution control and risk management. Turkey had aligned with some provisions of the Seveso II Directive and with the Large Combustion Plants and Waste Incineration Directives. However, according to the 2008 Report, overall transposition and implementation remained very low. Introduction of an integrated permit system was at an early stage.

⁶⁵⁹ Ibid.

Some progress was seen by the 2008 Report in the field of chemicals. The legislation on dangerous chemicals had been amended. Overall, according to the 2008 Report, the level of transposition remained low and the capacity for effective implementation was insufficient. No progress can be reported on genetically modified organisms.

According to the 2008 Report, Progress had been made in the field of noise. Following adoption of the implementing legislation Turkey is approaching full alignment with the *acquis* in this area. However, the 2008 Progress Report noted that preparation of noise maps and action plans was at an early stage.

Some further progress had been observed by the 2008 Report in the area of administrative capacity. A substantial number of staff was recruited and trained by the Ministry of Environment and Forestry (MoEF). A new department for implementation of the environment programs under IPA had been established in the Ministry. The Directorate-General for State Hydraulic Works has been affiliated to the MoEF. However, according to the 2008 Report, no progress had been made on establishment of a national environment agency. Responsibilities, such as inspection activities and nature protection, were not clearly defined. The 2008 Report signified that administrative capacity needed further strengthening, including coordination between the relevant authorities at all levels. The 2008 Report emphasized that mainstreaming of environmental protection into other policy areas and ensuring that new investments comply with the environmental *acquis* were at an early stage. Some of the existing legislation, such as the Mining Law, which includes gold mining, and the tourism legislation, according to the 2008 Report, were causing major damage to natural areas.

The 2009 Progress Report observed good progress on horizontal legislation.⁶⁶⁰ Turkey has ratified the Kyoto Protocol. The Environmental Impact Assessment (EIA) Directive has been transposed to a large degree. However, according to the 2009 Report, procedures for public and transboundary consultations have not been fully aligned. Some articles of the Environment Law, related to the exclusion of petroleum, geothermal resources and mine exploration from environmental impact assessment, has been cancelled by the Constitutional Court in order to improve environmental protection. The 2009 Report reminded that Turkey is not a party to the Espoo and Aarhus Conventions. The Emissions Trading Directive has not

⁶⁶⁰ Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2009

been transposed. A greenhouse gas emission trading scheme has not yet been established. Transposition of the Strategic Environmental Assessment (SEA) Directive is at an early stage. The 2009 Report remarked that there has been no progress on transposition of the *acquis* on environmental liability, public participation and public access to environmental information.

The 2009 Progress Report observed limited progress on air quality. Turkey has adopted legislation on the air quality framework legislation and daughter directives, but its alignment with the *acquis* remains to be confirmed. However, according to the 2009 Report, the administrative capacity for implementation of the directive on regional air quality is not sufficient. The clean air centre in Marmara has not yet been established. Some progress can be seen on the trade of ozone depleting substances and the legislation related to sulphur content of certain liquid fuels by the 2009 Report. No progress has been made, noted by the 2009 Report, legislation related to the *acquis* on emissions of volatile organic compounds and national emission ceilings.⁶⁶¹

In the field of waste management, the 2009 Report traced limited progress. New legislation on packaging waste was adopted. As regards implementation, according to the 2009 Report, there have been complaints by EU companies about the implications of the by-law, adopted last year, restricting use of certain hazardous substances in electrical and electronic equipment. The EU companies argue that the new legislation is creating difficulties for trade. The 2009 Report noted that no progress has been made regarding the directives on landfill and mining waste.

There has been no progress in the areas of water quality, genetically modified organisms and nature protection. Regarding industrial pollution control and risk management, some progress has been observed by the 2009 Report. Turkey has aligned with some provisions of the Seveso II Directive and with the Large Combustion Plants and Waste Incineration Directives.⁶⁶² However, according to the 2009 Report, the overall level of transposition and implementation capacity remains low. Moreover, introduction of an integrated permit system is at an early stage.

⁶⁶¹ Ibid.

⁶⁶² Ibid.

The good progress in the field of chemicals has been appreciated by the 2009 Progress Report. The legislation on signing the Stockholm Convention on Persistent Organic Pollutants has been adopted.⁶⁶³ By-laws were adopted on: the inventory and control of chemicals; compilation and distribution of safety data-sheets relating to dangerous substances and preparations; restriction of production, placing on the market and use of certain dangerous substances and preparations; and classification, packaging and labeling of dangerous substances and preparations. However, according to the 2009 Report, the overall level of transposition remains low and the capacity is insufficient for effective implementation.

Alignment in the field of noise is well advanced. Preparation of noise maps and action plans is at an early stage. The 2009 Report indicated some progress in the area of administrative capacity. A by-law was adopted to enhance environmental protection by defining procedures and principles for environmental inspectorates, environmental management departments and certified inspection companies to increase the effectiveness of the environmental inspection system. However, according to the 2009 Report, although the Directorate-General for State Hydraulic Works has now been attached to the Ministry of the Environment and Forestry, its objectives have still not been streamlined with those of the ministry. The 2009 Report noted that no progress has been made towards establishing a national environment agency. Responsibility for nature protection is not clearly defined between the various competent institutions. The 2009 Progress Report stresses the need of further strengthening of administrative capacity, including coordination between the relevant authorities at all levels. The 2009 Report asserted that mainstreaming environmental protection into other policy areas and ensuring that new investments comply with the environmental *acquis* are at an early stage. Some of the existing legislation, according to the 2009 Report, such as the Mining Law, the Law establishing the Directorate-General for State Hydraulic Works and the tourism legislation are still a major concern for natural areas.

The adaptational pressure for institutional change could take different forms. In case of Europeanization either the normative power or official interference of the EU or, in many situations, both of them might have impact on domestic institutional change in member states or candidate countries. Measuring the normative power of the EU and its impact on domestic institutional changes in a candidate country would have created some serious methodological

⁶⁶³ Ibid.

problems in this dissertation, since analyzing the meaning of environment and environmental institutions normatively and reaching a conclusion of what these concepts meant for all of the EU countries would be a long and difficult research which was not within the tasks of the dissertation. Thus, official and direct involvements of the EU, the progress reports and accession partnership documents, had been employed as the instruments for adaptational pressure, in which the demands for change were clearly expressed and therefore they were uncomplicated to be analyzed.

The progress reports for Turkey have been issued since 1998 by the European Commission. In general, these reports are designed in line with the accession negotiation topics and they are aimed to demonstrate the problematic areas within the topics and express the expectations of the EU from the candidate countries. Likewise, the environment section of Turkey's progress reports indicates the problematic issues in environmental policy of Turkey and voices the demands of the EU for institutional change. In Europeanization terms, the progress reports, illustrated the misfit between Turkey and the EU and put the adaptational pressure on Turkey in the field of environmental policy.

In progress reports until 2002, there had been almost no acknowledgement of Turkey's achievements in the field of environment. In 1998, 1999, 2000 and 2001 reports were approximately the same documents mentioned the same problematic areas and expressing the same demands. The first notable positive approach was in 2002 report that Turkey had started to make progress in terms of transposition of the EC environmental *acquis* and the improvement of administrative capacities. Especially, strengthening of administrative capacity with a law and several regulations was mostly appreciated by the 2002 report. However, transposing EC *acquis* in remaining fields, such as air quality, water quality and waste management were still seemed problematic by this report. In 2003 report, only the merging of ministries of environment and forest was acknowledged as a sign of strengthening the administrative capacity, but the concerns of previous reports were pursued to be present. The 2004 Report stressed that Turkey needed to take steps to integrate environmental protection requirements into the definition and implementation of all other policies, and to promote sustainable development.

The establishment of an integrated Ministry of the Environment and Forestry was considered a positive step in relation to administrative capacity by the 2004 Report. However, according

to the 2004 Report, this integration had not been effective in enhancing implementation. There were overlaps in competencies between different ministries and institutions, and therefore further efforts were needed. The 2005 Progress stated that some progress had been made in the field of waste management, in the noise sector and nature protection, but in other fields the gap between Turkey and the EU remained the same. The 2006 report voiced the same complaints with the previous reports, but added an international dimension of concern and warned Turkey of not being a party to Espoo and Aarhus Conventions and not signing the Kyoto Protocol.

According to the 2006 Report, progress was made as regards administrative capacity. The amended Environmental Law defined a clearer role for the Ministry of Environment and Forestry, allowed for recruitment of additional staff, as well as for additional financial resources in the environment sector. The 2007 Regular report admitted the considerable progress in the area of administrative capacity. Following the amendment of the Environmental Law, acknowledged the 2007 report, a substantial number of experts were recruited and trained by the Ministry of Environment and Forestry (MoEF). An environmental fund was established under the MoEF to support environmental projects. A project prioritization methodology had been introduced. However, according to the 2007 Report, in addition to concerns of previous reports, there was no progress on the establishment of a national environmental agency. The 2008 Report admitted some progress in the field of horizontal legislation, the Environmental Impact Assessment (EIA) directive had been transposed to a large degree. But this report also continued to display EU's concerns in many fields of the environmental policy. The 2009 Report acknowledged the progress on horizontal legislation. Turkey has ratified the Kyoto Protocol. The Environmental Impact Assessment (EIA) Directive has been transposed to a large degree. However, according to the 2009 Report, there were still numerous incompatibilities between Turkey and the EU in the field of environmental policy.

According to these reports Turkey made quite a limited progress in complying with the EU environmental acquis. Some improvements, especially in the forms of changes in environment related laws, were mostly appreciated by the reports. These changes were usually about designing of the institutions, thus improving the administrative capacities. However, according to following progress reports, the newly designed institutions lacked sufficient instruments to be effective enough; therefore the changes made were mostly irrelevant.

Although, relevant organizations and employees were appeared on the scene, since they lack the significant tools for application of new laws, regulations, constraints and fines, they had very limited impact on institutional change of environmental policy in Turkey. Finally, it can be argued that, in the field of environmental policy, according to the progress reports, some changes were made at the level of laws and regulations, but their reflections on operational level were quite narrow in Turkey. In the terms of Europeanization and Institutional Change, although there was a misfit between Turkey and the EU in the field of environmental policy, the Europeanization occurred was limited, in other words there are some institutional adjustments but it is difficult to talk about an institutional change in Turkish environmental policy.

3.2.2. Institutional Pressure from the European Council: Accession Partnerships

The European Council in Helsinki (10 and 11 December 1999) adopted the official candidacy for full membership of Turkey to the EU. Turkey became a candidate State destined to join the Union on the basis of the same criteria as applied to the other candidate States. At its meeting in Helsinki, the European Council decided that an Accession Partnership would be drawn up ‘on the basis of previous European Council conclusions’. This accession partnership would contain priorities on which accession preparations must concentrate in the light of the political and economic criteria and the obligations of a Member State combined with a national program for the adoption of the *acquis*. In this manner, the EU targets its assistance towards the specific needs of each candidate so as to provide support for overcoming particular problems in view of accession.

The first Accession Partnership was provided for in a Council Regulation on the establishment of an Accession Partnership for Turkey.⁶⁶⁴ This Accession Partnership is proposed by the Commission, after consulting Turkey and on the basis of the principles, priorities, intermediate objectives and conditions decided by the Council. It takes into account the analysis in the 2000 regular report of the progress made by Turkey towards membership.

The short term priorities designed for Turkey in the 2001 Accession Partnership on the field of environment were as follows:

⁶⁶⁴ Council Decision of 8 March 2001 on the principles, priorities, intermediate objectives and conditions contained in the Accession Partnership with the Republic of Turkey

- Adopting a detailed directive-specific transposition program of the *acquis*.
- Transposing the environmental impact assessment Directive.
- Developing a plan for financing investments (directive specific), based on estimations of costs of alignment and realistic sources of public and private finance year-by-year.⁶⁶⁵

So, in the short term the EU wanted Turkey to prioritize a directive specific transposing policy. The medium term the priorities of Turkey on environmental policy issues were:

- Implementation and enforcement of the EU environmental *acquis* in particular through the development of framework and sector legislation, together with the strengthening of the institutional, administrative and monitoring capacity to ensure environmental protection.
- Implement the *acquis* with particular attention to the framework legislation, the horizontal legislation, and to the legislation on nature protection, on water quality and on waste management; implement a waste-management strategy.
- Establish monitoring networks and permit procedures as well as environmental inspectorates, including data collection.
- Integrate sustainable development principles into the definition and implementation of all other sectoral policies.
- Implement and enforce the environmental impact assessment directive.⁶⁶⁶

The medium term priorities of Turkey according 2001 Accession Partnership were mainly about implementing the environment *acquis*, controlling the implementation and absorption of sustainable development principles by all other sectoral policies.

The 2003 Accession Partnership sets out in a single framework the priority areas for further work identified in the Commission's 2002 Regular Report on the progress made by Turkey towards accession, the financial means available to help Turkey implement these priorities and the conditions which will apply to that assistance. The Copenhagen European Council recognized that through recent legislative packages a large number of priorities specified in the 2001 Accession Partnership have been addressed. As compared to the Accession Partnership for Turkey adopted by Council in 2001, the Commission's proposal takes full account of developments during the past two years and focuses clearly on areas where priority action is still needed. It is expected that on the basis of this revised Accession Partnership Turkey will draw up a revised national program for the adoption of the *acquis*, and adopt, implement and enforce the necessary measures.

⁶⁶⁵ Council Decision of 8 March 2001 on the principles, priorities, intermediate objectives and conditions contained in the Accession Partnership with the Republic of Turkey (2001/235/EC)

⁶⁶⁶ Ibid.

The short term priorities designed for Turkey in the 2003 Accession Partnership on the field of environment were as follows:

- Adopt a program for transposition of the *acquis*.
- Develop a plan for financing investment, based on the estimations of costs of alignment and realistic sources for public and private finance.
- Begin to transpose and implement the *acquis* related to the framework legislation, international environmental conventions, legislation on nature protection, water quality, Integrated Pollution Prevention Control and waste management.
- Implement and enforce the environmental impact assessment directive.
- Pursue the development of transboundary water cooperation in line with the water framework directive and international conventions to which the EC is a party.⁶⁶⁷

So, in the short term the EU wanted Turkey to prioritize a directive specific transposing policy and a realistic plan for financing environmental investments. The medium term the priorities of Turkey on environmental policy issues were:

- Complete the transposition of the *acquis* and strengthen the institutional, administrative and monitoring capacity to ensure environmental protection, including data collection.
- Integrate sustainable development principles into the definition and implementation of all other sectoral policies.⁶⁶⁸

The medium term priorities of Turkey according 2003 Accession Partnership were mainly about implementing the environment *acquis*, strengthening the institutional capacity integrating sustainable development principles into all other sectoral policies.

The priorities listed in 2007 Accession Partnership have been selected on the basis that it is realistic to expect that Turkey can complete them or take them substantially forward over the following years. A distinction was made between short-term priorities, which were expected to be accomplished within one to two years, and medium-term priorities, which were expected to be accomplished within three to four years. The priorities concern both legislation and the implementation.

The short term priorities designed for Turkey in the 2007 Accession Partnership on the field of environment were as follows:

⁶⁶⁷ Council Decision of 13 April 2003 on the principles, priorities, intermediate objectives and conditions contained in the Accession Partnership with the Republic of Turkey.

⁶⁶⁸ *Ibid.*

- Adopt a comprehensive strategy for the gradual transposition, implementation and enforcement of the acquis, including plans for building up the necessary administrative capacity at national, regional and local level and required financial resources, with an indication of milestones and timetables,
- continue transposition, implementation and enforcement of the acquis, in particular horizontal and framework legislation, such as the environmental impact assessment, including transboundary aspects, as well as strengthening of administrative capacity,
- adopt the National Waste Management Plan.⁶⁶⁹

So, in the short term the EU wanted Turkey to prioritize preparing strategies and plans to transpose environment acquis. The medium term the priorities of Turkey on environmental policy issues were:

- Continue to transpose and implement the acquis related to the framework legislation, international environmental conventions and legislation on nature protection, water quality, chemicals, industrial pollution and risk management and waste management,
- pursue integration of environmental requirements into other sectoral policies.⁶⁷⁰

The medium term priorities of Turkey according 2007 Accession Partnership were mainly about transposing and implementing the environment acquis, strengthening the institutional capacity integrating environmental requirements into all other sectoral policies.

Accession Partnerships are the instruments of the EU, other than the progress reports, for making adaptational pressure on candidate countries. Accession partnerships are a pre-accession strategy instrument which determines the candidate countries' particular needs on which pre-accession assistance should be targeted and provides a framework for; the short and medium-term priorities, objectives and conditions determined for each candidate country on the basis of the accession criteria (Copenhagen criteria) in accordance with the Commission's opinion on its membership application and Pre-accession assistance. In other words, accession partnerships draw the schema of Europeanization and institutional change for the candidate country. Even, a timetable and a detailed plan are required from the candidates, namely, a National Program for the Adoption of the Acquis (NPAA).

The first Accession Partnership was issued in 2001 by the Council. This was followed by two subsequent accession partnerships which were issued respectively in 2003 and 2007. The short term priorities designed for Turkey in the 2001 Accession Partnership on the field of environment were prioritizing a directive specific transposing policy. The medium term priorities of Turkey according 2001 Accession Partnership were mainly about implementing

⁶⁶⁹ Council Decision of 18 February 2008 on the principles, priorities, intermediate objectives and conditions contained in the Accession Partnership with the Republic of Turkey.

⁶⁷⁰ Ibid.

the environment acquis, controlling the implementation and absorption of sustainable development principles by all other sectoral policies.

The 2003 Accession Partnership recognized that through recent legislative packages a large number of priorities specified in the 2001 Accession Partnership have been addressed, but almost all the same areas required a more intense work. The short term priorities designed for Turkey in the 2003 Accession Partnership on the field of environment were to prioritize a directive specific transposing policy and a realistic plan for financing environmental investments. The medium term priorities of Turkey according 2003 Accession Partnership were mainly about implementing the environment acquis, strengthening the institutional capacity integrating sustainable development principles into all other sectoral policies. The priorities listed in 2007 Accession Partnership have been selected on the basis that it was realistic to expect that Turkey could complete them or take them substantially forward over the following years. The priorities concerned both legislation and the implementation. The short term priorities designed for Turkey in the 2007 Accession Partnership on the field of environment were to prioritize preparing strategies and plans to transpose environment acquis. The medium term priorities of Turkey according 2007 Accession Partnership were mainly about transposing and implementing the environment acquis, strengthening the institutional capacity integrating environmental requirements into all other sectoral policies.

Similar to conclusion reached by the progress report analysis, it can be argued that according to accession partnerships Turkey have taken some steps forward to comply with the European environmental policy but they were either insufficient or too shallow that were usually considered incapable for meeting the terms of the EU. Furthermore, it was implicitly expressed that although Turkey adopted some legislative changes; implementing and making operational of those legislation remained poor.

3.3. Incremental Adaptation Process of Environmental Policy in Turkey

The process of considerable institutional change in environmental policy in Turkey has begun in late 1990s. Joining Customs Union in 1996 and being announced as an official candidate in 1999 required Turkey to take concrete steps in harmonization with EU, which included the adaptation of environmental policy in Turkey to the environmental policy of the EU. The issue of environment perceived quite differently in Turkey and Turkish environmental

practices were absolutely not in harmonization with that of the EU's in those years. Thus, the adaptation process required Turkey an extensive amount of work, time and financial resources. However, as being a committed candidate to the EU full membership, Turkey initiated the adaptation process as early as 1999.

In this section the incremental adaptation process of environmental policy in Turkey is evaluated with a two sided approach. In the first part the strategic objectives and plans prepared and announced by official documents would be considered as the preliminary or preparatory actions for institutional change. In order to demonstrate the initial intentions of Turkey and the difference between intentions and actuality those actions are quite significant. The second part of this section is about the concrete actions which have been taken to realize institutional change in environmental policy. A three dimensional analysis, based on policy making, organizational structure and legislation, is conducted to comprehend the degree of adaptation in the field of environment.

3.3.1. Preliminary Actions for Institutional Change: Strategic Objectives and Planned Actions about Environment

An institutional change does not occur suddenly, especially if the institution subject to change is quite an extensive one and if it has substantially different paths than that of the one which the institution is expected to be converged. Thus, the process of change is usually incremental and each step requires a preliminary phase. This is also true for our case: environmental policy in Turkey. There have been several steps in transformation process of environmental policy in Turkey and each step has been prepared by certain documents and commitments. In order to comprehend the process the National Environmental Action Plan, Eighth and Ninth Five Year Development Plans, National Programs of Turkey for the Adoption of the Acquis and EU Integrated Environmental Action Strategy are analyzed in this section.

3.3.1.1. The Initial Step for Transformation of Environmental Perception and Policy: National Environmental Action Plan of Turkey (NEAP)

The NEAP⁶⁷¹, as the first most concrete and comprehensive policy document on Environmental Policy in Turkey was also set the strategic objectives and a set of principles on how to achieve these objectives. Based on these principles, a number of action areas, comprising several specific actions, were put forward for consideration. To rank these actions and determine their relative priority, specific criteria were generated through a stakeholder participatory process. This part of the dissertation deals with the strategic objectives and principles that were used to formulate the action plan. The main components of the NEAP are actions for:

- developing a more effective environmental management system;
- enhancing information and awareness; and
- investing in improved environmental management.⁶⁷²

Table 3.1: Table Developed to Rank Action Groups

Criteria and Weighting	Explanation
ECOLOGICAL BALANCE (Relative weight = 0.323)	Improvements in environmental conditions for the sustenance of flora and fauna; impact of ecological cycle on the preservation and sustenance of natural processes.
HUMAN HEALTH (Relative weight = 0.315)	Improvements in environmental conditions of individuals and communities; impact of such improvements on development in qualitative and quantitative terms.
CULTURAL, HISTORICAL, AESTHETIC VALUES (Relative weight = 0.200)	Impact of improvements in environmental conditions on the identification, preservation and development of cultural, historical and aesthetic assets.
ECONOMIC PRODUCTIVITY (Relative weight = 0.161)	Effect of improvements in environmental conditions on resource utilization; impact of such improvements on the level of economic development.

Source: National Environmental Action of Turkey, 1999, Ankara, p. 58.

The NEAP determined the following environmental objectives as achievable and measurable. The first objective was ‘reducing or preventing pollution’; according to the NEAP this would have been helped achieving the goals of Management and development.⁶⁷³ This objective was set to create a situation where environmental damage in Turkey would be decreased or avoided altogether. Second objective in NEAP was ‘improving access to basic environmental

⁶⁷¹ National Environmental Action Plan of Turkey, 1999, Ankara

⁶⁷² National Environmental Action Plan of Turkey, 1999, Ankara

⁶⁷³ National Environmental Action Plan of Turkey, 1999, Ankara

infrastructure and services', with this it is aimed to help Turkish citizens to enjoy better environmental quality. This would have been supported the goals of Quality of Life, Management and Development. The third objective was 'encouraging sustainable resource use', which aims the stakeholders to use renewable resources more sustainable. This would have been contributed to the goals of Awareness and Development. The fourth strategic objective was 'supporting sustainable environmental practices' by which the policies, programs and projects that sustain environment and the economy would be supported. This would have been assisted in attaining the goals of Awareness, Management and Development. The final objective set by the NEAP was 'minimizing vulnerability to environmental hazards' which would reduce human and ecological exposure to natural as well as man- made risks and support the goals of life and management.

Alongside the objectives, preparation of the NEAP has been guided by an explicit set of principles to ensure that the plan can be successfully implemented. The first basic principle for formulating environmental protection and management measures is 'using democratic and participatory mechanisms', which would require empowerment and access to relevant information, institutionalization of stakeholder involvement and support to enhance the effectiveness of participants. The second principle was 'seeking consensus and commitment'. According to the NEAP oppressive measures could not yield sustained results. Thus, voluntary commitment must be the basis for pursuing environmental protection and management activities.⁶⁷⁴ Third principle was 'combining efficiency and economic rationality'. The NEAP claimed that inefficient use of resources was one of the basic causes of environmental problems as well as a source of reduced economic productivity. The fourth principle set by the NEAP was 'coordinating and internalizing priority actions'. The NEAP suggests that with limited resources, priority must be set and pursued. Sustained implementation of priority actions would require coordination between key stakeholders and internalization of concerns for protecting and managing the environment. The final principle put by the NEAP was 'decentralizing solutions to the appropriate level'. According to NEAP environmental problems could often be solved at the local level; however, planning and resource allocation in Turkey were highly centralized. Problem identification, option development, decision-making, and implementation should be decentralized to the lowest effective level.

⁶⁷⁴ National Environmental Action Plan of Turkey, 1999, Ankara

The NEAP was organized in three components:

- A program and supporting actions to develop a more effective system of environmental management,
- actions for enhancing information and public awareness,
- investments for critical problem areas.⁶⁷⁵

Table 3.2: Action Program for Enhancing Environmental Management System

<i>Action Areas</i>	<i>Actions</i>
Economic/ Financial Instruments	<ol style="list-style-type: none"> 1) Review existing pricing policies to remove environmentally harmful subsidies and introduce environmentally beneficial cross-subsidies, e.g. to make unleaded fuel more competitive 2) Regularly assess other macroeconomic policies (taxation; municipal financing; agriculture, energy, forestry, industry and tourism development strategies) to evaluate and mitigate negative environmental consequences; 3) Identify opportunities for enhancing environmental regulations with more use of economic instruments (effluent and emission fees, user charges, cost recovery, product fees, marketable permits, deposit-refund schemes, performance bonds, liability assignments) 4) Reform the Environmental Pollution Prevention Fund and other relevant funds to finance priority actions identified in the NEAP and make its management more participatory 5) Use standard approach to setting utility charges based on long-run marginal costs that incorporate environmental protection, management and rehabilitation expenses
Institutional Reform	<ol style="list-style-type: none"> 1) Review existing institutional, financial and technical instruments for accelerated implementation of EIA procedures & introduce environmental auditing procedures 2) Introduce guidelines to improve the environmental performance of parastatals 3) Accelerate privatization of state enterprises and incorporate criteria for environmentally responsible behavior in the privatization process 4) Strengthen the authority and resources of local governments to analyze and solve environmental problems 5) Modify SPO's internal procedures so there is environmental screening of investments through collaboration between the environment sector and other sectors 6) Establish environmental units and programs in each governmental agency to assess environmental performance and recommend improvements
Legislative Arrangements	<ol style="list-style-type: none"> 1) Modify legislation and administrative arrangements to institutionalize stakeholder participation in environmental planning, decision-making and implementation, including public interest law suits and local referenda 2) Assess proposed amendments to decree for establishing the ME and Municipal Act to determine the extent to which environmental variables are incorporated
Planning	<ol style="list-style-type: none"> 1) Incorporate environmental concerns in the national, regional and local plans. Local environmental problems, eco-basin activities, and priority actions should be identified in the plans. 2) Change the method and scope of urban development and environment plans to integrate environmental variables
Inventory/ Research	<ol style="list-style-type: none"> 1) Identify and compare organizations and agencies that directly or indirectly affect the environment in terms of their objectives, working systems, instruments, priorities, and resources; determine measures to increase efficiency, cooperation & participation 2) Determine the quality and quantity of existing and potential resources that can be utilized for the protection and management of the environment 3) Inventory the obligations, constraints and opportunities that originate from international conventions, agreements, treaties, protocols, and declarations 4) Collect and evaluate information on enforcement and compliance with existing environmental regulations 5) Assess the nature, level and potential for community participation in environmental management 6) Regularly survey public awareness and concern about environmental issues and public participation in environmental management

Source: National Environmental Action of Turkey, 1999, Ankara, pp. 60 – 61.

⁶⁷⁵ National Environmental Action Plan of Turkey, 1999, Ankara

The highest priority set of actions was to make the existing system for environmental management more effective. Significant resources were being used by the existing system. However, the system was often ineffective because it: relied on regulatory mechanisms which were not supported by efficient institutional capacity and not blended with market instruments; limits public participation; did not take full advantage of available information; was over centralized; and was not well-understood by stakeholders. Thus, the system in Turkey lacked the power to manage problem areas, issues were addressed in an ad hoc manner and long-term solutions cannot be sustained. Reform would have begun with a program of urgent low and no-cost actions that should be taken to enhance the existing system.

Some of the actions in this program were no or low-cost policy measures that will require political commitment to be carried out. Other changes could be supported through a series of concrete, short- and medium-term actions:

- to improve the institutional and legal framework and
- integrate the environment into development planning.⁶⁷⁶

According to the NEAP Turkey's system of development planning at the national, regional and local levels needed to be urgently reformed in order to place environmental considerations on the agenda.⁶⁷⁷ Priority projects for integrating the environment into development planning in Turkey included: identifying eco-basins; local environmental action planning; making the EIA process more effective; classifying and planning land use capacity; completing and managing rural cadastral works; and preparing and implementing national productivity action plans.

The second integral part of the NEAP's actions was enhancing information and awareness. The NEAP participatory process concluded that the two highest-priority action groups should be:

- development and efficient operation of reliable, renewable environmental information production systems that are terminologically and conceptually consistent,
- implementation of training and social marketing programs for building awareness among stakeholder groups.⁶⁷⁸

⁶⁷⁶ More details are provided in: National Environmental Action of Turkey, 1999, Ankara, pp. 134 -137.

⁶⁷⁷ National Environmental Action Plan of Turkey, 1999, Ankara

⁶⁷⁸ National Environmental Action Plan of Turkey, 1999, Ankara

Two projects proposed in the NEAP for enhancing environmental information and awareness were:

- managing environmental data for improving analysis, decision-making and public awareness;
- environmental education and training that would be conducted through both formal and non-formal channels.

Better environmental information and a better-educated public could help address all of the problem areas by broadening government and public perception about the risks and costs of a degraded environment, helping government to more efficiently focus resources on priority problems, and increasing public pressure on the political system to tackle environmental issues.⁶⁷⁹

New investments were needed in each of the problem areas that have been covered previously. The third part of actions offered in the NEAP was investing in improved environmental management. To tackle Turkey's key problems of the urban environment, projects were proposed to: improve waste management; encourage clean technologies and energy sources; and upgrade urban slums. To improve natural resource management, a large investment was proposed to upgrade rural environmental infrastructure. Investments for protecting and managing Turkey's biological diversity were included in the national biodiversity strategy and so were not parts of the NEAP. In addition, all of the actions for integrating the environment into development planning should contribute to improved natural resource management.⁶⁸⁰

⁶⁷⁹ More details are provided in: National Environmental Action of Turkey, 1999, Ankara, pp. 138 – 139.

⁶⁸⁰ More details are provided in: National Environmental Action of Turkey, 1999, Ankara, pp. 140 – 143.

Table 3.3: Summary of NEAP Studies and Projects

Study/Project	Term	Objective(s)	Lead Agency
1. ENHANCING ENVIRONMENTAL MANAGEMENT SYSTEM Institutional & Legislative Framework			
1.1 Harmonizing Institutional Setting	Short	All objectives	Prime Ministry + SPO + ME
1.2 Harmonizing Legislative Framework Environment & Development Planning	Short	All objectives	Prime Ministry + SPO + ME
1.3 Identifying Eco-basins			
1.4 Local Environmental Action Planning	Short	Sustainable resource use	MoF, MARA, DSI
1.5 Making the EIA Process More Effective	Short	All objectives	Local governments
1.6 Classifying and Planning Land Use Capacity	Short	Reduce/prevent pollution Sustainable practices	ME
1.7 Completing Rural Cadastral Works	Medium	Sustainable resource use	GDRS
1.8 Preparing & Implementing National Productivity Action Plans	Medium	Sustainable practices	Cadastre G.D.
	Medium	All objectives	SPO + National Productivity Ctr.
2. IMPROVED INFO. & AWARENESS			
2.1 Managing Environmental Data	Medium	All objectives	SIS
2.2 Environmental Education and Training	Short	Sustainable resource use & practices; vulnerability	ME + Ministry of Education
3. INVESTING IN ENVIRONMENT			
Urban Environment			
3.1 Improving Waste Management	Short	Reduce/prevent pollution Improve access	ME + local governments
3.2 Encouraging Clean Technologies and Energy Sources	Medium	Reduce/prevent pollution Sustainable practices	Ministries of Energy + Industry&Trade
3.3 Upgrading Urban Slums	Short	Improve access Minimize vulnerability	MPWS + local governments
3.4 Upgrading Rural Environmental Infrastructure Marine and Coastal Resources	Medium	Improve access Sustainable practices	GDRS
3.5 Improving Coastal Zone Management Cultural and Natural Heritage	Short	All objectives	MPWS + local govts
3.6 Environmental Management for the GAP Region Environmental Hazards	Short	All objectives	GAP Regional Administration
3.7 Reducing Environmental Risks	Medium	Minimize vulnerability	MPWS+ local govts.

Source: National Environmental Action of Turkey, 1999, Ankara, p. 63

The NEAP was intended to be implemented over a 20-year period. Only short- and medium-term projects have been selected for the NEAP. Activities have only been identified for the

The NEAP, as the first most concrete and comprehensive policy document on Environmental Policy in Turkey has also set the strategic objectives and a set of principles on how to achieve these objectives. Based on these principles, a number of action areas, comprising several specific actions, were put forward for consideration. The NEAP determined the following environmental objectives as achievable and measurable. The first objective was ‘reducing or preventing pollution’; second objective in NEAP was ‘improving access to basic environmental infrastructure and services’; the third objective was ‘encouraging sustainable resource use’; the fourth strategic objective was ‘supporting sustainable environmental practices’; the final objective set by the NEAP was ‘minimizing vulnerability to environmental hazards’. As it could be observed, although there was no direct reference to the EU, the objectives set by the NEAP were in line with the expectations of the EU on environmental policy. Preventing pollution before it happens, sustainable development and free access to environmental services were also the objectives determined by European environmental plans, especially by the 5th and 6th ones, for all the members and potential members. Furthermore, these objectives were sometimes openly and sometimes implicitly announced in both progress reports and accession partnerships.

Alongside the objectives, preparation of the NEAP has been guided by an explicit set of principles to ensure that the plan can be successfully implemented. The first basic principle for formulating environmental protection and management measures was ‘using democratic and participatory mechanisms’; the second principle was ‘seeking consensus and commitment’; third principle was ‘combining efficiency and economic rationality’; the fourth principle set by the NEAP was ‘coordinating and internalizing priority actions’; the final principle put by the NEAP was ‘decentralizing solutions to the appropriate level’. The principles articulated in NEAP carried the evidences of EU’s normative impact. The general principles imposed in numerous EU documents and especially in founding treaties such as transparency, democracy, efficiency, decentralization and subsidiarity, which were not only created for a specific policy area but for a common purpose of reliable European integration, were re-formulized in NEAP and applied to environmental policy in Turkey. Thus, it can be claimed that the NEAP had the overtones of both direct effect and normative impact of the EU as early as the year of 1999. In terms of Europeanization, the NEAP has been the first official document in Turkey which pronounced the areas of misfit between Turkey and the EU in the field of environmental policy and made commitments for institutional change.

3.3.1.2. The First State Level Response to Formal Adaptational Pressures: Eighth Five Year Development Plan (2001 – 2005)

The eighth five year development plan (EFYDP)⁶⁸¹ began by revealing that Turkey was in a progress pertaining to legislation and formation of institutional structure towards solving environmental problems, and a National Environment Action Plan (NEAP) has been prepared. It is claimed in EFYDP that public sensitivity towards a clean environment was increasing.

The EFYDP informed that despite the positive developments, environmental management systems could not be realized at a desired level of effectiveness.⁶⁸² Rapid urbanization has increased the pressure upon natural resources, the amount of the wastes and other environmental problems especially on coastal areas and seas. It is declared in EFYDP that the deficiencies in education, participation in decision-making processes and decentralization created severe obstacles for the sustainable management of the natural resources and solution of the environmental problems.

The EFYDP regret that in line with sustainable development approach, a desired progress so as to enable an economic development protecting human health and natural balance, to ensure management of natural resources, to pass down to the future generations a more healthy natural, physical and social environment, could not be attained. It is argued in EFYDP that environment policies could not be integrated with economic and social policies while economic means could not be sufficiently used.

The EFYDP admitted the need for re-defining authority and responsibilities of the Ministry of Environment, other related ministries and the local administrations. In line with the integration principle between environment and development policies, no significant improvement could be attained concerning the establishment of an efficient and coordinated environmental monitoring system. Moreover, insufficiency in data and information access systems, environmental monitoring and measuring infrastructure, environment inventories, statistics and standards concerning the environment and development was accepted by the EFYDP. It is admitted in EFYDP that desired success has not been achieved in implementing the Regulation on Environmental Impact Assessment (EIA).

⁶⁸¹ State Planning Organization; Eighth Five Year Development Plan (2001-2005), 2000, Ankara

⁶⁸² State Planning Organization; Eighth Five Year Development Plan (2001-2005), 2000, Ankara

The EFDYP stressed internationalization of environmental policies in Turkey by stating that Turkey becoming a party to the UN Biological Diversity Convention in 1996, to UN Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, in 1998. Furthermore Turkey's ambition to become a part of the global environmental action was demonstrated by her efforts to become a party to the UN Framework Convention on Climate Change.

Although quite briefly, the studies on harmonization of the policy implementations and the decisions made on the solution of the environmental problems with the EU norms and international standards were also stated by the EFYDP.

The main objective in EFYDP was stated as to ensure economic and social development by protecting human health, ecological balance and cultural, historical and aesthetical values. The EFYDP acknowledged the basic action categories and priority areas defined within the NEAP and stated that they had to be overviewed while ensuring coordination and participation among main stakeholders.⁶⁸³ The EFYDP furthers its support by stating that mechanisms for ensuring coordination and cooperation among the bodies and institutions directly and indirectly concerned with the solution of environmental problems would be improved. Public reconciliation and participation towards solution of environmental problems had to be attached importance.

However, in terms of legal framework NEAP had to be revised and updated. According to EFYDP sustainable development indicators had to be developed which would also serve for a better monitoring implementation of NEAP. EFYDP indicated that environmental management capacity had to be improved and use of environmental management means had to be made more effective. The economic means, according to EFYDP, had to be utilized in the integration of environmental policies with the economic and social policies. It is stated by the EFYDP that long term policies and strategies implemented for the solution of environmental problems had to be aligned with the EU norms and international standards by considering the needs of the country.

⁶⁸³ State Planning Organization; Eighth Five Year Development Plan (2001-2005), 2000, Ankara

The EFYDP put establishment of a system ensuring access to data and information on environment and development as one of its core objectives. Furthermore, improvement of environmental monitoring and measurement infrastructure and necessary arrangements for the environmental inventories, statistics and standards was seen as a significant component of an environmental policy by the EFYDP. It is committed in EFYDP that sustainable use of the natural resources had to be encouraged and environmental risks had to be minimized. Moreover the EFYDP declared that the National Action Plan for Biological Diversity prepared for protecting and sustainable usage of bio-diversity and management and action plans were drawn for Special Protection Areas.

The EFYDP stresses the need of combating desertification and erosion effectively, by offering a National Desertification Action Plan integrating forestry, agriculture, stockbreeding, settlement, industry, water resources, alternative subsistence resources and development of rural infrastructure.⁶⁸⁴ Emphasize was made the EFYDP on studies for increasing environmental sensitivity and preventing pollution in all sectors, with a special emphasis on public institutions. In prevention of air pollution, the EFYDP considered determining emission factors in all sectors and creating an emission inventory quite an important factor for a transparent environmental policy.

According to the EFYDP, environmentally friendly technologies had to be given priority in determination of industrial policies and new industrial investments. Furthermore, local manufacturers had to be informed about these and encouraged to use them. It is also stressed that arrangements towards making EIA process more effective was important to be active in implementing the environmental policy in Turkey. The bio-safety risks, which may result from biotechnological practices, were also mentioned in EFYDP and minimizing them by a holistic approach comprehending legal, institutional and practical arrangements was emphasized.

Within the context of protection of global climate system and within the framework of Turkey's responsibilities the EFYDP declared that efforts had to be continued to take part in the Framework Convention on Climate Change in line with the principle of common but differentiated responsibilities by considering the requirements of the increasing population.

⁶⁸⁴ State Planning Organization; Eighth Five Year Development Plan (2001-2005), 2000, Ankara

With a view to control and reduce the greenhouse gas emissions originating from transport, energy, industry and settlements, the EFYDP committed to make arrangements towards increasing energy efficiency and ensuring energy saving.

The EFYDP stated that the Environment Law, no.2872 and the Government Decree no. 443 in Force of Law on Establishment and Duties of the Ministry of Environment had to be updated. Moreover, according to the EFYDP, the Law on Bio-safety had to be enacted and a National Bio-safety Board had to be established.

Finally, the EFYDP stressed that legal and institutional arrangements necessary for ensuring sustainable use of natural resources had to be completed.⁶⁸⁵ In this context, relevant arrangements had to be made in the Law on Forests no 6831, The Reconstruction Law no 3194, The Law of Coasts no 3621, Law on Protection of Cultural and Natural Entities no 2863, the Law on Encouraging Tourism no.2634 and in related environmental regulations.

In Turkish political system the five year development plans and their supplements are the basic and quite detailed policy documents for activities of a certain period of time. Almost all future policies are determined and frameworks for those policies are drawn by five year development plans. The Eighth Five Year Development Plan was the first one of these documents within the time period of this research. It can be argued that the EFYDP stated Turkey's intention to comply with the international and European environmental norms; and reformulated the commitments made in NEAP for accommodating them in general Turkish political context. In other words, although NEAP was an official document, the objectives and principles mentioned in it had to be included in FYDP to become an official policy of Turkey. By this inclusion the commitments could be coordinated with the related policy areas and found place to be implemented. In terms of Europeanization and institutional change, the misfit between European and Turkish environmental policy was politically recognized by the EFYDP and it officially opened up the path for actions to realize the institutional change.

⁶⁸⁵ State Planning Organization; Eighth Five Year Development Plan (2001-2005), 2000, Ankara

3.3.1.3. The Catalysts of Institutional Change: 2001 and 2003 National Programs for the Adoption of Acquis (NPAA)

One of the main aims of the 2001 National program⁶⁸⁶ was to increase the efficiency of the Environmental Impact Assessment (EIA) process, harmonize with the EU acquis, and to develop the necessary infrastructure. Therefore studies on the revision of the EIA regulation should be finalized.

A national plan was to be prepared in the year 2001 so as to provide the necessary legal, technical and administrative infrastructure in order to provide access to environmental information. The said national plan would also determine the strategy for accession of Turkey to the Aarhus Convention in the field of access to environmental information, and would accelerate integration of Turkey with the European Environment Agency and European Environment Information and Observation Network (EIONET).

Necessary modifications were announced in the 2001 NPAA to be made on Regulation on the Control of Solid Wastes (14 March 1991), the Regulation on the Control of Medicinal Wastes (20 May 1993), and the Regulation on the Control of the Hazardous Wastes (27 August 1995), for alignment with the EU *acquis*.⁶⁸⁷

In 2001 NPAA, it is stated that administrative and technical arrangements covering the issues stated in the EU Directive on The Conservation of Natural Habitats and of Wild Fauna and Flora⁶⁸⁸, that have been launched for the preparation of national legislation related to the conservation of habitats within the scope of the international conventions undersigned by Turkey, were expected to be completed. The Framework Law on Protection of Nature was to be prepared and harmonized with the EU acquis. Moreover, 2001 NPAA committed that legislation contradictory to the EU Directive would be excluded.

In the 2003 Accession Partnership Document, adopting a programme for transposition of the acquis and developing a plan for financing investment, based on estimation of the cost of alignment and realistic sources of public and private finance, were considered as priorities by

⁶⁸⁶ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁶⁸⁷ Ibid.

⁶⁸⁸ Council Directive 92/43/EEC of 21 May 1992

the 2003 NPAA.⁶⁸⁹ In this context the “Analysis of Environmental Legislation for Turkey” project (MEDA/TUR/ENLARG/D4-01) financed by MEDA Funds, was completed in 2002.⁶⁹⁰ Environment legislation had been compared with EU legislation, a gap analysis and needs assessment study has been completed, and investment costs for directives requiring heavy investment have been calculated within the scope of this project.

Integrating sustainable development principles into the definition and implementation of all other sectoral policies was a medium term priority of the 2003 Accession Partnership Document. In this framework, a project fiche had been prepared and was submitted to the Pre-accession Financial Assistance Program.

The 2003 NPAA had specified ten sectors based on the priorities in 2003 Accession Partnership Document:

- Improvement of Water Quality
- Increase Effectiveness of Waste Management
- Improving Air Quality
- Nature Conservation
- Industrial Pollution and Risk Management
- Horizontal Sector
- Environmental Noise Management
- Management of Chemicals
- Genetically Modified Organisms
- Nuclear Safety⁶⁹¹

The National Programs for Adoption of Acquis (NPAAs) are official and binding commitments of candidate countries to comply with the EU norms and adoption of Acquis Communautaire. They are quite detailed documents which also include an implementation timetable. In other words they are the catalysts of change in domestic policies, legislations and organizational structures towards European ones. Thus the objectives stated in these documents are concrete promises of the candidate country. Turkey issued three NPAA in the years of 2001, 2003 and 2008.

Similar objectives were present in NPAAs with the EFYDP and NEAP, however, the basic difference of the NPAAs from the previous documents is, the NPAAs directly address the EU

⁶⁸⁹ Turkish National Program for the Adoption of Acquis (NPAA), 2003

⁶⁹⁰ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002

⁶⁹¹ *Turkish National Program for the Adoption of Acquis (NPAA)*, 2003

and they set their objectives completely in line with the EU documents, such as, progress reports and accession partnerships. In other words, the NPAAAs are such documents in which one can easily observe the straight responds to the adaptational pressures from the EU. Therefore, it can be argued that, in Europeanization and institutional terms, the objectives in the NPAAAs were formal statements of Turkey for institutional change while clearly recognizing and responding the source of the adaptational pressure.

3.3.1.4. The Institutional ‘Lock-in’ in Turkish Environmental Policy: EU Integrated Environmental Approximation Strategy (IEAS)

In institutionalist literature ‘lock-in’ indicates a situation, where deviations from the initial path become increasingly costly or difficult as a result of the institutionally structured distribution of power between different actors. In other words, in this situation instead of settling for little arrangements, changes or modifications are unavoidable. The issuing of IEAS points such a situation at environmental policy in Turkey. Environment chapter have been opened in accession negotiations, partly because of this action taken by the government and from this point on it is more difficult for Turkey to turn back than keeping the track towards adaptation with the European Environmental Policy.

It is stated in the IEAS that the realization of National Environmental Strategy: Turkey would be “A country where the fundamental needs of today’s generation as well as future’s will be met, and where higher standards of life will prevail, the biological diversity will be protected, the natural resources will be managed in a rational manner with an approach of sustainable development, a country where the right to live in a healthy and balanced environment will be protected”.⁶⁹² The fundamental purpose indicated in IEAS is to “establish a healthy and viable environment by taking into consideration the economic and social conditions that are prevailing in Turkey and in this direction to establish the harmonization of our national environmental legislation with EC Acquis Communautaire and provide for its implementation.”⁶⁹³

The IEAS ensured that the revision of the laws and by-laws related with environment and elaboration on their approximation with EC Acquis Communautaire. On the basis of common

⁶⁹² Ministry of Environment and Forestry, *EU Integrated Environmental Approximation Strategy (2007 - 2023)*, 2006.

⁶⁹³ Ibid

but differentiated responsibilities, the IEAS pointed out that the obligations and responsibilities that Turkey undertake within the framework of the international agreements which Turkey is a party to will be integrated to the national environmental strategy. It is asserted by the IEAS that the protection/utilization conditions for the natural resources will be set by observing the requirements of the future generations. The conformity of the national, regional and lower scale plans will be realized in the environmental organization plans. The integration of the environmental plans to economic and social plans will be provided.

The IEAS asserted that institutional structures will be utilized and their capacities will be strengthened for an effective environmental management. Furthermore, for the implementation of the environmental norms and standards and for the monitoring of the implementation, the IEAS stated that environmental information and monitoring systems will be established. It is remarked in IEAS that the financing opportunities for the environmental sector will be developed, the investments required for the infrastructure and other sectors will be realized. The IEAS also emphasized that the cooperation between the private and the public sector will be developed with respect to meeting, and financing the requirements of infrastructure as well as operating it.

Moreover, the IEAS admitted that the nonconforming points between the current environmental policies in Turkey as well as the legislation and applications and the EC Acquis Communautaire will be eliminated. Following the harmonization with Acquis Communautaire, indicated the IEAS, steps will be taken for full harmonization through the utilization of modern technologies in the environmental infrastructure and industrial production that are environmentally sensitive. Further, it is assured by the IEAS that appropriate institutional structures are established with suitable budgets for the management of the national legislation and that the necessary sanctions for controlling and penalizing are put in place.

In order to harmonize the national legislation on environment with the Acquis Communautaire in an effective manner, the IEAS admitted the importance of the appointment of a single authority that will take over the responsibility and the duties of a general coordinator are important. This position was given to the Ministry of Environment and Forestry in Turkey. In line with this assignment the institutional infrastructure of the Ministry of Environment and Forestry will be developed in terms of monitoring, permitting,

controlling, and reporting and implementation capacities. The IEAS committed that Turkish environmental policy would be based on following principles:

The right to live in a healthy and balanced environment: According to the Constitution of the Republic of Turkey everybody has a right to live in a healthy and balanced environment. It is the governments and the citizens' duty to develop the environment, protect the environmental health and to prevent the pollution of the environment. The IEAS admitted that in all the activities carried out with respect to the environment this principle will be adhered to.

The integration between the sectors: Protection of the environment is considered as an indispensable part of economic and social development. With this principle, the IEAS demonstrated that the elements of environmental protection will be taken into consideration in the sectoral policies of industry, agriculture, energy, transportation, training, etc.

The user-polluter shall pay: The principle that the polluter would pay is one of the fundamental principles taken into consideration in the preparation of the National Environmental Strategy. The IEAS gave utmost importance to develop and utilize the economic means in preventing and reducing the environmental pollution. Furthermore, the IEAS indicated that it is required to collect the payments for the services provided so that the necessary resources can be created for the investments that are directed towards providing further services for the protection of the environment.

Taking the measures to prevent the pollution: The IEAS signified that prevention of pollution at the source is a much more economic and effective method. For this reason, the IEAS underlined that to ensure the activities that have the least changing effect on the environment, that they pose the minimum risk on human health and environment, pollute the air the least and that the products used can be reused have to be preserved.

Protection of the natural resources: The resources extracted from underground such as the water, petroleum and mines are not unlimited. One of the fundamental principles of sustainable development is to take advantage of the resources in a sustainable manner. The IEAS stressed that care must be taken in the utilization of energy sources that cannot be renewed as well as the underground water resources so that they can continue to meet the needs of our country in a manner that will last a long time.

Sustainable development: The sustainable development principle was first defined by the United Nations in the Environment and Development Conference that was prepared in Rio de Janeiro in year 1992. Sustainable growth means the coordinated performance of the economic, social and technological activities to improve and maintain the quality of the environment for today and as well as the future generations. The IEAS considered sustainable development as a guidance map for resolving the national environmental problems that are prevailing in Turkey in accordance with the economic and social development.

Cooperation between the private-public sector: To overcome the technical and financial difficulties in financing, construction and operating of the environmental infrastructure facilities and with the purpose of being able to offer more economic and high quality service to the public, the IEAS pointed out, the cooperation among the private and public sectors will be developed.

Increasing the environmental consciousness in the public eye and the public participation: The IEAS gave utmost importance to full participation of the whole society in environmental protection issues. Within this framework, importance will be placed on increasing the level of knowledge in the community as well as ensuring that the decision making mechanism is

participated in.⁶⁹⁴

From the date of publishing of IEAS, it seems quite difficult for Turkey to renounce commitments and principles declared in the document. Besides, the IEAS is an official document and it binds the government; it had a concrete and irrevocable consequence in EU-Turkey relations that is opening up of the accession negotiations with the EU on the topic of environment. Therefore, for Turkey, giving up the commitments and principles would mean abandoning the objective of becoming a full member of the EU. Thus, the price of turning back to old policies and norms would be far more than keeping the track with the institutional change towards adapting to the European Environmental Policy. In terms of Europeanization and institutional change, the situation of environmental policy in Turkey – EU relations is a lock-in, which indicates that the impact of Europeanization on domestic institution reached to the extent of an irreversible point.

3.3.1.5. The Last State Level Commitment for Institutional Change in Environmental Policy: The Ninth Five Year Development Plan (2007 – 2013)

The ninth five year development plan (NFYDP) has been the last state level document pronouncing the progress and problems in environmental policy of Turkey. In the NFYDP it is stated that rapid population growth and industrialization continue to be important factors threatening sustainable use of natural resources. On the institutional and administrative issues the NFYDP signified that the uncertainties about the duty and authority distribution among institutions, for the sustainable use of natural resources while protecting the environment without adversely affecting the production process, could not be adequately eliminated. Within the EU harmonization process, the NFYDP asserted that even though progress had been achieved regarding waste management, protection of the nature, noise and environmental impact assessment, many regulations were still needed in this field. However, the NFYDP pointed out that as a result of the excessive amount of costly investments required for harmonization, new financing methods including the participation of the private sector has come into the agenda. In order to protect and maintain the natural vegetation gene source and the biological diversity in Turkey, the NFYDP designated that the need for establishing

⁶⁹⁴ Ministry of Environment and Forestry, *EU Integrated Environmental Approximation Strategy (2007 - 2023)*, 2006.

standards about the use and movement of Genetically Modified Organisms (GMO) and biotechnology products was still continuing. The NFYDP noted that with the ratification of the United Nations Framework Convention on Climate Change (UNFCCC) by the Turkish Grand National Assembly, Turkey became a party to the UNFCCC as of 24 May 2004. The NFYDP drew attention on the need to improve the infrastructure for environmental monitoring, auditing and reporting for increasing their efficiency and to ensure that the information flow and exchange among the relevant institutions are carried out through an integrated system.

The Special Expertise Report on Environment, which the environment part of the NFYDP is based on, states that “Especially, in order to achieve legal regulations required in the process of EU candidacy, the duties and responsibilities of organizations in the field of environment have to be clearly defined and thus the competency conflicts have to be finished and administrative, fiscal and technical capacity must be built for efficient implementation.”⁶⁹⁵ The NFYDP did not say anything new; however, pointing out the progress made in environmental policy and indicating problematic areas in an official document where the planned policies of the State are written, was significant to show the determinism of Turkey to comply with the EU policies and norms about environment.

3.3.2. Institutional Change in Environmental Policy of Turkey

This dissertation acknowledges the fact that institutional change is a matter of *degree*, but suggests that the criterion for deciding whether any shift qualifies as an institutional change should not be the degree of change (i.e. incremental or dramatic), but it should be the *content* of the change. In other words, one should look at the scope of change in the sense that if the shift takes place within the normative core, which forms the defining elements of an institutional setting, then one can talk about a changing institution. As Thelen suggests, “if institutions rest on and reflect a particular foundation...then they should change as a result of shifts of these underlying conditions.”⁶⁹⁶ This is a much more useful approach to institutional change. Focusing on the degree of change as the criterion for defining a change as institutional change is problematic because it is difficult to give an objective answer to the question of the degree or threshold that should be passed in order to define a change as

⁶⁹⁵ State Planning Organization, “*Ninth Development Plan: The Special Expertise Report on Environment*” State Planning Organization Pub., Ankara, 2007

⁶⁹⁶ Cited in Jeffrey Stacey and Berthold Rittberger. Op. cit. 2003, p. 864.

institutional change. A better strategy, therefore, would be to focus on whether there is any change in the defining features or elements of institutions. This method, of course, does not eliminate the degree problem, but it offers a better way for deciding whether an existing institution is changing.

Emphasis on institutional stability or continuity in institutionalist literature should not imply that institutions are immutable structures. Change, either dramatic or gradual, is abundant in the institutional world. However, change might take place within any scope of an existing institutional setting (normative core, goals and instruments), but not all types of changes would qualify as an institutional change. Change in the normative basis of an institution is defined as 'fundamental (primary) change'. This type of change involves a gradual or dramatic shift in the norms, principles, values and collective identity of an institution. It refers to the institutionalization of totally new norms or the transformation of existing institutional norms into a new form.

Adoption of new goals, missions or purposes or adaptation of institutional goals to new situations and times becomes 'strategic (secondary) change'. 'Tactical (tertiary) change' refers to changes in the rules, procedures, and administrative or organizational structures. In this case, only the instruments or means of institutions change. An institution might adopt new policy instruments or new decision-making procedures such as a shift from consensus to majority voting.

Among these three types of changes, only the first one classifies as an institutional change, because in this case, the defining elements of an institution (normative core) take different forms (i.e. change to a new path). As indicated above, institutions rest on a normative basis. Different institutions might have similar instruments and goals but what makes them distinctive are their norms, principles, values and collective identity. In other words, the normative basis (the first component) becomes the defining element in an institutional setting. Any change in this defining element would be considered as an institutional change. Changing goals and instruments; such as adopting new objectives, redesigning organizational chart and developing new resources, strategies, policies that do not alter the normative core, would not be defined as institutional change.

With respect to assessment, grasping primary change creates some difficulties since it refers to changes in institutional norms. For instance, how does one know whether or not there was a shift in the normative basis of an institution? Answering this question is a challenging task since changes in institutional norms are difficult to observe directly. As Finnemore and Sikkink suggest “we can only have indirect evidence of norms just as we can only have indirect evidence of most other motivations for political action (interests or threats, for example)”.⁶⁹⁷ This study also relies on several indirect indicators of changes in institutional norms. The following methods are used to gain a sense of the shifts in the normative basis of an institutional setting: looking at the changes in the behaviors of institutional actors, the changes in legal documents, and checking for any secondary or tertiary change in the institutional setting. In terms of the first method, since norms, which are collective understandings defining appropriate behavior and by this way, set the standards of legitimacy, have some behavioral impacts, one way of grasping changes in institutional norms would be looking at the changes in the behaviors of institutional actors.

Secondly, this study focuses on formal political institutions. This type of institution is usually defined in legal texts. Thus, looking at constitutional or legislative changes, that define the institutional normative basis, would be another way of grasping primary change. Finally, almost every shift in the normative basis of institutions would bring further shifts in the second and third components, which are relatively more observable. In other words changes in institutional norms would lead to changes in the institutional goals and instruments. A new policy, new decision making rules, new members or new organizational structures might be a result of shifts in the normative basis of an institution. That having been said, one should be careful in doing this because the third approach might be misleading in the sense that institutions might change their instruments while sticking to the same institutional norms and goals.

This dissertation considers institutions as formal or informal social structures of norms, rules and practices that regulate (constrain or enable) the course of actions among a group of actors. An institution, which might be a mere structure (e.g. policy area) or a social, political entity (political parties, legislatures etc.), usually consists of three components: ‘normative core, goals and instruments.’ Institutional change refers to any shift in the first component, that is, a

⁶⁹⁷ Martha Finnemore and Kathryn Sikkink. *Op. Cit.* 1998, p. 892.

gradual or total shift in institutional norms, values, principles and identity. In other words, if there is any shift in the first component, then one can talk about a changing institution. Changes in the second and third components should be considered institutional adjustments. Thus, 'path breaking change', here, refers to shifts in the first component. Changes in other components would be 'path following changes'. However, this does not mean that institutional change and institutional adjustment are isolated from each other. They are distinct but related developments in the sense that institutional change is quite likely to lead to certain institutional adjustments, although the reverse is not likely.

Three different but interrelated dimensions of environmental policy in Turkey are observed in this section: Policy Making, Organizational and Legislative Structures. All these dimensions are evaluated through sector analyses, such as air quality, water quality and waste management. In order to find out any shift in the current institutional structure; existing adjustments, changes or transformations and the planned ones in these sectors are elaborated.

3.3.2.1. Institutional Change in Policy Making

Policy making dimension is firstly analyzed in this section as being the means of the environmental policy in Turkey. It is aimed to observe the change in methods and political goals in the field of environmental policy. Furthermore, the degree of the change is also an issue to be addressed. The sectors of; air quality, water quality, waste management, noise, nature protection, horizontal sector, chemicals and genetically modified organisms, nuclear safety, climate change and industrial pollution are evaluated. Evaluation is based on official documents such as National Program of Turkey for Adoption of the Acquis, National Environmental Action of Turkey and EU Integrated Environmental Approximation Strategy.

Air Quality

The main air quality issues in 1990s are firstly the poor enforcement of the ban on household use of high sulfur coal, generally for political reasons. Poor households are unable to pay for converting from coal to natural gas. However, Ankara has experienced an enhancement in Air quality as a result of natural gas instead of low quality coal for domestic heating.⁶⁹⁸

⁶⁹⁸ National Environmental Action of Turkey, 1999, Ankara, p.27.

Secondly, while past measures affecting fuel use for industrial and heating purposes helped improve urban air quality, air pollution from motor vehicles is a persistent and growing problem, especially in cities with high population densities the number of vehicles almost doubled to over four million (about three million cars and the remainder buses and cargo vehicles) from 1990-1995. The car fleet is primarily located in big cities, with the largest number in Istanbul. Against this, use of unleaded gasoline increased slightly from 2% of all petroleum fuels in the early 1990s to 3% in 1994.⁶⁹⁹

Thirdly, the relatively low efficiency of energy use by industries, transport and households results in higher consumption of energy resources and higher levels of pollution; Turkey emits 8.8 kg. of Sulfur Oxide (SO_x) for a US\$1,000 contribution to the GDP each year while the OECD average is only 2.9 kg. for the same economic output.⁷⁰⁰ Overall, Turkey produced \$1.8 units of GDP per kg of oil equivalent consumed in 1994. While this is better than the average of \$1.0 per kg of oil equivalent in lower middle-income countries, the productivity is almost half when compared with energy consumption in high-income countries.⁷⁰¹

Fourthly, limits for SO₂ emissions at power plants were routinely exceeded because of inadequate enforcement of air and utility regulations; According to 1994 measurements, real values ranged from 3,178-6,475 for Yatağan, 4,350-9,450 for Afşin-Elbistan, 2,030-4,823 for Seyitömer, 812-5,233 for Soma, 5,769-8,948 for Orhaneli, 582-1,160 for Çatalağzı, and 9,884- 11,693 for Kangal power stations.⁷⁰²

Fifthly, the heavy reliance on polluting fuels, especially lignite, was creating greater environmental problems, especially when the fuels were used inefficiently. Also, fuel pricing was not consistently applied to control the use of polluting fuels: Unleaded fuel was sold at about the same price as premium leaded fuel, so consumers had no incentive to switch.⁷⁰³

⁶⁹⁹ National Environmental Action of Turkey, 1999, Ankara, p.29

⁷⁰⁰ OECD, Reducing Environmental Pollution: Looking Back, Thinking Ahead, 1994, Paris

⁷⁰¹ World Bank; World Development Indicators, 1997, Washington, DC

⁷⁰² National Environmental Action of Turkey, 1999, Ankara, p.28

⁷⁰³ National Environmental Action of Turkey, 1999, Ankara, p.30

Finally, monitoring of urban air pollution was not reliable, since the number of data collection points in major cities was limited (only two for Adana and nine for Istanbul);⁷⁰⁴ also, the points were changing from year to year, not allowing comparisons over time. Critical information gaps existed about lead and indoor air pollution levels, health effects and economic costs.

In NEAP the offers for solutions of the air quality issues are formulated as: Encouraging wider use of natural gas and high quality coal; develop financing mechanisms for poor households to pay for coal to gas conversion; accelerating the program to promote wider use of lead-free gasoline (through fuel pricing, domestic production of suitable vehicles, import controls, public awareness); improving traffic management in major cities; improving public transport; increasing use of clean and renewable energy sources; introducing widespread energy efficiency programs for industrial, residential and service sector consumers; encouraging and enforcing pollution control and environmental management measures for energy producers, especially power plants and the mining sector; and adopting least-cost energy planning, integrating environmental costs and benefits, to determine the nature and scope of new energy investments.⁷⁰⁵

The 2001 NPAA reminded that the fundamental legal instrument arranging issues relating to air pollution and air quality management in Turkey was the Regulation on Protection of Air Quality enacted in 1986.⁷⁰⁶ The Regulation was dealing with many issues such as air quality threshold values for 17 pollutant parameters, target values for 2 pollutants, warning levels and the measures to be taken when the warning levels are reached as well as other matters relating to measurements and analyses. The Regulation also set forth an emission permit system for industrial facilities and processes.

The 2001 NPAA stated that air quality measurements were being done on nationwide basis, and comprehensive data is available only on two pollutants.⁷⁰⁷ Air quality monitoring was being done by the provincial offices of the Ministry of Health and the results thereof were published by the State Institute of Statistics. The monitoring results were also assessed by the

⁷⁰⁴ National Environmental Action of Turkey, 1999, Ankara, p.31

⁷⁰⁵ For detailed offers for solution of air quality matters: National Environmental Action of Turkey, 1999, Ankara, pp. 120 – 121.

⁷⁰⁶ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁰⁷ Turkish National Program for the Adoption of Acquis (NPAA), 2001

Ministry of Environment annually. In this way, the provinces were classified for the aim of developing policies on the prevention of air pollution and improvement of air quality.

The 2001 NPAA informed that despite the improvement attained in fuel quality, especially in the lead percentage of liquid fuels, ratio of sulphur and benzene represent one of the most important problems due to the fact that the EU fuel quality standards are directly related to refinery investments.

The 2001 NPAA stresses Turkey's international commitments on air pollution by stating that Turkey had ratified international conventions on Long-Range Transboundary Air Pollution and Depletion of Ozone Layer, but has not signed the Convention on Climate Change. According to the 2001 NPAA, Turkey attached great importance on concluding voluntary agreements with various sectors and participation of these sectors in combating against pollution.⁷⁰⁸ In this respect, agreements had been signed on further regression of emissions with the cement industry and on equipping of the new automobiles with catalytic converters and simultaneous application of the same condition to imported motor vehicles with the Turkish Automotive Sector within the framework of a harmonization program.

The final objective of the 2001 NPAA was to transpose related EU Directives into the Turkish legislation and to become a party to Climate Change Framework Convention and the annexed Protocols of the Long-Range Transboundary Air Pollution Convention of 1979 within the framework of common but differentiated liabilities.

The 2003 NPAA stated that the MoE was concentrated efforts on the implementation of the Air Quality Framework Directive.⁷⁰⁹ It had submitted a proposed project to the SPO for approval. This proposed project would carry out an initial assessment of air quality in Turkey. Based on its findings, location of monitoring stations would be determined as would the pollutants to be measured. A slightly competing proposed project by the MoH would locate one monitoring station in each of the 81 provinces. Municipalities and Provincial Governors required technical and financial assistance to ensure full and proper implementation of action plans once appropriate zones and agglomerations have been identified by the MoE.

⁷⁰⁸ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁰⁹ Turkish National Program for the Adoption of Acquis (NPAA), 2003

The IEAS, in 2007, defined the fundamental purpose in air sector as to define, and establish the air quality targets and evaluate the air quality in order to avoid, prevent and reduce the harmful effects that air pollution may have on human health as well as the environment. In order to fulfill this fundamental purpose the IEAS,⁷¹⁰ firstly, committed to define and establish the Air Quality Targets; secondly, to decide on air quality based on defined criteria and methods; thirdly, to collect sufficient information on the air quality and to inform the public in case the thresholds are exceeded; fourthly, to protect the living beings and the environment from the air pollution caused by the exhaust gases originating from the motor vehicles as well as the dangers associated with it; fifthly, to improve fuel quality; and finally to implement action plans for improving air quality and to ensure the usage of environment friendly clean technologies.

As it could be observed, in the sector of air quality, there had been a very limited change in policy making; the objectives and perception of the problem have not been changed but only the policy plans became more concrete and the discussions on air quality issues through the years made the public more informed about air quality policy, thus the people are aware of the harmful effects of air pollution. In terms of institutional change, in air quality sector one could only talk about a slightly change in objectives which hardly indicated a secondary (strategic) change.

Water Quality

The situation in water supply and wastewater issues in 1990s were as such: Public sector distribution networks withdrew 2.96 billion m³ of water in 1992, but only 1.51 billion m³ were recorded as consumed, producing a water loss rate of 49%.⁷¹¹ This suggested substantial physical and administrative losses in the water supply networks. Access to drinking water was limited for village residents and urban slum dwellers; Rapid urban population growth and industrialization have strained liquid waste management systems, and utilities have been unable to keep pace with growing demand, especially in the periphery. Because municipalities were constrained by low sewerage charges, lack of investment capital and inadequate staff, very low levels of domestic wastewater were treated. Only 6% of the population was served by sewage treatment compared to an OECD average of 63%. In 1992, industry and

⁷¹⁰ For a more detailed information see: Ministry of Environment and Forestry, *EU Integrated Environmental Approximation Strategy (2007 - 2023)*, 2006.

⁷¹¹ National Environmental Action of Turkey, 1999, Ankara, p.31

manufacturing discharged 843,334,071 m³ of wastewater and 70,350,019 m³ of sewage; 69% of the wastewater was not treated, 18% received some treatment and 13% received some pre-treatment;⁷¹² The bulk of untreated or partially treated sewage was discharged into surface water; seepage from sewage systems and open solid waste dumps that contaminate groundwater were the main causes of degraded water quality; and Industrial pollution was inadequately controlled, only low levels of industrial wastewater were treated, and discharges from small enterprises were poorly managed because of limited treatment facilities and improper operation. Industries are allowed to discharge wastewater into the local sewerage system, although the Water Pollution Control Regulation contains some restrictions. For example, industries that produce hazardous wastewater are required to pre-treat their effluents before discharging them. However, treatment facilities are limited. Fewer than 20% of enterprises employing 25 or more workers have treatment facilities.⁷¹³ Where they exist, many do not operate properly, if at all.

The solutions offered by the NEAP are briefly as such: Introducing measures to reduce water loss within distribution systems and lower industrial as well as domestic water use, e.g. financial management/cost recovery; increasing the supply of potable water in low-income urban neighborhoods and villages; expanding the quantity and quality of wastewater treatment facilities, and encouraging more private sector involvement/ corporatization of water and wastewater utilities, in provision and management; and enforcing industrial wastewater treatment standards and measures, especially in state enterprises.⁷¹⁴

The rapid social and economic developments taking place in Turkey, lead to a severe increase in water requirement. These developments, according to the 2001 NPAA, increased the water demand, on one side, but also threaten the existence of water resources of proper quality for various purposes of uses and restricted multipurpose consumption of water resources.⁷¹⁵ The quality of inland waters (rivers, natural and artificial lakes) was evaluated on the basis of 20 parameters (pH, oxygen, suspended and dissolved solid substance, nitrate, phosphor,

⁷¹² National Environmental Action of Turkey, 1999, Ankara, p.31

⁷¹³ National Environmental Action of Turkey, 1999, Ankara, p.32

⁷¹⁴ For detailed offers for solution of waste water matters: National Environmental Action of Turkey, 1999, Ankara, p. 122.

⁷¹⁵ Turkish National Program for the Adoption of Acquis (NPAA), 2001

ammonium, faecal coliform and some heavy metals).⁷¹⁶ On the grounds of this evaluation, four classifications were made in the Regulation on the Control of Water Pollution.

The Regulation on the Control of Water Pollution put forward the criteria to classify the ground waters in 3 categories and surface waters in 4 categories making it possible to make water quality planning. The 2001 NPAA specified that the Regulation set forth the principles for the discharge of wastes into ground and surface waters as well as the regions under protection and land use strategies in terms of the reservoirs and lakes used for drinking water purposes. DSI (State Hydraulic Works) continuously monitors the water quality in two natural and two artificial lakes, and in four rivers. Furthermore, the water quality of 126 lakes is also periodically monitored in parallel to the measurements in ground water quality. However, no data bank had been established in Turkey to monitor water quality.

It is asserted by the 2001 NPAA that Ministry of Health had been conducting these works in line with the standards on drinking and tap water quality published by the Turkish Standards Institute in 1984 and within the framework of the “Regulation on the Production, Packaging and Sales of Natural Spring Waters, Mineral Waters, Drinking and Medical Waters”.⁷¹⁷ The NPAA indicated that within the context of the European Blue Flag Campaign, the microbiological quality of coastal waters was analyzed in fifteen-day intervals in some beaches and marinas throughout the tourism season. River pollution, which is mostly due to industrial and domestic wastewaters, is intensely encountered in areas with high urban and industrial concentration.

The 2001 NPAA pointed out that water consumption intensity increased from 7% of the existing resources to 15% thereof in the period between 1980 and 1997 (which was close to the OECD Europe average). It is estimated that this ratio would reach a higher level upon completion of the ongoing and projected water works. The share of irrigation was fairly high in total water consumption. It is expressed in the 2001 NPAA that the maintenance and renovation works in water supply networks were mostly delayed or could not be planned.

Moreover, the 2001 NPAA enounced that Turkey had ratified the below specified international conventions and protocols in water management issues, and had been conducting her works in this respect.

⁷¹⁶ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷¹⁷ Turkish National Program for the Adoption of Acquis (NPAA), 2001

- Convention for the Protection of the Mediterranean Against Pollution (BARCELONA CONVENTION) (Official Gazette No 17368 of 12 June 1981)
- Protocol for the Protection of the Mediterranean Against Pollution Caused By Discharges from Vessels and Planes, Barcelona 1976 (Official Gazette No 17368 of 12 June 1981)
- Protocol for Cooperation and Combat Against Pollution of the Mediterranean with Oil and Other Dangerous Substances under Extraordinary Conditions, Barcelona 1976 (Official Gazette No 17368 of 12 June 1981)
- Protocol for the Protection of the Mediterranean Against Land Based Sources of Pollution, Athens 1980 (Official Gazette No 19404 of 18 March 1987)
- Protocol for Specially Protected Areas in the Mediterranean, Geneva 1982, (Turkey 6 November 1986), (Official Gazette No 19968 of 23 October 1988)
- International Convention on the Prevention of Pollution in Seas Caused By Vessels, (MARPOL-73 CONVENTION) (Cabinet Decree No 89/14547 of 13 September 1989) (Official Gazette No 20558 of 24 June 1990)
- Convention on the Protection of Black Sea Against Pollution (BUCHAREST CONVENTION) (Signed 21 April 1992) (Official Gazette No 21869 of 6 March 1994)
- Protocol for the Protection of the Marine Environment of Black Sea Against Land Based Sources of Pollution
- Protocol for Cooperation in Emergency Situations Against the Pollution of Black Sea Marine Environment by Petroleum and Other Dangerous Substances
- Protocol for the Prevention of Pollution in Black Sea Marine Environment Due to Dumping.⁷¹⁸

Drinking Water

It is specified in the 2001 NPAA that about 78% of the urban population and 62% of the rural population had access to healthy and sufficient drinking water whereas no adequate amount of drinking water was supplied to 20% of the urban population and 17% of the rural population.⁷¹⁹ Besides, no drinking water was supplied to 2% of the urban population and 21% of the rural population at all. The annual per capita drinking water consumption was 74 m³, which was well below the values in Europe reaching an average of 100 m³. According to the data, the NPAA asserted that 58% of the 3216 municipal areas, in which the Bank of Provinces and Ministry of Tourism are active, had drinking water supply network while 4% thereof had drinking water treatment facilities.⁷²⁰ The NPAA remarked that according to the data of 1995, one fourth of the 35.000 villages receiving services of the Directorate General for Rural Affairs had sufficient amount of drinking water whereas 15% of them had drinking water supply of insufficient quality. 7% of those villages did not receive any drinking water at all.⁷²¹

⁷¹⁸ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷¹⁹ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷²⁰ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷²¹ Turkish National Program for the Adoption of Acquis (NPAA), 2001

In 1997, the 2001 NPAA exuded that the bacteriological and chemical quality of drinking water was found to be unacceptable in 12% of the samples taken nationwide. The number of the beaches being rewarded with Blue Flags due to their bathing water quality, increased from 12 in 1994 to 64 in 1999.⁷²² The Drinking Water Standard TS 266 covered the recommended values and maximum limit values. However, this standard did not express any limitation on chloral-organic components.

Infrastructure

In late 1960's, design and construction works for urban drinking and utility water supply were started under the leadership of the Bank of Provinces. It is indicated by the 2001 NPAA that in 1970's, 11 sewerage systems were constructed by the Bank of Provinces; in 1980's, on the other hand, 75 sewerage systems were installed in greater municipalities by the newly established Water and Sewerage Administrations. One fourth of these 86 systems represent only network facilities while the rest of them were the treatment facilities. 250 municipalities had submitted their proposals for sewerage projects they were still waiting, at the date the 2001 NPAA published, for the inclusion of those projects in the investment program of the Bank of Provinces.⁷²³

Minor progress had been achieved in terms of domestic wastewater treatment. Turkish legal arrangements on urban wastewaters were in approximation with the EU Directive on Urban Wastewater Treatment of 1991; however there was not any clear obligation for the municipalities having a population of more than 2000 to collect their wastewaters. The highest permissible BOI concentration is two times higher in the Turkish legislation, and there is no limit value for the total nitrogen and phosphorous concentrations in the discharge of urban wastewaters. The fundamental problem for domestic wastewaters, according to the 2001 NPAA, was that both in terms of the provisions of the regulation and the discharge limits and also the process selection for the treatment system, totally neglect the characteristics of the receiving environment.

⁷²² Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷²³ Ibid.

Industrial Wastewater

One fourth of the 1870 companies with an employment capacity of more than 25 people were equipped with wastewater treatment facilities in early 1990's according to the 2001 NPAA. About half of the companies being equipped in this way were located in Marmara basin. More than 80% of the treatment was primary treatment, whereas 15% represent secondary (biological) and less than 5% advanced treatment. In closed or semi-closed bays and recesses such as Izmir Bay, wastewater was discharged to the sea following biological treatment. Three fourth of the wastewater coming from state enterprises was discharged without any treatment. This ratio was represented by 46% in the private sector. Also, as regards the measurements with respect to total load (public and private sectors), it became evident that 75% of the industrial waters was discharged (mainly into the sea and less frequently into rivers) without any treatment, 20% following treatment and the remaining 5% following preliminary treatment (mainly to rivers and less frequently to urban sewerage). The 2001 NPAA signified that since half of the 190.000 companies (with number of employees less than 25) are active in highly-polluting sub-sectors such as textile/clothing/tanning and metal/machinery/hardware and one third thereof in sectors such as food/beverage/tobacco and forest products/furniture, they caused a severe wastewater pollution problem. Only one third of those companies were located in small industrial zones while 1.4% thereof is active in organized industrial zones.⁷²⁴

It is noted in the 2001 NPAA that although industrial enterprises were allowed to discharge their wastewaters into sewerage systems and deep sections of the sea, the companies may also be asked to apply preliminary treatment before discharging. It is prohibited to discharge dangerous substances into receiving water bodies. The permission procedure had been applied since 1989. Wastewater standards had been set besides the basic principles to be followed for different industries and dischargeable substances. The 2001 NPAA signified that very strict rules had been put into practice especially for the areas used for fish farms. Discharge permits were subject to renewal in three-year intervals. Permit request might be rejected or the permit previously issued might be withdrawn to prevent adverse environmental impacts (such as direct discharge into excessively polluted areas).

⁷²⁴ Turkish National Program for the Adoption of Acquis (NPAA), 2001

All pollutant sources were subject to permit under the Regulation on the Control of Water Pollution, and the industries are divided into 16 categories in terms of their discharges into receiving environment. Some voluntary agreements had been signed between the Ministry of Environment and the industries to construct wastewater treatment facilities. The final objective of the 2001 NPAA about water quality was to harmonize the existing laws, regulations, communiqués and Turkish standards on water pollution management with the EU *acquis* and to implement them accordingly.⁷²⁵

According to the 2003 NPAA, water management structures in Turkey could best be described as complex, confusing and fractionalized in 2002.⁷²⁶ There were overlapping and competing duties and responsibilities between the different organizations and a lack of co-operation.

In 2002, generally, the MoE monitored discharges from point sources. It did not appear to carry out general monitoring of water quality. The State Hydraulic Works (DSI), under the Ministry of Energy and Natural Resources had responsibility for water quantity, but also carried out certain monitoring responsibilities. The Ministry of Health and the Ministry of Agriculture and Rural Affairs also undertook certain monitoring of surface waters. The Bank of Provinces had responsibilities in the areas of planning, construction and financing of plants and drinking water treatment plants in smaller municipalities and rural areas. A major problem was the separation of water quality management from water quantity management, which could not result in an effective integrated approach being taken to water management generally.

Water resources were managed under many different laws and regulations (some dating back to before the establishment of the Turkish Republic). In 2002, this legislation was in urgent need of review and updating to take account of present (EU) policies and practices, and the establishment of the MoE. This review had to also clarify the role of the different institutions involved.

There are 26 river basins in Turkey. Water management was not organized on a river basin basis. The issue of trans-boundary waters was very sensitive and political in Turkey and is the

⁷²⁵ Turkish National Program for the Adoption of *Acquis* (NPAA), 2001

⁷²⁶ Turkish National Program for the Adoption of *Acquis* (NPAA), 2003

responsibility of the Ministry of Foreign Affairs. Turkey was not a party to the UN Convention on Transboundary Waters.

A MATRA-financed project “Implementation of the Water Framework Directive in Turkey” had commenced in 2002.⁷²⁷ This project assessed the financial, institutional and legal implications of implementation.

In IEAS (2007), the fundamental purpose is to minimize all kinds of polluting emissions originating from industrial and Combustion facilities, by taking into consideration the principles of sustainable development. In order to reach this purpose it is assured in the IEAS,⁷²⁸ firstly, adoption and effective implementation of related directives; secondly, formation of the sufficient and necessary capacity for the issuance of permissions to the facilities and establishment of effective monitoring system; thirdly, conducting the studies that will make possible for the application of the best techniques in the Industrial Facilities and Large Combustion Plants, and establishment of cooperation among the related parties on the subject; fourthly, establishment of the institutional arrangements and the infrastructure for compiling, reporting and evaluation of the data pertaining to the industrial facilities and emissions; fifthly, implementation plans including detailed cost analysis for the adoption of integrated pollution prevention and control directive, large combustion plants directive and Seveso II Directive within the scope of the domestic legislation; sixthly, preparation of detailed work plans for harmonization with and implementation of Integrated Pollution Prevention and Control Directive and Large Combustion Facilities Directive; seventhly, preparation of emergency plans by the operators of the facilities within the scope of Seveso II Directive as well as the local authorities, eighthly, in the industries using solvents, preparation of studies aiming to reduce the solvent utilization and limiting the emissions of Volatile Organic Compounds resulting from storing the petroleum products and determination of the storage standards pertaining to this; and finally, preparation of the inventory of the industrial facilities in a manner that will include all the information required by EC legislation along with the number and capacities of the said facilities.

⁷²⁷ Turkish National Program for the Adoption of Acquis (NPAA), 2003

⁷²⁸ For a more detailed information see: Ministry of Environment and Forestry, *EU Integrated Environmental Approximation Strategy (2007 - 2023)*, 2006.

The awareness of public about water quality issues have been arose in the course of the years between 1990s and 2010. The concept of sustainable development got involved in water quality policies and the projects for improving the quality of water became more concrete and applicable. The involvement of sustainable development might counted as a change in normative core of the water quality sector, however, the remaining developments indicated secondary changes, in other words, basic alterations in goals and missions of the water quality policies. There were some signs of institutional change, but it was more clearly a strategic change.

Waste Management

The situation of waste management issues were as such in 1990s: although a solid waste control regulation emphasizing recycling and safe disposal was introduced in 1991, a 1995 survey of nearly 2,000 municipalities indicated that enforcement of the law was low.⁷²⁹ More than half cited economic constraints and a third cited inadequate staff, vehicles or technical skills. One third were not even aware the regulation existed; the level of awareness about industrial and domestic waste treatment and disposal facilities was low, as was also true of programs and policies to reduce, reuse and/or recycle solid wastes; the record of state enterprises was poor. They sent 54% of industrial solid waste for disposal, rather than recycling, reusing or selling it, compared to 21% of private firms.⁷³⁰ As with wastewater treatment programs, they could avoid regulations because one government agency cannot enforce its policies and rules on another; local capacity with respect to financial resources, equipment, staff, is low. Rapid urban population growth has strained the systems for solid waste management and municipalities have been unable to keep up with growing demand in the rapidly expanding peripheries; investment levels were low. Some major cities were just building or operating their first sanitary landfills in 1990s (e.g. Ankara, Bursa, Gaziantep, Istanbul, Izmir, Izmit, Mersin).⁷³¹ Wastewater treatment plants handle only 6% of domestic and less than a third of industrial effluents, and few facilities exist to handle hazardous wastes; and; solutions chosen to date tend to be costly. For example, an integrated waste treatment Project (the first of its kind) is nearly completed for the highly polluted area of Izmit. It includes a sanitary landfill for municipal and industrial solid waste, an incinerator for

⁷²⁹ State Institute of Statistics Environmental Statistics: Municipal Solid Waste Statistics (1991), 1994, Ankara.

⁷³⁰ National Environmental Action of Turkey, 1999, Ankara, p.33

⁷³¹ National Environmental Action of Turkey, 1999, Ankara, p.34

hospital and hazardous waste, a wastewater treatment plant, a sewage interceptor, and river rehabilitation--costing US\$273 million.⁷³² Less advantaged areas will need to find more appropriate technologies.

The options offered in the NEAP are as follows: Strengthening municipal institutions (to generate revenue, coordinate efforts, measure performance, etc.); regionalizing hazardous and clinical waste control/disposal and private sector involvement; developing technology for recycling, resource recovery and waste minimization; and creating a national institutional structure to support the local, regional management and technology development options.⁷³³

The waste management issue in the 2001 NPAA was evaluated under different subtopics. These are: Domestic Solid Waste Management, Medical Wastes, Hazardous Waste Management, Transboundary Movements of Hazardous Wastes, Batteries and Accumulators, Landfill of Wastes, Waste Oils, Polychlorinated Biphenyls and Terphenyls, Packaging and Package wastes.⁷³⁴

- *Domestic Solid Waste Management*

Regulation on the Control of Solid Wastes was enforced on 14 March 1991 for the aim of controlling the adverse effects of domestic solid wastes stored irregularly.⁷³⁵ The Regulation sets forth the technical and administrative rules concerning the collection, transport, recycling and disposal of domestic wastes within a certain system throughout the country, as well as defines the legal sanctions to be applied for the collection and recycling of packaging wastes. Decreasing waste production, recycling of wastes and their disposal without harming the environment are the basic principles of waste management.

In Turkey, stated the 2001 NPAA, the municipalities are authorized and responsible for the collection, transport, recycling and disposal of domestic solid wastes in accordance with the laws on municipalities No 1580 and 3030.⁷³⁶ Within the framework of the regulation, there was a “quota system” based on the recollection of a certain amount of the plastic, metal, glass

⁷³² National Environmental Action of Turkey, 1999, Ankara, p.34

⁷³³ For detailed offers for solution of waste management matters: National Environmental Action of Turkey, 1999, Ankara, p. 123.

⁷³⁴ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷³⁵ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷³⁶ Turkish National Program for the Adoption of Acquis (NPAA), 2001

and laminated cardboard packages of liquid foodstuff and cleaning products put on the market. The responsibility to collect and make reuse of such packages was given to private sector.

- *Medical Wastes*

The studies on the collection, transport and disposal of such wastes are conducted under the Regulation on the Control of Medical Wastes issued on 20 May 1993. In accordance with the Regulation, the basic method applied in the disposal of medical wastes was incineration. The number of incineration plants was limited (6 plants) due to their high operational cost, thus the most preferable disposal method is the second option, which is land filling.⁷³⁷

- *Hazardous Waste Management*

So as eliminate illegal waste traffic from developed countries into Turkey, “Basle Convention” was signed in 1989 and was ratified in 1994. For the aim of setting up a hazardous waste management system, “Regulation on the Control of Hazardous Wastes” was prepared and was enacted in 1995. The waste categories and waste list given in the Regulation were adapted from the Basle Convention. Furthermore, these lists were detailed according to the conditions of our country. Importing of all kinds of waste materials into Turkey was prohibited through the Regulation on Hazardous Wastes Control Management. However, importing of scraps containing metal in the amount of 85% and more is subject to control. These controls were made by the Ministry of Environment since 1993. Moreover, dredging sludge, waste oils, chips, power plant ashes and medical wastes were included in the “Special Wastes” list in this Regulation. Recycling plants for hazardous wastes and final disposal plants are liable for receiving operating licenses from the Ministry of Environment.

The Regulation on Hazardous Wastes Control Management consists of special rules for hazardous wastes, which includes stricter rules than those given in the EU Directives. The amendment made in the Regulation on the Control of Hazardous Wastes, the said legislation was totally harmonized with the EU Directives (94/67/EC, 897/283/EC) on the incineration of

⁷³⁷ Turkish National Program for the Adoption of Acquis (NPAA), 2001

hazardous wastes. The 2001 NPAA stated that a project had been started on the Management of Hazardous and Special Wastes to cover Marmara, Aegean and Mediterranean Regions.⁷³⁸

- *Transboundary Movements of Hazardous Wastes*

Turkey ratified the ‘Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal’ on 20 September 1994. The national legislation (regulation) on the control of hazardous wastes was prepared on the basis of the Basle Convention and was enforced on 27 August 1995. The Regulation provided a detailed explanation of the notification systems for transboundary movement of hazardous wastes, international movement forms, illegal traffic, rules on notification, controls with regard to the import and export of hazardous wastes, and rules on transit procedures. These issues were exactly in line with the Basle Convention. The Regulation on the Control of Hazardous Wastes prohibits importing of all kinds of hazardous wastes into Turkey except for certain metal scraps. The 2001 NPAA highlighted that although the said Regulation is almost in line with the EU Directives, some arrangements are required in this respect.⁷³⁹

- *Batteries and Accumulators*

There did not exist a separate legislation for used batteries and accumulators. These matters are considered under the Regulation on the Control of Hazardous Wastes. However, the 2001 NPAA announced that a draft regulation had been prepared for used batteries and accumulators.⁷⁴⁰

- *Landfill of Wastes*

In Turkey there were three regulations on the landfill of wastes. These were the ‘Regulation on the Control of Solid Wastes’ of 14 March 1991, ‘Regulation on the Control of Medical Wastes’ of 20 May 1993 and ‘Regulation on the Control of Hazardous Wastes’ of 27 August 1995. All the three Regulations are in line with the EU acquis in many aspects.⁷⁴¹ However,

⁷³⁸ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷³⁹ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁴⁰ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁴¹ Turkish National Program for the Adoption of Acquis (NPAA), 2001

there were some minor differences between the Turkish legislation and the EU acquis with regard to the application of natural and synthetic barriers.

- *Waste Oils, Polychlorinated Biphenyls and Terphenyls*

The 2001 NPAA stated that Turkey did not have separate regulations for waste oils, polychlorinated biphenyls and terphenyls.⁷⁴² Such hazardous wastes were controlled by the ‘Regulation on the Hazardous Wastes Control Management’. Waste oils were classified as ‘special wastes’ in this Regulation and the responsibility to prepare the new regulation on waste oil management had been given to the Ministry of Environment. The NPPA announced that the draft regulation is being prepared in parallel to the related EU Directives. In this context, the monitoring system for the creation, collection and transport of wastes, market registry system, waste oil minimization and recycling technologies and the training of the experts working in this field were among the priorities.

- *Packaging and Package wastes*

The 2001 NPAA stated that the studies on the collection, reuse and recycling of packaging wastes were conducted under the scope of the ‘Regulation on the Control of Solid Wastes’ and in line with the principles laid down in the Directive No 85/339/EEC in Turkey.⁷⁴³ There was a collection, reuse and recycling obligation to a certain extent especially for the plastic, metal, glass and laminated glass packages of liquid food and cleaning products as well as boxes.

Nevertheless, the regulation did not cover all products and packages while the package production and packed product consumption increased at a very high pace. According to the 2001 NPAA, operating of landfills by many municipalities, separate collection of such wastes before being transferred to the landfills and recycling of the collected wastes were very important for national economy. The collection and recycling responsibility of the related industrial sectors brought by the existing regulation would be enlarged in line with the scope and objectives of the directive leading a sound and reliable inventory and a common coding system, thus raising awareness and responsibility sharing in the public. To this end, 2001

⁷⁴² Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁴³ Turkish National Program for the Adoption of Acquis (NPAA), 2001

NPAA announced that the ‘Regulation on Package Wastes’ is being prepared on the grounds of the Directive No 94/62/EEC and the Decisions No 97/129/EC and 97/138/EC annexed to this Directive.⁷⁴⁴ 2001 NPAA claimed that there was a requirement for technical assistance of the countries having adequate level of experience in this field, and especially technology transfer and financing would be required for compliance with standards on the heavy metal content of packages, installation of new recycling plants and modernization of the existing ones.

The final objectives of the 2001 NPAA on waste management is to define the plans and programs for harmonization of the Turkish legislation on waste management with the EU acquis, and to identify and implement the duties of the regarded institutions and organizations and to have the Turkish legislation on the management of hazardous wastes aligned with the related EU acquis. Environmental standards would be set and implemented as the result of studies for environmental protection. In this respect, according to the 2001 NPAA, it would be among the priorities to make the regional waste management plans, management of oils, batteries and accumulators and environment-friendly disposal of wastes such as power plant ashes, package wastes.

The 2001 NPAA declared that Turkey supports the Decisions II/12 and III/1 of the Basle Convention “prohibiting the transport of hazardous wastes from the countries listed in Annex VII of the Convention to the countries not covered in this list not only for final disposal, but also for purposes such as recycling and reuse, etc.”⁷⁴⁵ The 2001 NPAA announced that the process for the adoption of Decision III/1 have been completed.

The 2003 NPAA stated that in 2002, the Ministry of Environment, General Directorate of Environmental Pollution Prevention and Control, Waste Management Department had the main implementing responsibilities at national level.⁷⁴⁶ Provincial Governors and municipalities had responsibilities at the local levels.

⁷⁴⁴ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁴⁵ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁴⁶ Turkish National Program for the Adoption of Acquis (NPAA), 2003

Over 90% of municipal solid waste was disposed of illegally and in open dumps, in 2002. Only four of the 81 provinces had sanitary landfill sites.⁷⁴⁷ There were no municipal waste incineration plants in Turkey. Most clinical waste was disposed in unauthorized open dumps. In a 1995 survey, one third of municipalities surveyed were not even aware of Turkish waste legislation. There was one hazardous waste disposal site in Turkey, with an incineration plant and a landfill site, in 2002.⁷⁴⁸ It did not have authorization for operation from the MoE. Over 60% of industrial and hazardous waste was disposed of in uncontrolled landfill sites. Studies indicated that at least three more hazardous waste disposal sites are required.

Turkey had introduced a quota-deposit system to encourage the recovery and recycling of packaging waste, in 2002. Quotas for recovery of packaging waste were being exceeded, but improvements to the system were required to comply with EU requirements. The MoE was developing strategies for implementation of EU waste management obligations through the 'Hazardous Waste Management Project' funded through the national budget. Despite its name, this project also examined municipal waste management and strategies for landfill sites.

The IEAS (2007) assured that solid waste production will be reduced; by using the appropriate methods, necessary measures will be taken to ensure the recycling and systematic/regular land filling of the solid waste; the necessary measures for the management of packaging and packaging waste will be taken by taking into consideration the conditions of competition in the community as well as the requirements of the domestic market; the management of hazardous waste will be ensured; and the harmonization study pertaining to the medical and special waste will be started.⁷⁴⁹

In the years between 1990s and 2010 Turkey have made changes in the rules of waste management, organizations responsible of waste management were reorganized and some new procedures were introduced by several regulations. However, it can be argued that all these changes were tertiary changes; they did not change the core of the waste management policy, even the objectives and mission of the waste management policy remained almost unchanged, thus the change happened in waste management policy was only a tactical change.

⁷⁴⁷ Turkish National Program for the Adoption of Acquis (NPAA), 2003

⁷⁴⁸ Turkish National Program for the Adoption of Acquis (NPAA), 2003

⁷⁴⁹ For a more detailed information see: Ministry of Environment and Forestry, *EU Integrated Environmental Approximation Strategy (2007 - 2023)*, 2006.

Noise

The noise pollution issues only dealt with respect to traffic in 1990s and the basic issues about noise sector were as such: Regulations were not enforced; vehicle noise was not controlled; the public had limited awareness about the harm from excessive noise; local authorities had little capacity to identify and address noise pollution problems; and poorly planned traffic flows created greater exposure to high levels of road noise.

The options for solving the noise pollution in NEAP can be summarized as: updating and publicizing noise control regulations; informing citizens about the risks of exposure to excessive noise, as well as of their rights; developing units within local governments to identify and help resolving incidents of excessive noise pollution; including noise measurements in vehicle inspections; and planning traffic flows and regulating industries with an objective to minimize noise.⁷⁵⁰

The disturbance due to noise is one of the fundamental issues considered under the Environment Law No 2827. The NPAA of 2001 indicated that the basic legal arrangement on this matter is the Regulation on Noise Control of 1986 setting forth the noise limits for settlement areas, the maximum values permissible for train ways, airports, industrial zones and construction sites as well as the noise emission values of outdoors machinery such as the motor vehicles, also laying down the urban planning principles for noise reduction.⁷⁵¹ The final objective of the 2001 NPAA was to adopt and implement the related EU acquis.

It is indicated in the IEAS (2007) that the fundamental purpose about noise sector is to take the necessary measures to prevent noise and protect the areas without noise so that the peace and tranquility that is necessary for the physical and mental health of the people can be established. For that purpose the IEAS committed to realize⁷⁵², firstly, the preparation of noise maps exposure of to environmental noise; secondly, preparation of action plans prepared to

⁷⁵⁰ For detailed offers for solution of noise pollution matters: National Environmental Action of Turkey, 1999, Ankara, p. 124.

⁷⁵¹ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁵² For a more detailed information see: Ministry of Environment and Forestry, *EU Integrated Environmental Approximation Strategy (2007 - 2023)*, 2006.

combat noise pollution; and finally, information of the public on environmental noise and its effects.

The only change in noise sector policy during the years has been the realization of the instruments for achieving the objectives mentioned in 1990s and repeated in 2000s. Therefore it can be claimed that the change remained at level of tertiary or tactical change.

Nature Protection

Turkey contains 75% of the plant species found in Europe. Cherries, apricots, almonds, figs, and tulips all originated in Turkey, as did domestication of plants. Flora includes many wild relatives of important commercial crops such as wheat, chickpeas, lentils, apples, pears, and pistachios. Among continental countries, Turkey ranks ninth in terms of richness of biodiversity; over 33% of its flora are endemic species.⁷⁵³ Studies indicate that there are 163 plant families covering 1,225 types which in turn cover about 9,000 species. These grow naturally and about one third are endemic. Of the total of 2,748, 46 may become extinct, 183 are prone to be harmed, 1,701 are scarce, 5 are safe, 798 are scarce and safe, 49 are vague as to their status, and on the remaining 282 species there is insufficient information.⁷⁵⁴ 3.53. Turkey has about 120,000 invertebrate, 472 fish (192 of which in inner waters), 426 bird, 8 turtle, 49 lizard, 36 snake, about 20 frog and 120 mammal species.⁷⁵⁵ There are relatively few major protected areas covering only 2,700 km² (1990), with another 2,000 km² classified as scientific reserves and national parks. Protected areas totaled 0.3% of national territory, compared to an OECD average of 7.8%.⁷⁵⁶

The main issues identified in 1990s for protecting the nature and preserving the biodiversity are as follows: rapid population growth, urbanization, industrialization, and tourism development put pressure on the land and ecosystems; illegal forest clearing, overgrazing, plowing rangelands, and unsustainable harvesting of threatened plants threaten the environment; dams, wetland drainage, rerouting of surface waters, and poor irrigation practices and civil unrest in the East and Southeast pose risks to ecologically significant areas; government policies regulating land use (especially rangelands and forests) and natural

⁷⁵³ National Environmental Action of Turkey, 1999, Ankara, p. 45

⁷⁵⁴ National Environmental Action of Turkey, 1999, Ankara, p. 45

⁷⁵⁵ National Environmental Action of Turkey, 1999, Ankara, p. 46

⁷⁵⁶ National Environmental Action of Turkey, 1999, Ankara, p. 46

resource management (especially hunting and gathering of wild animals, birds, plants, and fish), are ineffective; pricing policies harm biodiversity through excessive irrigation and fertilizer use; and rapid tourism development and land speculation degrade coastal habitats (especially along the Mediterranean, Aegean and Marmara seashores) as does introducing foreign crops, cultivators and livestock.

The NEAP suggested solutions for the issues about nature protection briefly as follows: establishing protected areas and preparing management plans for endemic species; creating new wildlife sanctuaries, refuge centers, breeding stations, and arboretums; providing training on conservation concepts and principles; developing public awareness through cooperation with all stakeholders (agencies, NGOs, media); and educating local communities in the rational use of natural resources.⁷⁵⁷

In Turkey, as stated by the 2001 NPAA, more than one authority, namely the Ministry of Environment, Ministry of Forestry, Ministry of Agriculture and Rural Affairs, Ministry of Culture, was responsible for the protection of wildlife and natural habitats.⁷⁵⁸ Every institution declared protection zones within the framework of the authority vested to them by the laws, made plans for those zones or set forth the principles for conservation-utilization.

The 2001 NPAA indicated that there exist thirty-two Natural Parks, thirty-five Nature Protection Zones, fifteen Nature Parks, fifty-four Nature Monuments declared as per the Law on Natural Parks; 699 protected sites declared as per the Law on the Protection of Cultural and Natural Heritage; thirteen Specially Protected Environment Areas declared as per the Statutory Decree on Establishment of Authority for Specially Protected Environment Areas; 118 Wildlife Protection Areas declared as per the Law on Land Hunting. Furthermore, nine of the internationally important wetlands were included in the Ramsar Convention List.⁷⁵⁹ The 2001 NPAA marked that the proportion of the areas protected to the surface area was around 2%. It was expected that 1% of the protected areas would be included in NATURA 2000 information network. Besides the areas under protection, it was planned to include some of the potential areas in the network.

⁷⁵⁷ For detailed offers for solution of nature protection matters: National Environmental Action of Turkey, 1999, Ankara, p. 125.

⁷⁵⁸ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁵⁹ Turkish National Program for the Adoption of Acquis (NPAA), 2001

According to the 2001 NPAA, it could be listed among the advantages of Turkey in harmonization process to the EU that Turkey succeeded in preserving a significant amount of her natural areas despite of the intensive pressure on her natural resources; that the country possessed a tradition for the protection of nature in both legal and institutional senses for more than 40 years; that nature protection awareness was well developed in the public; that especially voluntary NGOs took part in protection projects and activities and got more effective in decision-making processes gradually; and that international conventions were ratified by Turkey and international relations were strengthened in this respect.⁷⁶⁰ The 2001 NPAA remarked that Turkey had become a party to BERN, RAMSAR, CITES and Biodiversity Conventions. The studies on the preparation of regulations for the Implementation of Regulations of those conventions were still continued by also considering the related provisions of the EU Directives.

The 2001 NPAA reminded that the Ministry of Environment had prepared the “Draft Law on the Protection of Animals” to prevent unjust treatment to all animals, mainly pets, due to human fault or natural reasons, to provide care, to protect them against ill-treated behaviors and to facilitate their reproduction and protection of their health. Article 11 of this Law set forth provisions on test animals. The 2001 NPAA noted that in spite of the stress on the natural resources, the succession in the protection of wild life and natural habitat was achieved by the rooted legal and institutional past of Turkey. Law No 3167 on Land Hunting dated 1937 and Law No 3116 on Forestry (where the protected forests are defined), were the laws that should be handled primarily in the scope of protected area studies.⁷⁶¹ Until 1983, when the Law No 2873 on Natural Parks put into force, seventeen natural parks, six biogenetic reserves and two biosphere reserve areas were declared by this law (Law No 6831). Afterwards, Law No 2873 on National Parks as the basic law on natural protection was put into force in 1983. Draft law on the Amendment of Law No 3167 on Land Hunting was in the agenda of the Turkish Parliament by the time of the publishing date of the NPAA.

The final objective of the 2001 NPAA on protection of nature was to include, at the first stage, 1% of the protected areas of the country into NATURA 2000 Network, to ensure full alignment with the EU regulations and to implement NATURA 2000 network practices and at the second stage, in parallel to the provisions of the Convention, National Implementing

⁷⁶⁰ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁶¹ Turkish National Program for the Adoption of Acquis (NPAA), 2001

Regulation for CITES Convention was prepared by considering the EU practices. Upon the enforcement of the Regulation, controlled transits at customs gates would be possible for the aim of preventing the plant and animal species under the threat of extinction from getting adversely affected by international trade.⁷⁶²

According to the 2003 NPAA, the 2003 SPAA stated that the MoE had responsibility to co-ordinate implementation of international conventions, including designation of Ramsar sites. It was empowered to co-ordinate the nature protection activities of the other ministries.⁷⁶³ The Authority for Protection of Special Areas (APSA), under the MoE, had management and protection duties for the thirteen SPAs in Turkey. The Ministry of Forestry managed a variety of protected areas and was the primary institution responsible for the protection of wildlife, including wild birds. The Ministry of Culture had defined its own nature protection status for its national sites.

This had led to conflicts and confusion how to manage a site that has received protection status under more than one institution. The efficiency of handling the nature protection issue had to be addressed to resolve potential conflicts among units within the MoE (Nature Protection Department and the APSA) and between the MoE and the other ministries.⁷⁶⁴ Turkish legislation had not been harmonized from a consistent environmental point of view, which presented problems of overlap and lack of legal mandate for institutions responsible for nature protection related subjects. A clear definition and division of responsibilities for the implementing institutions did not exist.

A Global Environment Fund funded project “Biodiversity and Natural Resource Management Project” had been initiated which look at the issues raised above. The project was carried out in collaboration with the MoE and the Ministry of Forestry. The project developed a strategy for rationalizing the legal framework for biodiversity conservation, including removal of overlapping sectoral legislation and policy. The CITES Regulation had been adopted in Turkey and closely followed the requirements of the EU Regulation. The duties and responsibilities for the different management and competent authorities were defined in the Regulation. Monitoring and enforcement at the customs posts was generally ineffective.

⁷⁶² Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁶³ Turkish National Program for the Adoption of Acquis (NPAA), 2003

⁷⁶⁴ Turkish National Program for the Adoption of Acquis (NPAA), 2003

The IEAS (2007) stated that the main purpose is to prevent the loss of biological diversity through the protection and sustainability of the biological diversity, and conserving the flora and fauna and their natural living environments. In order to catch this purpose,⁷⁶⁵ compliance with Acquis Communautaire shall be achieved for the purpose of strengthening existing nature protection system.

It can be argued that even though nature protection was a well handled issue in Turkey since many years, in order to reach EU standards it has a long way to go. Adopting new regulations and reorganizing institutional structure to deal more efficiently with nature protection issues were steps taken forward in nature protection; however, there has been a limited change in the perception of nature protection policy. The problems to be addressed were almost same in 1990s and 2000s, which indicated that despite the developments and reforms the nature protection problems have not been solved and the policy could not be in line with the EU. Thus, in terms of institutional change, some changes occurred in organizational structure and legislative field but they remained at the degree of strategic changes and therefore it was difficult to argue that a primary change happened in nature protection policy, only a secondary change could be observed.

Horizontal Sector

According to the 2001 NPAA Turkey had been experiencing a rapid growth in energy, industry, transport and tourism sectors, nevertheless to a huge immigration from rural areas to urban and coastal areas.⁷⁶⁶ 2001 NPAA argued that all these developments intensified the pressure on the environment and in parallel, revealed the significance of environmental protection and combating against environmental pollution. Consequently, according to 2001 NPAA, legal and institutional structuring efforts had been accelerated in this respect. Furthermore, 2001 NPPA reminded that Constitution of 1982 recognizes the right of citizens to live in a healthy and well-balanced environment, and stipulates that it is the common duty of the state and the citizens to protect environment and to prevent pollution. The Environment Law enacted in 1983 sets forth the framework of environmental management and the related

⁷⁶⁵ For a more detailed information see: Ministry of Environment and Forestry, *EU Integrated Environmental Approximation Strategy (2007 - 2023)*, 2006.

⁷⁶⁶ Turkish National Program for the Adoption of Acquis (NPAA), 2001

legislation, and thus defines the fundamental principles such as polluter pays principle (PPP).⁷⁶⁷

It is stated in 2001 NPAA that the Regulation on EIA prepared in line with the EIA Directive (85/337/EEC and 97/11/EC) and is generally in alignment with the said Directive.⁷⁶⁸ 2001 NPAA admitted that there were minor differences in Annexes which were planned to be revised by the end of 2001.

It is aimed by the 2001 NPAA that increasing efficiency of the EIA process, adopting the Acquis Communautaire of the Community and establishing the required technical infrastructure. As regards the strategic EIA practices, the NPAA stated that the EU Directive was being prepared as a draft and it was planned to conduct the required studies and the regulations in line with the Directive to be enacted. The second objective in the field of EIA was comparison of the EU acquis with the corresponding Turkish legislation⁷⁶⁹ and the measures to be taken for implementing the necessary amendments and modifications

The 2001 NPAA stated that projects were being executed to set up a national environmental database and the technical infrastructure thereof.⁷⁷⁰ Through the Data Base System, the 2001 NPAA argued it would be possible for the institutions to have access to data to be collected throughout Turkey any time they might require. This system, announced the 2001 NPAA, would be integrated with the ‘Public-Net’ (Kamu-Net) Project of the Prime-Ministry.⁷⁷¹ Moreover the 2001 NPAA presented that “The Agreement on the Accession of the Republic of Turkey to the European Environment Agency and the European Environment Information and Observatory Network between the Republic of Turkey and the European Community” was signed.

The 2001 NPAA announced that to ensure access to information on environment, a national plan would be prepared in 2001 for the aim of establishing the required legal, technical and administrative infrastructure in Turkey. This national plan would at the same time define the

⁷⁶⁷ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁶⁸ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁶⁹ “Regulation on the Protection of Air Quality, Regulation on Noise Control, Regulation on the Control of Water Pollution, Regulation on the Solid Wastes Control, Regulation on the Medical Wastes Control, Regulation on the Hazardous Wastes Control Management, Regulation on the Control of Harmful Chemical Substances and Products”

⁷⁷⁰ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁷¹ Turkish National Program for the Adoption of Acquis (NPAA), 2001

accession strategy of Turkey to Aarhus Convention and would accelerate integration process with the European Environment Agency and EIONET.

In 2003 NPAA it is indicated that the Ministry of Environment (MoE) and its provincial offices are the key institutions involved in implementation of the EIA Directive.⁷⁷² Turkey has had an EIA procedure since 1993 and was preparing a revised EIA Regulation to bring it more into line with EU requirements in 2002. Strengthening and harmonization of the EIA process was a critical factor in the approximation process since it is the basis for establishing sound environmental management in Turkey.

The technical capacity of the provincial offices of the MoE and of private capacity in EIA was very weak in 2002.⁷⁷³ Although no new structures are envisaged, existing structures would be required to be modified to redefine job descriptions to take account of additional responsibilities. Further staff was needed, and significant training of staff at provincial and national would be required in EIA practices. EIA guidelines had to be prepared.

The transboundary effects of projects were not taken into account. The transboundary issues in the EIA Directive had not been transposed and Turkey was not a party to the EIA Transboundary Convention. Turkey had not yet started to consider how to implement the SEA Directive in 2002.⁷⁷⁴

A MATRA-funded project would focus on EIA training of stakeholders and strengthening the EIA process. It would also carry out a pilot project study on EIA and a pilot project study on SEA. The Access to Information Directive had not been implemented in Turkey. The legal and technical requirements for implementation were currently at the planning stage. Also at the planning stage is the establishment of an Environmental Information Systems Centre. Turkey anticipated joining the EEA and EIONET in 2002.⁷⁷⁵ A program to develop the necessary administrative structures to comply with the obligations imposed by membership of the EEA would be developed and the technical structures had to be in place by the end of 2002.

⁷⁷² Turkish National Program for the Adoption of Acquis (NPAA), 2003

⁷⁷³ Turkish National Program for the Adoption of Acquis (NPAA), 2003

⁷⁷⁴ Turkish National Program for the Adoption of Acquis (NPAA), 2003

⁷⁷⁵ Turkish National Program for the Adoption of Acquis (NPAA), 2003

The IEAS (2007) stated that the essential aim in the field of horizontal sector is to provide environmental information by establishing Environmental Information System, to establish Turkish Environmental Information Exchange Network to develop the environmental management system targeting the protection of the environment.⁷⁷⁶ To support this aim the IEAS indicated that the applications of EIA will be provided and SEA will be applied.

As it can be seen, the policies and perceptions in the field of horizontal sector have not been changed in the course of the time. Even, there has been no change in the instruments, objectives or mission of the horizontal sector. Thus, it can be claimed that no change had happened in the horizontal sector.

Chemicals and Genetically Modified Organisms

In accordance with Article 13 of the Environment Law No 2872, asserted the NPAA of 2001, protection of the environment is essential in the production, import, transport, storage and use of the persistent chemicals distorting the ecological balance in air, water or soil. “The Regulation on the Control of Dangerous Chemical Substances and Products” covering the management of industrial chemicals having adverse effects on the environment and human health was prepared under the Environment Law by considering the related Directives of the European Union, and was enforced in 1993.⁷⁷⁷

This Regulation, articulated in the NPAA of 2001, arranged the import, labeling, packaging, sales and storage of dangerous substances and preparations, defines the responsibilities of those working with dangerous substances and preparations, brings along prohibitions and restrictions on the use and marketing of Asbestos and Polyhalogenous Organic Compounds and mixtures thereof and identifies the maximum mercury amounts to exist in the batteries and accumulators.⁷⁷⁸ The NPAA of 2001 continued that the labeling information, risk symbols and combinations, security expressions and combinations, danger signs and expressions of 500 chemical substances are enlisted in the Annex of this Regulation. Under this Regulation, the NPAA of 2001 maintained, the Chemical Security Commission had been set up under the coordination of the Ministry of Environment from among the representatives

⁷⁷⁶ For a more detailed information see: Ministry of Environment and Forestry, *EU Integrated Environmental Approximation Strategy (2007 - 2023)*, 2006.

⁷⁷⁷ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁷⁸ Turkish National Program for the Adoption of Acquis (NPAA), 2001

from the related authorities such as the Ministry of Health, Ministry of Agriculture and Rural Affairs, Ministry of Labor and Social Security, Ministry of Industry and Trade, Under-Secretariat of Foreign Trade and Under-Secretariat of Customs and the universities and representatives from the industry for the aim of making decisions on the efficient management of chemicals and conducting the necessary works.

The Regulation had to be revised for full harmonization with the EU acquis. According to the NPAA of 2001, the related studies had been started together with the Chemical Security Commission. Turkey had signed the “Rotterdam Convention” on pre-notified acceptance system to be applied in the international trading of certain chemical substances and pesticides. The studies were still ongoing in the date of the 2001 NPAA for Turkey to be a party to the Convention. Moreover, Turkey is a party to the ‘Montreal Protocol’. The final objective of the NPAA of 2011 about chemicals was to adopt and implement the related EU acquis.

The short term objectives of the 2001 NPAA about chemicals were enforcement of the revised version of the Regulation on the Control of Dangerous Chemical Substances and Products; enforcement of the communiqué on the list of dangerous substances; enforcement of the Regulation on the classification of dangerous substances and preparations and determination of their labeling information; enforcement of the new asbestos provisions; enforcement of the communiqué on the content and format of Security Information Forms. The medium term aims of the NPAA of 2001 were preparation of the communiqué on the risk assessment of existing substances; preparation of the communiqué on test methods; preparation of the chemicals inventory; preparation of the list of existing substances; laying down the provisions on the marketing and restriction of other substances and preparations as per the community directive; preparation of the Drafts on mixtures containing PCB, PBB and PCT substances

According to the 2003 NPAA, chemicals control was the responsibility of the MoE. Some 400-500 chemicals were regulated in Turkey, most of which were imported.⁷⁷⁹ Turkey had signed the Rotterdam Convention Prior Informed Consent Procedure.

⁷⁷⁹ Turkish National Program for the Adoption of Acquis (NPAA), 2003

In Turkey, stated the NPAA of 2001 that there did not exist any legal arrangement on the genetically modified organisms, precautionous release of such organisms to the environment and the way they are put out in the market.⁷⁸⁰ The final objective of this field in the 2001 NPAA was to adopt and implement the related EU acquis.

The 2003 NPAA asserted that there was no legislation fully transposing the requirements of the genetically modified organisms Directives in 2002.⁷⁸¹ Responsibilities for the management of GMOs and GMMs had not been finalized. The MoE was likely to have a coordination role. An overly complicated proposal suggested the Ministry of Health, Ministry of Agriculture and Rural Affairs and the Ministry of Industry and Trade would all have management responsibilities.

In chemicals and genetically modified organisms sector, the IEAS (2007) stated that with the Directives for which harmonization will be established the determination of the full specifications of the chemical substances and Preparations and the GMOs, establishment of the risks associated with the danger posed by these materials and substances, determination of the necessary safety measures, and the implementation of the necessary policies and programs for their controlled utilization from the time they are manufactured to the time that they are disposed of are essentially aimed. In order to accomplish these purposes the IEAS suggested firstly,⁷⁸² the inappropriate utilization of the dangerous chemicals will be prevented and the adverse effects on health and environment due to accidents will be reduced; secondly, a common notification and information system with regard to specific dangerous substances will be set up and reliable products will be introduced to the market; thirdly, the health of humans and environment will be protected through international information Exchange pertaining to the risks that the chemicals carry; fourthly, as a result of the implementation of the Directives, the dangerous/hazardous waste will be reduced as the manufacturing and utilization of the dangerous chemicals are limited or prohibited; fifthly, the adverse effects of biocides on the human and environment health will be reduced; sixthly, with the implementation of ILU, better and reliable information pertaining to the risks of the chemicals will be obtained; seventhly, the utilization of animals for experimental purposes will be reduced and appropriate methods of experimentation will be applied; and finally, to be able to

⁷⁸⁰ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁸¹ Turkish National Program for the Adoption of Acquis (NPAA), 2003

⁷⁸² For a more detailed information see: Ministry of Environment and Forestry, *EU Integrated Environmental Approximation Strategy (2007 - 2023)*, 2006.

implement the GMO Legislation, the risk that GMOs are left around accidentally will be reduced and their production will be taken under control.

It can be observed that the policy area related to chemicals and GMOs got extended in the course of the years between 1990s and 2010 and it can be detected that most of the issues mentioned in policy documents in 1990s were not in the agenda of 2000s, which implied that those problems were overcome. Moreover, the general approach to chemicals and GMOs seemed to be changed in Turkey during the years; not only providing information and reduction of the risks were in policy agenda but prevention of the risks at their sources has become a principle of policies about chemicals and GMOs, which indicated a change at the core of the policies. Thus, in terms of institutional change, beside the secondary changes a primary change has also occurred in the field of chemicals and GMOs; therefore it can be argued that an institutional change appeared in chemical and GMO policies.

Nuclear Safety

The legislation applicable to the Turkish Atomic Energy Agency was based on the 'Basic Safety Standards' of International Atomic Energy Agency and the revisions are made on a regular basis by closely following the recent developments up-to-date. The final objective of the NPAA about of 2001 Nuclear Safety was the harmonization of the existing legislation of Turkish Atomic Energy Agency with the related EU legislation.⁷⁸³

The 2003 NPAA indicated that the Turkish Nuclear Energy Association had full responsibility for implementation of the EU nuclear safety *acquis* in 2002.⁷⁸⁴ There were no nuclear power stations in 2002.

Many of the general requirements of the basic safety standards Directive and the medical exposure Directives had been implemented, although monitoring and reporting requirements need strengthening. New legislation was required to implement the Directive on outside workers.

⁷⁸³ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁸⁴ Turkish National Program for the Adoption of Acquis (NPAA), 2003

Thus, it can be argued that in the field of nuclear safety the misfit between Turkey and the EU was not broad and consequently there was no need for institutional change in order to come in line with European nuclear safety policies. Some minor arrangements were made in order to remove little incompatibilities.

Climate Change

The 2001 NPAA signified that within the framework of protecting the global climate system and with regard to the responsibilities of Turkey, studies were still continued to get involved in the process of Climate Change Framework Convention by considering the requirements of the growing population and in line with the principle of common but differentiated responsibilities.⁷⁸⁵ The final objective of the NPAA 2001 in the field of climate change was to adopt and implement the related EU *acquis*. The medium term objectives were to prepare the emission inventory by identifying the emission factors required for air quality management; and to make the arrangements aiming to increase the energy efficiency and to amplify energy savings for the aim of controlling and decreasing greenhouse gas emissions caused by transportation, energy, industry and households.

Industrial Pollution

Implementation of the industrial pollution control sector was at an early stage of development at 2002 in Turkey. The issue was not addressed in the NPAA, studies on implementation plans had not yet been commenced and competent authorities not finalized. The MoE, Ministry of Health and Ministry of Labor and Social Security were all likely to have a role to play and had to co-operate and co-ordinate any implementation strategies. Considerable technical assistance was required to develop an integrated implementation plan for this sector of the EU environmental *acquis*.

The fundamental purpose in IEAS (2007) about the industrial pollution sector is to minimize all kinds of polluting emissions originating from industrial and Combustion facilities, by taking into consideration the principles of sustainable development. In order to accomplish this primary objective the IEAS committed that, firstly, by taking into account the investment needs of the facilities and the realization periods needed for these investments, the related

⁷⁸⁵ Turkish National Program for the Adoption of *Acquis* (NPAA), 2001

directives will be adopted and implemented in an effective manner. Secondly, the sufficient and necessary capacity will be formed for the issuance of permissions to the facilities, related with the environment by one authorized entity and for an effective monitoring system to be established. Thirdly, to conduct the studies that will make possible for the application of the best techniques in the Industrial Facilities and Large Combustion Plants, and to establish cooperation among the related parties on the subject. Fourthly, the institutional arrangements and the infrastructure for compiling, reporting and evaluation of the data pertaining to the industrial facilities and emissions will be established and this will also make possible for the public to Access the necessary information. Fifthly, implementation plans including detailed cost analysis for the adoption of integrated pollution prevention and control directive, large combustion plants directive and Seveso II Directive within the scope of the domestic legislation. Sixthly, detailed work plans will be prepared for harmonization with and implementation of Integrated Pollution Prevention and Control Directive and Large Combustion Facilities Directive, and in the process the duties, responsibilities and authorities of the institutions and the establishments will be taken into consideration. Seventhly, emergency plans will be prepared by the operators of the facilities within the scope of Seveso II Directive as well as the local authorities. Eighthly, in the industries using solvents, preparation of studies aiming to reduce the solvent utilization and limiting the emissions of Volatile Organic Compounds resulting from storing the petroleum products and determination of the storage standards pertaining to this. Finally, the inventory of the industrial facilities will be prepared in a manner that will include all the information required by EC legislation along with the number and capacities of the said facilities.

As it can be observed, at the beginning there was almost no policy about industrial pollution in Turkey. Therefore, there was a wide misfit between Turkey and the EU. Consequently a very comprehensive policy on industrial pollution has been developed at 2000s in Turkey. Thus, the industrial pollution policy has changed from nothing to a widespread policy area. Consequently, it can be claimed that, in terms of institutional change, any change occurred from zero is a primary change; accordingly, there has been a primary change in the industrial pollution policy.

3.3.2.2. Change in Organizational Structure

Organizational structure constitutes a significant research area in the analysis of institutional change as it is forming the concrete entities in which the institutional norms emerge and policies made and implemented. It is aimed to observe the change in general organizational structure as forming new institutions and revising the existing ones. Furthermore, the degree of the change is also an issue to be addressed. The sectors of; air quality, water quality, waste management, noise, nature protection, horizontal sector, chemicals and genetically modified organisms and nuclear safety are evaluated. Evaluation is based on official documents such as National Program of Turkey for Adoption of the Acquis, National Environmental Action of Turkey and EU Integrated Environmental Approximation Strategy.

Air Quality

The 2001 NPAA stated that there was no requirement for any amendment to be made in the existing institutional structure in the legislative harmonization process.⁷⁸⁶ However, for an effective implementation of the legislation, the responsibilities of the Ministry of Environment and other related institutions had to be clearly defined and the institutional structure of the Centre for Public Work had to be modified. The 2001 NPAA also admitted that there was a requirement for the employment of additional specially trained staff for the adoption of the *acquis*, implementation of the directives on air quality, issue of permits or approvals, supervisory activities, follow-up and monitoring of the facilities and activities, collection of data and analysis and reporting requirements. The 2001 NPAA determined its objectives within two different time periods as short and medium term objectives. The Short Term objectives were as follows:

- Adoption of certain sections of the proposal (98PC0415) made for the amendment of Directives No 89/369/EEC, 89/429/EC, 94/67/EEC and 88/609/EC;
- Determination of the provisions of 96/12 that relate to definition of regions and settlement areas as well as the warning levels, adoption of the provisions on public announcement mechanisms and designation of the authorized institutions, and training of the personnel of such authorized institutions;
- Starting the preparation of inventories for air pollutants and greenhouse gas emissions;
- Development of programs for an effective implementation of the Directives and Decisions to be adopted;

⁷⁸⁶ Turkish National Program for the Adoption of Acquis (NPAA), 2001

- Determination of equipment requirements for the most effective practices possible (evaluation of the existing observation stations, designation of the number of stations to be improved and to be newly established, information network, equipment to be used in inspections, etc.);
- Making decisions on staff and training requirements for an effective implementation and execution of Directives and Decisions;
- Preparation of inventories on measurement stations, their locations and the measurement techniques used;
- Determination of the stations to be included in the observation network after completion of the necessary improvements and the locations where the new observation stations are to be installed;
- Development of criteria for the determination of settlement areas to be observed under the scope of the Framework Directive on Air Quality and preliminary evaluation of air quality (ozone issue will be attached importance in this respect);
- Development of a quality assurance program and the definitions of the model techniques to be used;
- Start up of preparations of an emission inventory for air pollutants and development of programs for air quality management.⁷⁸⁷

The Medium Term objectives determined in 2001 NPAA on Air quality are as follows:

- Exchange of opinion on the Directive No 88/609/EEC and the amendment Proposal thereof and the Directives No 99/13/EC, 94/63/EC, 97/68/EC, 98/70/EC, 99/13/EC and 99/32/EC;
- Adoption of the Directive No 96/62/EC and the annexed Directives thereof and the Council Directive proposal (98PC0415) amending 98/70/EC, 99/32/EC and 88/609/EEC;
- Adoption of the Decisions No 96/511/EC and 97/101/EC;
- Setting up of the emission inventories for all pollutant sources;
- Laying down of programs for reducing of greenhouse gas emissions;
- Creating a monitoring and reporting system for air quality;
- Creation of a quality assurance program and determination of the models that may be used;
- Preparation of emission inventories.⁷⁸⁸

The 2003 NPAA asserted that both the Ministry of Environment and the Ministry of Health (MoH) had important roles in the implementation of air quality legislation.⁷⁸⁹ There was not a clear designation of competencies, duties and responsibilities between these two ministries which lead to dispute and conflict. The Ministry of Environment had responsibility (under the Environment Law) to monitor air quality, but did not have the staff or resources to do this – the Ministry of Health had taken over this role by the year 2002. The MoE carried out certain monitoring of air emissions from industrial installations. Operators were required by law to undertake self-monitoring, but this did not often happen in practice. Operating licenses were approved by the MoE but issued by the MoH which appeared to be an unnecessary additional administrative burden both for government and industry.

⁷⁸⁷ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁸⁸ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁸⁹ Turkish National Program for the Adoption of Acquis (NPAA), 2003

The 2003 NPAA pointed out that the Ministry of Energy and Natural Resources had responsibility for implementing EU legislation on fuel quality and on LCPs.⁷⁹⁰ Turkey was heavily reliant on the use of low-quality lignite in LCPs for electricity generation, and heavy investment was required to bring LCPs up to EU standards, in particular for SO₂ and dust emissions. Refineries produced heavy fuel oil with high sulphur content. Similar problems were seen in the production of diesel fuel and leaded petrol was marketed in Turkey. The Ministry of Industry and Trade has responsibility for the implementation of Directive 97/68/EC on non-road mobile machinery emissions.

The IEAS states that it is necessary to strengthen institutional capacity for the implementation of other directives about air quality, by taking The Directive of Air Quality Framework as first. Within this context, according to the IEAS, the establishment of the necessary technical infrastructure, its operation and inspection and the training of the personnel to be employed in these areas carry great importance for the effective implementation of the directives generally in Turkey. The IEAS informs that measurement devices are required for both effective monitoring of the air quality and for reaching the necessary standards. The establishment of the monitoring systems is considered important for full implementation of Air Quality Framework Directive and the other directives such as the Fuel Quality, and the Emissions Arising from the Vehicles.

The requirements and defined situation on organizational structure and personnel needs in air quality sector at 1990s and 2000s appeared to be similar. No new institutions have been built or necessary reformation in existing ones could be observed. The need for educated and qualified staff and clarifying the responsibilities of related organizations has continued to be pronounced in official documents but there have been no considerable development in both of these areas. Thus, it can easily be argued that in terms of institutional change, no progress in organizational structure has happened in air quality sector.

Water Quality

The 2001 NPAA manifested that the central and provincial offices of the Ministry of Environment had to be strengthened.⁷⁹¹ There was a requirement for especially trained and

⁷⁹⁰ Turkish National Program for the Adoption of Acquis (NPAA), 2003

⁷⁹¹ Turkish National Program for the Adoption of Acquis (NPAA), 2001

qualified personnel and administrators. Since more coordination was required, inland waters and coastal waters had to be managed in concordance with each other. Furthermore, for the high-quality ground waters to be accessible only by high-quality purpose of uses, coordination of ground and surface waters had to be ensured leading to co-management of ground and surface waters. In environmental infrastructure investments, privatization had to be accelerated and the private sector participation had to be emphasized.

It is asserted by the 2001 NPAA that adoption of the EU acquis made it an obligation to amend the legislations of the related institutions and organizations and/or to set up a new legislation.⁷⁹² Completion of the harmonization works would compel revision of the existing systems and realization of new investments. According to the 2001 NPAA, adoption of the EU acquis on water pollution would necessitate a notable increase in the number of the personnel currently employed for the control of water pollution.

According to 2003 NPAA there was a need for increased numbers of staff and training to ensure effective implementation and enforcement of the water legislation in 2002.⁷⁹³ Only about 12% of the population was connected to sewage treatment plants. Significant infrastructure investments were required here and for the drinking water Directive.

The IEAS (2007) admitted that there is need for comprehensive studies to be conducted for the strengthening of the institutional structure for all the directives related with this sector as well as carrying out the requirements of Integrated Pollution Prevention and Control Directive.⁷⁹⁴ According to the IEAS, it is required to adopt an integrated approach that will cover all the receiving environments together. Within this context, it is targeted for redefining the authorities and responsibilities of the institutions that can grant permits with respect to the environment in line with a procedure, so that a single agency can be formed for giving permissions or coordinating the activity. Within the framework of IPPC Directive, the IEAS asserted, it is required for the determination of the investments to be made on the basis of sectors and the information accumulation with respect to the application of best technique must be increased while the institutional capacity of the public sector must be strengthened.

⁷⁹² Ibid.

⁷⁹³ Turkish National Program for the Adoption of Acquis (NPAA), 2003

⁷⁹⁴ Ministry of Environment and Forestry, *EU Integrated Environmental Approximation Strategy (2007 - 2023)*, 2006.

According to the IEAS, the institutional and technical infrastructure must be strengthened with respect to the monitoring, reporting and inventory taking of the emissions originating from the industrial facilities including the large combustion facilities, within the scope of the related directives. The IEAS pointed out that especially the Directives taking place under Industrial Pollution and Risk Management, in both public and private sector, need high investments to strengthen the infrastructure. The costs for harmonization and application (personnel need...etc.) are given as estimates as the existing environment management structure must be updated and as the studies continue. Due to the existing situation, according to the IEAS, to apply The Directives about Industrial Pollution and Risk Management, nearly 700 personnel and 9 million Euros per year are estimated.

The commitments in 1990s and 2000s in water quality sector about organizational structure appeared to be ambitious; however, during the years since 1990s there has been no significant improvement in institutional structure and no new organizations related water quality issues has been formed. Even though the urgent need for new institutions, reformation in existing institutions and trained staff has been emphasized; only a limited amount of personnel, whose qualifications were questionable, had been recruited to the institutions about water quality. Therefore, although, assertive commitments made in official documents about institutional change on organizational structure in water quality sector, there was hardly an institutional change. Let alone a primary change, even it is difficult to mention any secondary or tertiary change.

Waste Management

According to the 2001 NPAA it was of great significance to strengthen the administration both at the central and local level of government for the implementation of waste management systems. It was necessary to employ sufficient number of qualified personnel and to apply the required training programs, also to determine the amount and content of the hazardous waste inventories on a regional base.

The 2001 NPAA stated that it was also required to prepare management plans and required investment programs for the purpose of ensuring harmonization with the Directive No

91/689/EEC on hazardous wastes.⁷⁹⁵ With regard to the management of hazardous wastes, claimed the 2001 NPAA, it was necessary to prepare training programs, set up a hazardous waste information system in line with the list of hazardous wastes and the data available thereon, and also to put into service the planning systems for the hazardous waste management⁷⁹⁶.

The 2001 NPAA also admitted that harmonization of the waste management practices with those of the Community and the implementation thereof would raise an additional staff requirement both at the central organization and the provincial offices.⁷⁹⁷ This requirement would be mainly for specially trained personnel.

According to the 2003 NPAA, waste management policy was a significant problem for Turkey. Municipal taxes were not sufficient for development of proper landfill sites. There was significant scope for expansion of resources and activities in both implementation and enforcement of existing national legislation. Enforcement mechanisms needed strengthening at all levels of government. Additional staff and training were required to ensure implementation of EU obligations at national, provincial and municipality level. Considerable research was needed to determine the most appropriate waste management strategy, infrastructure needs and investment strategies.

The IEAS (2007) asserted that the strengthening of the institutional structure on national and local level is very important.⁷⁹⁸ For this purpose, according to the IEAS, the institutional structure of the Ministry of Environment and Forestry and the local administrations must be strengthened so that the roles and responsibilities of the different parties are clearly defined and the policy, planning and project applications pertaining to the waste management can be controlled. It is estimated by the IEAS that approximately 3000 additional staff will be needed for the full harmonization of the waste sector. Cost to be derived from staff is estimated to be 340 million Euro for the first 20 years and it is planned that this cost will be covered by COB and municipalities.

⁷⁹⁵ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁹⁶ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁹⁷ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁷⁹⁸ Ministry of Environment and Forestry, *EU Integrated Environmental Approximation Strategy (2007 - 2023)*, 2006.

In the waste management sector, although the need for a new organizational formation and additional staff has been stressed; there has been no substantial progress in this field within the course of the years until 2010. Thus, no institutional change in organizational structure of the waste management system could be observed.

Noise

The 2001 NPAA announced that a testing and certification body was to be established.⁷⁹⁹ The responsibilities would be clearly defined before making any additional institutional change. The NPAA of 2001 claimed that an effective implementation can be possible only with the efficient monitoring and inspection activities of qualified personnel. For this reason, more personnel had to be employed to make regular and/or spontaneous control of the industrial products in use and to conduct regular controls for the verification of production. The personnel to be employed in this regard had to be trained on the monitoring, measurement, analysis, reporting and inspection issues.

The short term objectives of the 2001 NPAA in the field of noise from vehicles and machinery were developing programs for noise reduction; defining the authorized bodies; and approximating the EU *acquis*.⁸⁰⁰ The medium term objectives of the 2001 NPAA were; employing and training the necessary personnel; setting up accreditation and certification units, implementation of the legislation.

According to the 2003 NPAA, the necessary institutional structures and procedures for implementing the noise *acquis* were lacking. The Regulation on Noise Control was revised, and implementation measures such as measurement, analysis and reporting on noise, have been taken thereafter⁸⁰¹. It was anticipated by the NPAA that the majority of the implementing measures will be taken 2004-2007.

The IEAS (2007) states that the technical and administrative infrastructure of the Ministry of Environment and Forestry, municipalities and mayors' offices, and the Ministry of Transportation as well as the Ministry of Public Works and Settlements (General Directorate of Highways) must be strengthened so that the maps and the action plans that are foreseen in

⁷⁹⁹ Turkish National Program for the Adoption of *Acquis* (NPAA), 2003

⁸⁰⁰ Turkish National Program for the Adoption of *Acquis* (NPAA), 2001

⁸⁰¹ Turkish National Program for the Adoption of *Acquis* (NPAA), 2003

the Directive for the Assessment of the Environmental Noise and Its Management can be prepared, approved and the noise can be controlled. Within this context, according to the IEAS, the noise units must be established at the institutions which are responsible for the preparation of the action plans and noise maps and furthermore the sufficient amount of personnel must be employed and trained with respect to the subject. With respect to the implementation; the IEAS pointed out that the implementation plans to reduce the noise on central and local level must be developed, the noise measurement quality control center must be established and the permissioning and inspecting capacity must be developed.

Within the scope of year 2004 EU Financial Cooperation Program, the IEAS assures that the legislation which was reflected via “The Project of Strengthening the Capacity of the Ministry of Environment And Forests in The Field of Noise Management.” that was started in March 2006 will be reviewed and the institutional and administrative capacity will be strengthened for its application.

According to the IEAS, for the complete harmony of the noise sector, nearly 900 additional personnel are needed. The personnel cost is estimated as 12 million Euros/year. This cost will be covered due to the duties and responsibilities by The Ministry of Environment and Forestry, The Municipalities, The Ministry of Transportation, The Ministry of Public Works and Settlements (The General Directorate of Highways).

In the noise sector, although it has been assertively pronounced that reformation and change in organizational structure and recruitment was essential, there has been almost no advancement since 1990s. The requirements for establishing new institutions and employing trained staff have been concretely expressed; even the estimated costs have been calculated for the anticipated improvements, during the years until 2010; however, there has been no considerable development in the noise sector. Therefore, in organizational structure there has been no institutional change at the field of noise.

Nature Protection

The capacities of service producing institutions on nature protection (especially The Ministry of Forestry, The Ministry of Agriculture and Rural Affairs, The Ministry of Culture) had to be strengthened and in this context, the results on institutional strengthening area of the project

“Biological Diversity and Natural Resources Management” had to be implemented. According to the 2001 NPAA the existing statutes and protected areas in line with the new arrangements had to be reassessed.⁸⁰²

As regards the adoption and implementation of the acquis, the 2001 NPAA suggested that there was a requirement to put into practice a foreign language training scheme and a national-international training program (internship courses, etc.) for the personnel employed or to be employed in getting acknowledged, interpreting and implementing the acquis. Also, the personnel had to be trained on the use of Internet extensively.

The investment which had to be done in order to comply with the objectives stated by the NPAA was to install the information network and computer system required for access to the legislation and information, and to establish Geographic Information Centers for monitoring and evaluation purposes in protected areas. Moreover, for the animals seized at the customs offices or at various sales points due to illegal trading for the aim of providing a healthy environment until the completion of the related customs proceedings, ‘Care Centers’ had to either be created or established at the national zoos, and it was also required to establish ‘Rescue Centers’ either within local zoos or individually.

According to the time schedule foreseen by the 2001 NPAA, the short term objectives of nature protection are; first under the scope of the Global Environment Facility Project, the laws on the protection of nature would be revised and the requirements for amendments, modifications and revisions would be defined by making comparisons with the EU acquis. Second, in line with the provisions of the CITES Convention enforced on 22 December 1996 in Turkey, it was required to prepare the CITES National Implementing Regulation until October 2001. Third, the Law on the Protection of Animals was expected to be legalized.⁸⁰³ In medium term, the necessary amendments would be made; new arrangements would be drafted and brought before the Parliament and all the areas under the scope of NATURA 2000 would be included under the observation system.

⁸⁰² Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁸⁰³ Turkish National Program for the Adoption of Acquis (NPAA), 2001

The 2003 NPAA pointed out that the MoE had responsibilities for co-ordination in the field of nature protection implementation⁸⁰⁴. The Ministry of Forestry, Ministry of Agriculture and Rural Affairs and the Ministry of Culture also all had implementation responsibilities, some of which were conflicting or duplicating.

The IEAS (2007) signified that the institutional structuring is planned to be resolved under a single institutional structure with the intention to implement legislation taken up during the cohesion process.⁸⁰⁵ A two-phase approach has been adapted to arrive at final solution. According to the IEAS the current infrastructure of personnel and workload are not sufficient to operate the currently existing work and processes. Furthermore, the personnel infrastructure for scientific authority planned to be formed under the scope of cohesion work needs to be established.

It is asserted by the IEAS that the implementation of cohesion processes by existing institutions until a new institutional structure and legislation are formed; Following the constitution of arrangements of nature protection law and its related by-laws, the establishment of a new institutional structure and scientific authority is planned.

It is anticipated by the IEAS that the scientific authority should be responsible for the implementation of the scientific aspects of the Bird and Habitat Directives, legislation regarding CITES and the Directive for Zoos and also the scientific content of other international treaties. This structure is also planned to carry responsibilities such as creating awareness for biological diversity, training, planning of inventory work, its implementation, evaluation, coordination of scientific research, CITES permits and licensing. On the other hand, according to the IEAS, the development of existing central and rural organization is planned in order to include the physical protection, planning and management capacities of Natura 2000 areas.

In the organizational structure of nature protection sector, between the years of 1990s and 2010, despite commitments for deep reformation, only minor changes occurred. Some special institutions have been established for special reasons such as care centers or rescue centers;

⁸⁰⁴ Turkish National Program for the Adoption of Acquis (NPAA), 2003

⁸⁰⁵ Ministry of Environment and Forestry, *EU Integrated Environmental Approximation Strategy (2007 - 2023)*, 2006.

however, the promised extensive change in structuring and staffing of nature protection could not be observed in the course of the years. Although there have been some concrete plans for improvement and cohesion with the EU, they could not be turned into real developments. Therefore, at most attempts of some tertiary changes can be mentioned in the organizational structure of the nature protection sector. Thus, it is not possible to argue any secondary or institutional change in organizational structure and staffing of nature protection.

Horizontal Sector

Although no new institutional structuring was required for EIA practices, according to 2001 NPAA, the existing structure should be modified to redefine the job descriptions and fulfill additional responsibilities within the framework of the existing institutional structure.⁸⁰⁶ The 2001 NPAA argued that the government, municipalities and the private sector should reinforce their environmental activities, and mobilize and use more effectively their new financial resources in Turkey. It is required, according to 2001 NPAA, to eliminate shortcomings in the central and provincial offices in terms of technical and personnel aspects for ensuring more efficient implementation of the regulation on EIA.

2001 NPAA claimed that there was a need to have the personnel trained both at the national and international level on EIA practices of the other member states (on EIA practices; sectoral guidelines, screening procedures, assessment and monitoring), and to make investigations in the countries on their best practices.⁸⁰⁷ For all those intentions and plans in the 2001 NPAA it is required to install the necessary computer systems (network, etc) for effective EIA Practices.

It is noted in the IEAS (2007) that the application of The Environmental Impact Assessment is mostly realized.⁸⁰⁸ But at the participation period, complete implementation containing 2003 changes on the directive is envisioned. According to the IEAS it is necessary to strengthen the existing institutional structure and to develop the capacity of all target groups. The MoEF, says the IEAS, needs 500 personnel to apply the EIA Directive in the central and local areas. It is necessitated by the IEAS that the Strategic Environmental Assessment Directive (SEA) to

⁸⁰⁶ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁸⁰⁷ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁸⁰⁸ Ministry of Environment and Forestry, *EU Integrated Environmental Approximation Strategy (2007 - 2023)*, 2006.

cover and complete at the end of 2007 and strengthening of the existing institutional structure and to develop the capacity of all target groups. The MoEF, according to the IEAS, needs 1000 personnel to implement the SEA Directive in the central and local areas.

The IEAS announces that the Environmental Information System and National Environmental Information Exchange Network is started to be created for fastening information exchange among institutions and providing environmental information, to prepare sustainable development plans and to support an environment protection plan in Turkey. To cover the new data and information need caused by the changes at the national and EU legislation and the information system, the IEAS points out that regular consultancy and personnel support is needed.

In horizontal sector, the organizational structure is partly in line with that of the EU's. Especially, for the practices of EIA, except for some shortcomings of staff in local and central areas, the institutional structure appeared to be changed. Moreover, two new institutions have been built for collecting environmental information and disseminating that information among institutions. However, there is a need for institutional structuring and personnel in accurately implementation of SEA directive. In terms of institutional change in organizational structure of horizontal sector, it can be argued that the changes made are in their way to be a primary change but the remaining shortcomings, especially in implementation of SEA, keep those changes to be counted as institutional change.

Chemicals and Genetically Modified Organisms

The NPAA of 2001 indicated that no change is required in the existing institutional structure in the harmonization process; however, there was a requirement to employ 10 experts for an effective enforcement of the legislation on the management of chemicals.⁸⁰⁹

According to the 2003 NPAA, additional staff and training was required for effective enforcement of chemicals legislation. Technical assistance and training was necessary for further implementation measures, risk assessment and establishing a chemicals inventory. Draft regulations were prepared on good laboratory practice.⁸¹⁰ There are no laboratories yet

⁸⁰⁹ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁸¹⁰ Turkish National Program for the Adoption of Acquis (NPAA), 2003

which comply with the EU requirements. One of the priorities for 2002 is to establish such a laboratory.

In the chemicals and GMOs sector, the IEAS (2007) stated that important studies are needed to be conducted for a more consistent institutional framework to be established and for the arrangement of the applications starting from the development of policies pertaining to the chemicals to monitoring and sanctioning.⁸¹¹ According to the IEAS, for the legislation in this sector to be implemented there is need for administrative arrangements and trained labor.

The IEAS declared that the insufficient sources for monitoring and controlling by the institutional framework and the competent authorities, the lack of experience in the personnel, insufficient equipment, and lack of access to some systems and mechanisms as well as reliable data/information will be taken care of. Furthermore, the IEAS reminded that in ILU sub-sector there is need for laboratories that are accredited in accordance with Good Laboratory Principles.

The requirement for change and reformation in organizational structure of chemicals and GMOs sector had been ignored in 1990s; however by the beginning of the 2000s Turkey admitted the need of change and development in organizational structure especially for effective implementation of related legislation. Nevertheless, by the year of 2008, there have been almost no advancements in the organizational structure and recruitment in Chemicals and GMOs sector, despite the announcement of strong need for more consistent institutional framework and trained staff. Thus, it can be argued that, in terms of Europeanization and institutional change, even though the conditions were available (i.e. misfit and adaptational pressure), no change had happened in organizational structure of the chemicals and GMOs sector.

Nuclear Safety

As stated by the Law on Turkish Atomic Energy Agency (No: 2690), The Turkish Atomic Energy Agency is carrying on the research, development and training activities while performing it's duty on licensing and auditing devoted to the use of nuclear energy. The

⁸¹¹ Ministry of Environment and Forestry, *EU Integrated Environmental Approximation Strategy (2007 - 2023)*, 2006.

NPAA of 2001 reminded that in the Nuclear Safety Convention of International Atomic Energy Agency, depending on the establishment of nuclear power plants and increasing use of nuclear technology, it would be possible to reach a legal arrangement to achieve a new institutional structure that will separate the licensing and auditing activities from the research and development activities via revising the Law on Turkish Atomic Energy Agency.⁸¹² The 2001 NPAA pointed out that preparation of new legislation necessary for the harmonization of the EU acquis was under study.

According to the 2003 NPAA, any necessary additional staff had to be trained on nuclear and radiation safety according to the UAEA stated qualification by in-service training and by the use of the support supplied by International Atomic Energy Agency.⁸¹³ However, by the year of 2008 no serious development has occurred in the field of the organizational structure in Nuclear Safety sector. Thus, it can be claimed that no institutional change of any degree have happened.

3.3.2.3. Changes in Legislation

Legislation forms the backbone of any institution; it defines rules of the game, the roles of the actors and creates the general notion of the concerned institution. Thus, in our case, change in legislation about environment has direct impact on institutional change of environmental policy in Turkey. It is aimed to observe the change in general legislative structure as it creates new norms, policies and formal organizations; and reshapes the existing ones. The sectors of; air quality, water quality, waste management, noise, nature protection, horizontal sector, chemicals, genetically modified organisms, nuclear safety and protection from radiation and industrial pollution and risk management are evaluated. Evaluation is based on official documents such as National Program of Turkey for Adoption of the Acquis, National Environmental Action of Turkey and EU Integrated Environmental Approximation Strategy.

Horizontal Sector

In the short term the 2001 NPAA committed to conclude revision studies of the Regulation on EIA, to ensure international training on EIA practices (EIA Practices, EIA evaluation and

⁸¹² Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁸¹³ Turkish National Program for the Adoption of Acquis (NPAA), 2003

monitoring), and to prepare sectoral evaluation and follow-up guidelines detailing the examination-evaluation process followed for sectoral eliminating-scanning guidelines and the EIA Report or Pre-EIA Report for the aim of understanding whether or not the activity in concern is under the scope of the Regulation on EIA.⁸¹⁴ In the medium term the 2001 NPAA promised to prepare and enforce sectoral EIA Guidelines, to eliminate national infrastructural gaps to become a party to the Transboundary EIA Convention and to conduct training activities on sectoral guidelines, eliminating-scanning activities, strategic EIA and standard EIA practices.

In 2003 NPAA, environmental impact assessment is assigned as priority considering that environmental impact assessment Directive Implementation and enforcement is short term priority in 2003 Accession Partnership Document. The project entitled Adoption and Implementation of the Strategic Environmental Assessment (SEA) Directive (2001/42/EC) in Turkey, supported by bilateral cooperation with the Government of the Netherlands, MATRA Programme, was initiated in 2002 and would be completed at the end of the year 2004.⁸¹⁵ It also included a pilot project to test the implementation of the Draft SEA Regulation on the tourism sector.

The EU Directives analyzed in this sector are:

- Environmental Impact Assessment Directive: 85/337/EEC as amended by 97/11/EC
- Strategic Environmental Assessment Directive: 2001/42/EC

Directive 85/337/EEC, as amended, on EIA

According to the MEDA project the level of compliance is quite high. The draft Regulation transposed many of the requirements of the Directive. The MEDA project noted that a temporary article excluded a number of types of projects from the EIA procedure until 2003.⁸¹⁶ The other significant gaps according to the MEDA Project were:

⁸¹⁴ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁸¹⁵ Turkish National Program for the Adoption of Acquis (NPAA), 2003

⁸¹⁶ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

- Transboundary effects are not considered by the draft Regulation. A further regulation will be required to transpose these requirements;
- The Commission established to consider EIA applications can only accept or reject the application – they cannot set conditions;
- The developer or investor of the project is a member of the Commission – a man should not be a judge in his own case;
- Concerned environmental authorities may sit on the Commission – such authorities must be given an opportunity to comment on the application;
- Although a public consultation process is put in place, the information specified in Articles 6.2 and 9.1 is not made available to the public.⁸¹⁷

It is noted by the MEDA project that Turkey was not a party to the Transboundary EIA Convention. The draft EIA Regulation should be amended to take account of the above comments.⁸¹⁸

Directive 2001/42/EC on SEA

The MEDA project stated that there was no Turkish legislation transposing the requirements of this Directive. Article 2 of the draft Law amending the Environment Law defines SEA. 819 It is stated in IEAS that the Law on The Right To Access to Information has come into force in Turkey on 09.10.2003 and the 19.04.2004 dated and 2004/7189 numbered By-law is published. This law determined frameworks on providing information to the public and covers the general rate of the requirements of EU Directive on Public Access to Environmental Information. In the framework of The Law on The Right of Access to Information, at the 2872 numbered Environment Law's changed 5491 numbered 2nd Article, the definition of environmental information is given and due to the changed 2872 numbered Environment Law by 5491 numbered Law's 21st Article, The Regulation on Providing Environmental Information and The Right To Have Information must be applied to strengthen the harmony of the EU Directive, to make the public conscious on reaching information and to provide public information on environment.

The IEAS announced that the established Environmental Information System is tested on a pilot area and according to the IEAS, it is necessary to work on the system to eliminate the shortcomings arisen from these tests, to increase the capacity, and in order to increase the use

⁸¹⁷ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

⁸¹⁸ For the Schedule of 2003 NPAA see ANNEX No:1

⁸¹⁹ For the Schedule of 2003 NPAA see ANNEX No:1

of the system to disseminate the system all over the country and to develop the system further.⁸²⁰ As a procedure, The By-law on EIA is in compliance with the EU Directive but there are some difficulties about transboundary issues. The draft Regulation of Strategic Environmental Assessment is prepared on 08.04.2005. According to IEAS, the draft regulation is highly in compliance with the EU Directive.⁸²¹ About the Environmental Liability Directive, the 2008 NPAA asserted that Turkey has reached a high amount of harmony. The harmonization studies are still going on.⁸²²

As it can be seen, legislation in the horizontal sector has come in line with the EU legislation in the course of years until 2008. Although, it was stated that the harmonization studies were still progressing, the critical steps for compliance with EU have been taken in horizontal sector. Thus, it can be argued that, an institutional change occurred in legislation of the horizontal sector, since there has been a progress from complete non-compliance to almost full compliance. Furthermore, creating a new legislative area from nothing can be considered as a normative shift in horizontal sector.

Air Quality

According to the 2001 NPAA the necessary amendments and modifications in the corresponding Turkish legislation had to be made in the provisions and standards of the Regulation on the Protection of Air Quality and Regulation on Unhygienic Settlements and Law on the Establishment of Refik Saydam Centre for Public Work also need to be revised.⁸²³

The MEDA project pointed out that overall, the level of compliance as a matter of law is low-medium. Not all pollutants required to be monitored by the Air Framework Directive and daughter directives were required to be monitored in Turkey, and there was not a legal requirement to monitor ambient air quality as such.⁸²⁴

⁸²⁰ EU Integrated Environmental Approximation Strategy (2007 - 2023) Ministry of Environment and Forestry
[http: www.did-cevreorman.gov.tr](http://www.did-cevreorman.gov.tr)

⁸²¹ Ibid.

⁸²² Turkish National Program for the Adoption of Acquis (NPAA), 2008

⁸²³ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁸²⁴ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

As far as the Turkish legislation is concerned, the MEDA project asserted that, this sector suffered for imprecision with respect to the requirements of the EU directives. The main reason for this, according to the MEDA project, was that definitions provided in the directives were missing or are only partially transposed, and then in an imperfect manner. As most of these directives rely on specific limit values being met, the MEDA project noted, the failure to have defined limit values as required by the directives means that there is a systematic problem in monitoring.⁸²⁵ Requirements concerning the location and numbers of sampling points were not transposed. The MEDA project suggested that these defects could be corrected by drafting an Air Framework Law, and related subordinate regulations.

The 2003 NPAA admitted the need for eliminating differences between Turkish and EU air quality legislation. The Ministry of Health contributed to harmonization efforts carried out by the Ministry of Environment and Forestry. The 2003 NPAA declared that the project entitled “strengthening of the implementation of Council Decision 97/101/EC on ambient air quality assessment, management and reciprocal information exchange (as part of Air Quality Directive 96/62/EC) at the Refik Saydam Hygiene Centre, Ministry of Health, Turkey”, supported by bilateral cooperation with the Government of the Netherlands MATRA Programme, was initiated in 2003.⁸²⁶ In addition, the 2003 NPAA announced that in the scope of the Support to Turkey in the Field of Air Quality, Chemicals and Waste Management Project, which was submitted to 2003 Financial Cooperation Programme, strengthening of administrative capacity for harmonizing and implementing Air Quality Directive 96/62/EC would be studied.

The Directives analyzed in the air quality sector were:

- Air Quality Framework Directive: 96/62/EC
- Ozone in Ambient Air Directive 2002/3/EC (repealing Directive 92/72/EEC)
- Limit Values of Benzene and Carbon Monoxide in Ambient Air Directive: 2000/69/EC
- Availability of Consumer Information on Fuel Economy and Carbon Dioxide Emissions in Marketing of New Passenger Cars Directive: 1999/94/EC

⁸²⁵ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

⁸²⁶ Turkish National Program for the Adoption of Acquis (NPAA), 2003

Directive 96/62/EC on Ambient Air Quality

The Regulation on Protection of Air Quality (RPAQ) is the main piece of relevant Turkish legislation. Directive definitions were either not transposed or only partially transposed. Not all the Directive's list of pollutants was required to be monitored, and air pollution was only required to be measured at certain industrial installations. However, there was an obligation to draw up action plans as required by Article 7.3 of the Directive.

The MEDA project suggested that the main provisions of the Directive be transposed via a new Air Framework Law. Subordinate legislation had to be drafted to transpose the technical requirements of the Directive and the daughter directives.⁸²⁷

Directive 92/72/EEC on Ozone

The RPAQ did not transpose the requirements of this Directive. Limit values for ozone were higher than those set down in the Directive. There was not a harmonized procedure for monitoring ozone levels in air, for exchanging information, for informing and warning the public about air pollution caused by ozone.

The government had to follow closely the developments and adoption of the proposed new directive on ozone. It is advised by the MEDA project to await the adoption of new directive before finalizing transposition efforts.⁸²⁸ It is suggested by the MEDA project that a new regulation, under the suggested Air Framework Law, be drafted which transposes the requirements of the new directive.

Directive 2000/69/EC on Benzene and Carbon Monoxide

The RPAQ only establishes limit values to be met at specified installations and refineries. There was no zoning classification for threshold values. There was no requirement to inform the public on these two pollutants. The MEDA project recommended that although the RPAQ

⁸²⁷ For the Schedule of 2003 NPAA see ANNEX No:1

⁸²⁸ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

could be amended to complete transposition of this Directive, as noted above, it may be more appropriate to draft a new regulation under the suggested Air Framework Law.⁸²⁹

Directive 1999/94/EC on Availability of Consumer Information on New Passenger Cars

The MEDA project noted that although there were a number of non-legally binding Turkish Standards on emissions, the requirements of the Directive had not been transposed.⁸³⁰ According to the MEDA project, the Ministry of Environment had to consult with the Ministry of Industry and Trade and with the industry to determine the most appropriate manner to achieve complete transposition.

The IEAS remarked that the main subjects where the responsibilities lie with respect to air pollution are the Air Quality Framework Directive and its daughter directives, Fuel Quality Directive, and Climate Change and Informing the Consumer Directive.⁸³¹ With the purpose of harmonizing the legislation of EC on air quality to a framework legislation a Project named ‘‘Support to Turkey in the field of Air Quality, Chemicals and Waste Management’’ was started in year 2004, and with the first component of this Project, Air Quality, it is aimed to reflect the contents of EC Framework Air Quality Directive on our National Air Quality Act and to the activities for measuring the air quality along with the reflection of the provisions of The Directive of Large Combustion Plants Directive on our domestic legislation.⁸³² New draft regulations were prepared for limiting emissions arising from The Large Combustion Plants and to ensure air quality and these were submitted for the approval of the related institutions.⁸³³

The IEAS asserted that the Draft By-law on Air Quality Assessment and Management were prepared such that it covers four daughter directives (99/30/EC, 2000/69/EC, 2002/3/EC and 2004/107/EC) other than 96/62/EC numbered Air Quality Framework Directive.⁸³⁴ The new

⁸²⁹ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

⁸³⁰ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

⁸³¹ EU Integrated Environmental Approximation Strategy (2007 - 2023), Ministry of Environment and Forestry, <http://www.did-cevreorman.gov.tr>

⁸³² Ibid.

⁸³³ Turkish National Program for the Adoption of Acquis (NPAA), 2008

⁸³⁴ EU Integrated Environmental Approximation Strategy (2007 - 2023), Ministry of Environment and Forestry, <http://www.did-cevreorman.gov.tr>

draft by-law sets the implementation calendar for implementation and harmonization for 13 pollutants that are defined under the framework directive and the daughter directives. By-law also aims to strengthen the monitoring, sanctioning and institutionalization in the area of controlling the pollution and air quality.

The Ministry of Environment and Forestry is determined as the responsible institution for the 98/70/EC numbered EU Directive under the heading of Turkish National Program Adoption of the Acquis. On this purpose, stated the IEAS, in the scope of harmonizing the Directive about the quality of fuel and diesel used at motor vehicles due to the 2/95 numbered Customs Union Agreement signed with EU, the 98/70/EC numbered EU Directive which came into force in 2000 in Europe, is prepared by The Ministry of Environment and Forestry by receiving approvals of related institutions and organizations, especially by taking the approval of TÜPRAŞ and it is transferred in Turkish laws as By-law on The Quality of Petrol and Diesel Fuels by being published on 11.06.2004 dated and 25489 numbered Official Gazette.⁸³⁵

Also, the IEAS informed, the duty to audit petroleum market is given to The Institution of Energy Market Regulatory Authority with the 04.12.2003 dated and 5015 numbered Petroleum Market Law.⁸³⁶ In this purpose The Institution of Energy Market Regulatory Authority has prepared the following By-laws: Published on 30.12.2005 dated and 26039 numbered Official Gazette: Communiqué on The Production of Diesel Types, Obtaining Them In Or Out of The Country and Presenting Them to The Market which was approved by the 08.12.2005 dated and 590/177 numbered Committee Decision of TS 3082 EN 590 Automotive Fuels-Diesel- Necessities and Testing Methods Standards.” “TS 228 EN 590 Automotive Fuels-unleaded gasoline- Necessities and Testing Methods Standards published on 05.01.2006 dated and 26044 numbered Official Newspaper as technical arrangement with Arrangement Notice on The Production of Gasoline Types, Obtaining Them In Or Out of The Country and Presenting Them to The Market approved by 29.12.2005 dated and 623/2 numbered Committee Decision.⁸³⁷

⁸³⁵ Ibid.

⁸³⁶ Ibid.

⁸³⁷ Ibid.

The IEAS announced that the adaptation with respect to the Directive on the Sulphur Content in the fuel oil used in the Industry and Residents that takes place under the Air Sector Title (99/32/EC) will be commenced by considering TÜPRAŞ investments.⁸³⁸ The harmonization work on the Directive for Volatile Organic Compounds Emissions arising from Petrol Storage and its distribution from Terminals to Service Stations (94/63/EC) has not been started yet and furthermore the Directive on National Emission Ceiling Limits has not been reflected on Turkish legislation yet. The work pertaining to carbon dioxide is still in progress.⁸³⁹

The commitments in 1990s and the gaps between Turkish legislation and EU directives have been achieved in the course of 2000s. Almost all areas and directives mentioned in MEDA project were covered and legislation on air quality became in line with the related EU directives. Thus, legal instruments for air quality issues were prepared by Turkey. Consequently, it can easily be argued that a comprehensive advancement has been realized in the legislation of air quality, so that almost a new legislative area was created; as a result a primary change appeared in the field of air quality legislation.

Waste Management

According to the 2001 NPAA necessary amendments would be made in the Regulation on the Control of Solid Wastes (14 March 1991), Regulation on the Control of Medical Wastes (20 May 1993) and the Regulation on the Control of Hazardous Wastes (27 August 1995) for harmonization with the EU acquis.⁸⁴⁰

The regulations, which were in the form of a draft but projected to be finalized, were the Regulation on the Control of Waste Oils, Regulation on the Control of the Collection, Transport and Disposal of Waste Batteries and Accumulators, Regulation on the Control of the Disposal of Power Plant Wastes and Ashes, Regulation on the Control of Package Wastes, Regulation on the Control of Waste Tires, Regulation on the Control of Treatment Sludge, and Regulation on the Use of Wastes in Cement Mills as an Alternative Fuel.

⁸³⁸ Turkish National Program for the Adoption of Acquis (NPAA), 2008

⁸³⁹ Ibid.

⁸⁴⁰ Turkish National Program for the Adoption of Acquis (NPAA), 2001

The 2001 NPAA also announced that specialized customs offices would be set up and the related personnel would be trained on the control of the entry and exit of wastes at the Customs by making amendments in the Regulation on the Control of Hazardous Wastes.⁸⁴¹ Thus, it would be possible to ensure swift and direct exchange of information between the related institutions and authorities. Also, environmental auditory units would be established to make inspections in internal transport.

The MEDA Project acknowledged that transposition of the EU waste requirements was underway and a number of draft regulations and proposals for amendments had being prepared.⁸⁴² Existing legislation already largely corresponds in part to the directives' requirements. For example the 1995 Regulation on Hazardous Waste Control largely corresponds to the definitions and requirements of the Waste Framework Directive. The MEDA Project recommended Turkey to raise the level of waste management from a regulation to that of a law. The scope of such a law had to be widened to include waste management generally, and to improve the legal requirements for record-keeping, monitoring and enforcement.

The 2003 NPAA indicated that although existing Turkish legislation was to a large extent harmonized with relevant EU legislation, studies had been initiated to prepare draft regulations and proposals for amendments in order to fully complete alignment with the EU directives listed below.⁸⁴³ The 2003 NPAA reminded that Turkey's major problems related to waste management were the elimination of hazardous waste from industry, and the combination of industrial and domestic waste, domestic waste, specific waste, and construction waste all together, without separate collection. However, in the framework of regulations prepared by the Ministry of Environment and Forestry, the 2003 NPAA argued that the metropolises in particular had initiated integrated solid waste management studies, and collection and elimination of waste following categorization was realized to a certain extent. In Turkey, there are plants for the elimination of hazardous and domestic waste, albeit few in number.

The 2003 NPAA announced that a project proposal (TR-302.03) had been submitted to the

⁸⁴¹ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁸⁴² Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

⁸⁴³ Turkish National Program for the Adoption of Acquis (NPAA), 2003

2003 Pre-accession Financial Assistance Programme to create the necessary capacity in the Ministry of Environment and Forestry for the implementation of legislation and harmonization of Turkish legislation with European Parliament and Council Directive 94/62/EC on packaging and packaging waste, Council Directive 75/442/EEC on waste, Council Directive of 12 December 1991 on hazardous waste, Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste, Council Directive 1999/31/EC on the landfill of waste, and Council Regulation 259/93/EEC on the supervision and control of shipments of waste within, into and out of the European Community.⁸⁴⁴

The IEAS announced that the following By-laws that laid down in the National Program for Adoption of Acquis of 2003 and undertaken to be completed in 2004 have become effective as they were published; Control of Packaging and Packaging Waste, Control of Waste Oils, and Control of Used Batteries and Accumulators. And furthermore, although it was not included in the National Program for Adoption of Acquis of 2003, By-law on the Control of Construction and Demolition Waste which was formed to make the implementation of the Directive on Landfill has become effective in 2004 after it was published.⁸⁴⁵

It is noted in the IEAS that By-law on the Control of the Hazardous Waste that laid down in the National Program for Adoption of Acquis of 2003 and undertaken to be completed in 2005 and By-laws on the Control of the Medical Waste, By-laws on the Control of Waste Vegetable Oil which were not included in the National Program for Adoption of Acquis of 2003 and made the implementation of the Directive on Landfill possible, have become effective in 2005 after they were published.⁸⁴⁶ By-law studies for harmonization of the directives related with ‘Waste Framework’, ‘Waste Catalog’, ‘Landfill Directive’, ‘Waste Shipment’, ‘Waste Combustion’, ‘PCB/PCT’, and ‘End of Life Vehicles’ ,which laid down in the National Program for Adoption of Acquis of 2008 are going on.⁸⁴⁷

The legislative gap between Turkey and the EU in the field of waste management has almost been covered. The key directives were transposed into domestic legislation; nevertheless,

⁸⁴⁴ For the Schedule of 2003 NPAA see ANNEX No:1

⁸⁴⁵ EU Integrated Environmental Approximation Strategy (2007 - 2023), Ministry of Environment and Forestry, [http: www.did-cevreorman.gov.tr](http://www.did-cevreorman.gov.tr)

⁸⁴⁶ Ibid.

⁸⁴⁷ Turkish National Program for the Adoption of Acquis (NPAA), 2008

there are some directives to be transposed after 2008, which indicates despite some shortcomings, a major progress has been achieved in the legislative area of waste management. Thus, it can be argued that a sizeable change happened in the legislation of waste management that is even can be considered as an institutional change.

Water Quality

Necessary Amendments and Modifications in the Corresponding Turkish Legislation according to the 2001 NPAA were firstly in the legislation concerning the Regulation on the Control of Water Pollution and the related communiqués; secondly related Turkish standards (TS 266, TS 3417, TS 2553, TS 1424, TS 5089, TS 5090, TS 5206, TS 5106, TS 6291); and in the Regulation on Fishery Products (Law No 1380 on Fishery Products) and the circulars.⁸⁴⁸

The 2001 NPAA committed to conclude preliminary works for legislative requirements and legislative works in short term and harmonization of legislation, design of programs for improvement and remediation of water quality, design of local programs for the prevention of water pollution, building and construction of wastewater treatment facilities and sewerage systems, laying down of the related time schedule, modernization of the monitoring systems for ground and surface waters and Construction of sewerage systems and treatment facilities (including in industries) in medium term.

Improvement of water quality had been assigned as a priority in 2003 NPAA, since, starting transposition and implementation of the *acquis* related to water quality was a short-term priority, and completing the transposition of the *acquis* and strengthening the institutional, administrative, and monitoring capacity, including data collection, to ensure environmental protection was a medium-term priority of the 2003 Accession Partnership document.⁸⁴⁹

The transposition of EU water quality legislation into Turkish legislation was at a very early stage. Much of the laws on water are quite dated, e.g. the Law on Water dates back to 1926 and the Groundwater Law to 1960. The policies and principles of EU water management, especially those in the Water Framework Directive, are not to be found in Turkish legislation. No new or draft legislation had been drafted to specifically approximate the Turkish legislation with EU legislation.

⁸⁴⁸ Turkish National Program for the Adoption of *Acquis* (NPAA), 2001

⁸⁴⁹ Turkish National Program for the Adoption of *Acquis* (NPAA), 2003

The problem was increased because water management in Turkey had been divided between a large number of ministries and institutions, who were somewhat lacking in co-operation and co-ordination. Although some aspects of EU legislation were already contained in Turkish legislation (e.g. standards for UWWT – Urban Waste Water Treatment), the provisions were not detailed enough and the standards did not generally comply with EU legislation.

The MEDA project⁸⁵⁰ signified that the implementation of the Water Framework Directive would require a revision of the Law on Environment with an extended section devoted entirely to water. A number of the existing EU water directives would be repealed in time as the requirements of the directives will be covered by the Water Framework Directive once it was fully implemented. In addition daughter directives would be adopted to implement the Water Framework Directive. It would therefore be more appropriate to implement each water directive (with the exception of the Water Framework Directive) through a separate regulation rather than trying to implement all directives by revising the Water Pollution Control Regulations and the Regulation on Aquatic Products.

The Directives analyzed in this part are:

- Water Framework Directive: 2000/60/EC
- Urban Waste Water Treatment Directive: 91/271/EEC, as amended by 98/15/EC
- Nitrates Directive: 91/676/EEC
- Discharge of Dangerous Substances to Water Directive: 76/464/EEC and Daughter Directives
- Drinking Water Quality Directive: 98/83/EC

Directive 2000/60/EC on Water Framework Policy

⁸⁵⁰ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (MEDA/TUR/ENLARG/D4-01)

Turkish laws, including the Environment Law, the Law Amending the Environment Law, the Water Law and the Groundwater Law did not transpose the requirements of the Water Framework Directive.⁸⁵¹

Transposition of the Water Framework Directive would require significant revision to the Environment Law with an extended section devoted entirely to water. It may be preferable to draft a new comprehensive Water Law.⁸⁵²

Directive 91/271/EEC on Urban Waste Water Treatment, as amended

Many of the issues regulated by the UWWT Directive were not covered in the existing Turkish legislation, which includes the Regulation on Water Pollution Control, Regulation on Discharge of Wastewater to Sewage System, Law on Greater City Municipalities and the Law on General Hygiene.

The main issues that require addressing include:

- The definitions need updating;
- Requirements for the establishment of collection systems and for appropriate sewage treatment plants including a timetable needs to be included in the legislation;
- Requirements for the identification of sensitive areas need to be defined;
- The standards and the sampling and compliance assessment for the effluents from sewage treatment plants must be adapted to the directive in particular also those for sensitive waters which are missing in the Turkish legislation;
- The analytical methods for the analysis of sewage must be adapted to achieve the same performance as that required in the directive;
- Legislation must contain a requirement that the effluent discharged must meet the quality objectives of the receiving waters (Note that the standards laid down in the directive are only minimum standards);
- Requirements for the discharge of industrial waste water to collecting systems or treatment plants need to be covered in the legislation;
- Legislation needs to include the requirement for the regulation/permitting of sewage sludge disposal;
- Legislation must forbid the discharge of sewage sludge to surface waters;
- Requirements for waste water treatment for the industrial sectors listed in the directive needs to be included in the legislation;
- Legislation must require the establishment of an implementation program;
- Legislation must contain a requirement to establish an information system and the requirement to publish situation reports.⁸⁵³

⁸⁵¹ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (MEDA/TUR/ENLARG/D4-01)

⁸⁵² For the Schedule of 2003 NPAA see ANNEX No:1

It was strongly recommended by the MEDA project that the UWWT Directive be transposed via the drafting of a new regulation, rather than making the substantial amendments to the Water Pollution Control Regulation and the many other pieces of Turkish legislation. This would have the advantage that all UWWT requirements are contained in one piece of legislation.

The Turkish legislation corresponding to Council Directive 91/271/EEC was the Implementing Regulation on Water Pollution Control. The 2003 NPAA stated that, in practice, the construction of waste treatment plants for the benefit of municipalities was the responsibility of the Bank of Provinces and metropolitan municipalities, and in rural areas this responsibility belongs to the General Directorate of Rural Services.⁸⁵⁴ Discharge parameters for urban wastewater were not fully compatible with EU legislation and alignment of legislation as well as additional investment to existing waste treatment plants was necessary. A transition period is necessary for full implementation, since this directive is one of the heavy cost investment directives.⁸⁵⁵

Directive 91/676/EEC on Nitrate Pollution

There was no corresponding Turkish legislation for Directive 91/676/EEC. Therefore, draft legislation was prepared. It was suggested by the MEDA project that the Directive be transposed by way of a new regulation. This had to be prepared in co-operation with the Ministry of Agriculture and Rural Affairs, especially as regards the production of the Code of Good Agriculture Practice.⁸⁵⁶

The 2003 NPAA signified that in order to protect fisheries and aquacultural products from pollution originating from agricultural nitrate sources, environment friendly agricultural methods had to be introduced. A transition period is required for full implementation.⁸⁵⁷

⁸⁵³ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

⁸⁵⁴ Turkish National Program for the Adoption of Acquis (NPAA), 2003

⁸⁵⁵ For the Schedule of 2003 NPAA see ANNEX No:1

⁸⁵⁶ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

⁸⁵⁷ For the Schedule of 2003 NPAA see ANNEX No:1

Directive 76/464/EEC on Discharge of Dangerous Substances to Water, as amended and its Daughter Directives

Some provisions including some of the definitions were included in existing Turkish legislation (Regulation on Water Pollution Control, Regulation on Aquatic Products and the Communiqué on Hazardous and Dangerous Substances in Water Bodies), including the need for authorization of discharge of waste waters containing dangerous substances. However, the MEDA project pointed out that it was unlikely that the Communiqué on Hazardous and Dangerous Substances in Water Bodies has sufficient legal force to be acceptable by the Commission. In addition important provisions were missing including:

- Limit values and quality standards for List 1 need to be harmonized with the EU Directives;
- Quality standards for List 2 need to be revised according to Annex V of the Water Framework Directive;
- The requirement to eliminate the pollution of List 1 and to reduce pollution of List 2 substances;
- The requirement for the preparation of pollution reduction programs for List 2 substances including monitoring programs;
- The requirement to prepare pollution inventories for List 1 substances;
- The standards laid down for the List 1 substances in the Daughter Directives;
- The requirements for monitoring and reporting.⁸⁵⁸

The Regulation on Water Pollution Control could be amended to transpose all of the requirements of the Directive and the daughter directives. However, it may be simpler to draft a new regulation containing all of the directives' requirements.⁸⁵⁹

Directive 98/83/EC on Drinking Water

The MEDA Project pointed out that many of the requirements of the Drinking Water Directive were not or were only partially transposed by existing legislation. Certain standards were laid down in Turkish Standards which were not legally binding. The main issues not transposed include:

- The objectives need to be clarified and the definitions need to be extended;
- The application of the Directive should be clarified;

⁸⁵⁸ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (MEDA/TUR/ENLARG/D4-01)

⁸⁵⁹ For the Schedule of 2003 NPAA see ANNEX No:1

- The standards and parametric values laid down in the Directive need to be adopted in the Turkish legislation. They must be legally binding and it is likely that setting them as Turkish Standards (TS 266) will not be acceptable to the Commission;
- The methods laid down in the Directive for the analysis must be adopted in the legislation and where no method is specified the method applied must at least meet the performance as laid down in the Directive, which needs to be specified in the legislation;
- The legislation must require the identification of supply zones and the appropriate sampling points;
- The legislation must lay down requirements which have to be taken when the drinking water does not comply with the requirements of the Directive, including the need to inform the public and the dealing with derogations;
- Methods how to approve materials and substances in contact with drinking water need to be established in legislation;
- Data and reporting requirements need to be laid down in legislation.⁸⁶⁰

At present, many different pieces of Turkish legislation were used to regulate the supply and quality of drinking water. The MEDA report strongly suggested that a new regulation had to be prepared, possibly under the Hygiene Law which would transpose all the requirements of the Directive.

The 2003 NPAA indicated that the Implementing Regulation on Water Pollution Control and the Implementing Regulation on Production, Packaging, Sale and Inspection of Water for Human Consumption, published in the Official Gazette No. 24759 dated 25 July 2001, were Turkish legislation corresponding to EU directives related to drinking water. Directives on quality of water for human consumption fall under the responsibility of various different organizations and institutions. Turkish legislation corresponding to EU Directives was partially aligned.⁸⁶¹

With respect to the water sector, the IEAS notified that the EU legislation that was prioritized in the National Program for the Adoption of the EU Acquis of 2003 under the heading 22.1 'Improvement of the Water Quality' including 'Council Directive 75/440/EEC of 16 June 1975 concerning the quality required of surface water intended for the abstraction of drinking water in the Member States', 'Council Directive 79/869/EEC of 9 October 1979 concerning the methods of measurement and frequencies of sampling and analysis of surface water intended for the abstraction of drinking water in the Member States', 'Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment', 'Council Directive 76/464/EEC of 4 May 1976 on pollution caused by certain dangerous substances discharged

⁸⁶⁰ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

⁸⁶¹ For the Schedule of 2003 NPAA see ANNEX No:1

into the aquatic environment of the Community’, ‘Council Directive 76/160/EEC of 8 December 1975 concerning the quality of bathing water’, ‘Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources’, ‘Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption’ are studied within the framework of the harmonization of the Turkish Legislation with that of EU.⁸⁶² Accordingly, the By-law on the waters from which drinking water is obtained or planned to be obtained, the By-law on Urban Wastewater Treatment, the By-law on Control of Pollution by Dangerous Substances in Water and its Environment, the By-law on Protection of Waters Against Nitrate Pollution from Agricultural Sources, the By-law on Water Intended to Human Consumption, the By-law on Bathing Water Quality are prepared and entered into force in the Official Gazette.⁸⁶³

The IEAS pointed out that the studies, transposed to the 17 December 1979 dated and 80/68/EEC numbered Council Directive on the protection of groundwater against the pollution that is caused by some dangerous substances” in the form of the By-law on “the protection of the groundwater against pollution by the dangerous substances” is in progress and the subject matter By-law on has been submitted for the approval of the institution.⁸⁶⁴ The IEAS reminded that the By-law on transposition work with regard to the council directive on the quality of fresh waters needing protection or improvement in order to support fish life as well as the council directive on the quality required of selfish waters is in progress.⁸⁶⁵ It is noted in the IEAS that the transposition of the Council Directive 78/659/EEC of 18 July 1978 on the quality of fresh water needing protection or improvement in order to support fish life and Council Directive 79/923/EEC of 30 October 1979 on the quality required of shellfish waters is underway.⁸⁶⁶

The IEAS clearly stated that Although there is work being conducted to establish a Law on Water that takes into accounts the requirements of Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, the full transposition and implementation of the Directive will only be possible with the membership to EU.

⁸⁶² EU Integrated Environmental Approximation Strategy (2007 - 2023), Ministry of Environment and Forestry, [http: www.did-cevreorman.gov.tr](http://www.did-cevreorman.gov.tr)

⁸⁶³ Ibid.

⁸⁶⁴ Ibid.

⁸⁶⁵ Ibid.

⁸⁶⁶ Ibid.

Even though the National Program for the Adoption of the Acquis does not touch upon marine environment, the studies to reduce the pollution in marine environment and to ensure marine safety are carried out with the support of relevant institutions within the framework of the international conventions and EU Legislation. Within this context, the work is being conducted in compliance with the “Thematic Strategy on the Protection and conservation of the Marine Environment” that has been prepared by the European Commission.

In the field of water quality there have been numerous EU directives transposed into Turkish legislation, however, deep rooted laws and by laws of Turkish legislation in this sector made it more difficult to get fully harmonized with the EU directives compared to most of the other sectors. If it is recalled, institutional change become more difficult if there is an existing and deep rooted tradition in the institutions, in other words, they depend on their existing path instead of changing the path, which seems true for Turkey in the sector of water quality. Turkey stated that in order to fully adapt to EU directives in water quality sector, it had to be waited until the Turkey’s full membership to the EU. Nevertheless, the number of transposed directives indicates a significant change, which can, at least, be considered as a secondary change.

Nature Protection

It was foreseen by the 2001 NPAA to complete the administrative and technical arrangements started for the preparation of the national legislation on habitat protection under the international conventions Turkey ratified in a way to comprise the matter stipulated in the Directive (92/43/EEC) on the conservation of natural habitats and of wild fauna and flora.⁸⁶⁷ The Framework Law on the Protection of Nature would be prepared, and the articles contradicting with the EU Directive would be omitted and aligned.

The 2001 NPAA remarked that the “Draft Regulation on the Protection of Wetlands” would be revised and harmonized within the framework of the provisions of the EU Directive (79/409/EEC) and by considering all the aspects of the legislation, mainly the Law on Land Hunting. The arrangements to ensure a more effective nature protection were to be realized

⁸⁶⁷ Turkish National Program for the Adoption of Acquis (NPAA), 2001

through the projects to be put into practice from GEF resources.⁸⁶⁸ Upon the enactment of the CITES National Implementing Regulation, communiqués would be issued for implementations in line with the provisions of the regulation. Concerning the natural habitat, protection of flora and fauna related directive, the basic Law No 2873 on Natural Parks would be harmonized with the criteria and statutes of World Nature Protection Union.

The MEDA Project signified that there were a large number of different pieces of Turkish legislation and draft legislation concerned with protection of habitats and species, including wild bird species. However, none of this legislation fully conformed to the requirements of the Habitats and Wild Birds Directives. Some of the older Turkish legislation conflicted with the general EU principles of nature protection.⁸⁶⁹

The MEDA project suggested that a new Nature Protection Law be drafted and adopted. The technical annexes to the Habitats and Wild Birds Directives could be transposed via regulations under this new law. A draft Law on Hunting was prepared, but the MEDA project pointed out that it did not transpose all the requirements of these two Directives.

In the Council Decision of 19 May 2003 on the Accession Partnership with the Republic of Turkey, the adoption and implementation of the *acquis* on nature protection was among the short-term priorities. The 2003 NPAA signified that the Implementing Regulation Regarding the Convention on International Trade in Endangered Species of Wild Fauna and Flora was published in the Official Gazette No. 24623, dated 27 December 2001 and entered into force on the same date. The Communiqué No 2003/19 on the Import of Endangered Species of Wild Fauna and Flora and Communiqué No 2003/1 on the Export of Endangered Species of Wild Fauna and Flora were published in the Official Gazette No. 25027, dated 21 February 2003.⁸⁷⁰ The 2003 NPAA continued as stating that the preparation of the above-mentioned Implementing Regulation, Directive 338/97/EC was taken into consideration. However, only partial compatibility had been achieved and studies continue in order to achieve full compatibility.

The 2003 NPAA pointed out that the following legislation was covered within the context of

⁸⁶⁸ Turkish National Program for the Adoption of *Acquis* (NPAA), 2001

⁸⁶⁹ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

⁸⁷⁰ Turkish National Program for the Adoption of *Acquis* (NPAA), 2003

the Twinning Project on Capacity Building in the Field of Environment for Turkey in the 2002 Pre-accession Financial Assistance Programme:

- Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds as amended by Directive 97/49/EEC
- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora as amended by Directive 97/62/EC
- Council Regulation (EC) No 338/97 of 9 December 1996 on the protection of species of wild fauna and flora by regulating trade therein
- Commission Regulation (EC) No 1808/2001 of 30 August 2001 laying down detailed rules concerning the implementation of Council Regulation (EC) No 338/97 on the protection of species of wild fauna and flora by regulating trade therein.⁸⁷¹

Although revisions to the Law on Environment, the Law on National Parks and the Law on Land Hunting continue in order to eliminate gaps and weaknesses in the current legislation, the 2003 NPAA announced that a new law in order to adopt the Habitat and Birds Directives, to protect biodiversity, and with regard to nature protection was also assumed to be necessary. This new law, according to 2003 NPAA, would also provide a framework for the adoption and implementation of the nature protection component of the EU environment acquis.

The Directives analyzed in the Nature Protection section are:

- Habitats Directive: 92/43/EEC, as last amended by Directive 97/62/EC
- Wild Birds Directive: 79/409/EEC, as last amended by Commission Directive 97/49/EC

Directive 92/43/EEC on Habitats, as amended

The MEDA Project asserted that there were a large number of pieces of Turkish legislation concerned with habitats and species conservation; however none of them fully transposed the Directive's requirements. Some of the older legislation, such as the Law on the Drainage of Swamps and on the Use of Land Thus Acquired, is in conflict with the general EU principles of protection. The main transposition issues included:

- The definitions of 'conservation' in the different pieces of Turkish legislation do not conform with the Directive definition
- All other definitions are not transposed
- Steps are required to be taken to avoid deterioration and/or disturbance of certain natural habitats
- There is no designation of SACs

⁸⁷¹ Turkish National Program for the Adoption of Acquis (NPAA), 2003

- The draft Law on Hunting does not include a system of strict protection for certain Annex IV(a) species
- The draft Law on Hunting transposes requirements concerning the taking/exploitation of species
- Requirements concerning indiscriminate forms of killing are partially transposed by the draft Law on Hunting and other legislation
- The draft Law on Amendments to the Environment Law and the draft Law on Hunting require the promotion of education
- All other EU obligations and Annexes are not transposed.⁸⁷²

The MEDA Project suggested that one law be drafted and adopted to transpose the requirements of the Directive (and the Wild Birds Directive). All other conflicting laws and provisions had to be repealed. The draft Law on Hunting did not fulfill the requirements of the Directive, and as its name suggests, was too limited in scope. The MEDA project advised that the Annexes to the Directive could then be transposed by way of regulations under this framework law. One single framework law would then be easier and clearer to implement.⁸⁷³

Directive 79/409/EEC on Wild Birds, as amended

Many of the comments made under the Habitats Directive (above) also apply here. The MEDA project specified that the Law on Hunting and the draft Law on Hunting were the main pieces of Turkish legislation, although other legislation was relevant. The main gaps in transposition, with regard to the draft Law on Hunting included:

- EU general requirements are only partially transposed
- EU obligation to classify SPAs is only partially transposed⁸⁷⁴
- There are some general prohibitions for wetlands – but note the recently adopted Regulation on the Conservation of Wetlands
- Hunting obligations are only partially transposed
- Annex V is not transposed
- All other EU obligations and Annexes are either not transposed or only partially transposed.⁸⁷⁵

The MEDA Project suggested that one law be drafted and adopted to transpose the requirements of the Directive (and the Habitats Directive). All other conflicting laws and provisions had to be repealed. The draft Law on Hunting did not fulfill the requirements of the Directive, and as its name suggested, was too limited in scope. The Annexes to the Directive

⁸⁷² Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

⁸⁷³ For the Schedule of 2003 NPAA see ANNEX No:1

⁸⁷⁴ Note that the Turkish SPAs do not correspond to the Directive's SPAs.

⁸⁷⁵ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

could then be transposed by way of regulations under this framework law. One single framework law would then be easier and clearer to implement.⁸⁷⁶

Although the requirements arising from Habitat and Bird Directives generally may be fulfilled within the provisions of 2873 numbered National Parks Legislation (1983) and other existing legislation stated the IEAS, the requirements of these Directives are not completely met.⁸⁷⁷ Turkish national legislation is especially insufficient from the perspective of forming inventories for habitat and species, establishing a system to monitor the habitat and species, identification and classification according to these habitat types and animal and plant species specifically important for these habitat types, taking into consideration of flora and fauna as well as their living environments in spatial plans, forming the networks of protected areas and the defining the management plans. In order to remedy this deficiency, the Draft for Biological Diversity and Nature Protection Law has been prepared.

It is specified in the IEAS that the related necessities with regard to Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) are being partially covered within the framework of national legislation.⁸⁷⁸ However, according to the IEAS, in order for the CITES legislation to be implemented in an effective manner, establishment of a central authority for administration, establishment of infrastructure and rescue centers for the sheltering of confiscated live specimens, simplifying the bureaucratic processes in different institutions, preparation of the guide books towards creating awareness and identification of the species, development of a general branding system for the species are required.⁸⁷⁹

Within the framework of the institutional structuring envisaged by the Draft for Biological Diversity and Nature Protection Law, the IEAS remarked, it is necessary to create a structure that shall remove the above mentioned gaps.⁸⁸⁰ Within the framework of Leghold Traps, the arrangements 3254/91/EEC, 97/602/EC and 35/97/EC take place, and Turkish legislation is mostly in compliance. Directive number 1999/22/EC has the purpose of protecting wild

⁸⁷⁶ For the Schedule of 2003 NPAA see ANNEX No:1

⁸⁷⁷ EU Integrated Environmental Approximation Strategy (2007 - 2023), Ministry of Environment and Forestry, [http: www.did-cevreorman.gov.tr](http://www.did-cevreorman.gov.tr)

⁸⁷⁸ Ibid.

⁸⁷⁹ Ibid.

⁸⁸⁰ Ibid.

animals and conserve biological diversity through licensing and taking necessary control systems of zoos.

There is no general legal arrangement related to zoos. This deficiency is being tried to be resolved with the draft By-law on Establishment and Work Principles and Procedures of Zoos prepared within the scope of numbered Law on Terrestrial Hunting No.4915 (2003) and Animal Protection Law No. 5199 (2004).⁸⁸¹ Turkish legislation does not fully comply with Directive numbered 1999/22/EC.

The nature protection sector has also its own roots and traditions in Turkey, which made the sector a difficult area to be transformed as it is suggested by the path dependency principle. Nevertheless, numerous directives have been transposed into Turkish legislation and various Turkish legislation amended in order to comply with the EU. Although, full harmonization could not be provided, a substantial alteration has occurred in the legislation of nature protection sector, which can be named as a strategic change.

Chemicals

The NPAA of 2001 signified that necessary amendments and modifications in Turkish legislation related to the chemicals are:⁸⁸² Revision of the Regulation on the Control of Noxious Chemical Substances and Products; preparation of the Communiqué on the List of Dangerous Substances; preparation of the Communiqué on testing methods; preparation of the communiqué on the classification of dangerous substances and preparations and the determination of the labeling information; preparation of the communiqué on assessment of risks of the existing substances; rearrangement of the matters pertaining to the use and marketing of asbestos and polyhalogenous organic compounds; arrangement of the restrictive provisions on the marketing and use of other substances and preparations as per the community directive; preparation of the communiqué on the content and format of Security Information Forms.

The Regulation on Dangerous Chemicals transposes many of the requirements of Directives 67/548/EEC, 1999/45/EC. However, the MEDA Project suggested some amendments which

⁸⁸¹ Ibid

⁸⁸² Turkish National Program for the Adoption of Acquis (NPAA), 2001

would be required to this Regulation to fully transpose all of the requirements of these two Directives. One problem identified by the Chemicals Department within the MoE is the difficulty in keeping up with the regular technical amendments to the Directives.⁸⁸³

The EU Directive analyzed in this sector was:

- Classification, Packaging and Labeling of Dangerous Substances Directive: 67/548/EEC, as amended for the 28th time by Commission Directive 2001/59/EC

Directive 67/548/EEC on Classification, Packaging and Labeling of Dangerous Substances, as amended

The MEDA project noted that the Regulation on Dangerous Chemicals, as amended, largely transposed the requirements of the Directive. The technical amendments to the Directive are being systematically updated in the Regulation.

Not all the Directive's definitions were transposed. The MEDA project noted that packaging and labeling requirements were largely transposed, details of the Technical Dossier were transposed, but there was not a notification requirement and some amendments to the Regulation on Dangerous Chemicals would be required to achieve full transposition.⁸⁸⁴

The IEAS noted that chemicals sector includes 15 Directives in total and these are divided into 3 sub-groups based on their scopes. (Chemicals, Good Laboratory Practices (ILU) Genetically modified Organisms (GMO)). The legislation pertaining to the chemicals and GMOs involve very comprehensive measures. These include the following: "preliminary notification of the competent authority and the permissions received from the competent authority; risk evaluation procedures; classification, packaging and labeling of the materials under management; the limitations pertaining to utilization and acquisition; controls and the market surveillance/inspection."⁸⁸⁵

In EU Legislation there are numerous arrangements pertaining to the chemical industry. The most important of them all is REACH by-law that is related with the management of

⁸⁸³ For the Schedule of 2003 NPAA see ANNEX No:1

⁸⁸⁴ For the Schedule of 2003 NPAA see ANNEX No:1

⁸⁸⁵ EU Integrated Environmental Approximation Strategy (2007 - 2023), Ministry of Environment and Forestry, [http: www.did-cevreorman.gov.tr](http://www.did-cevreorman.gov.tr)

chemicals. This by-law was first accepted by the European Parliament on 17 November 2005 and it is about the implementation of new strategies with respect to the management of the chemicals (Registration, Evaluation and Authorization of Chemicals). This by-law that will affect the chemicals industry in Turkey to a great extent, notified the IEAS, will be taken into consideration within the framework of ‘Chemicals Technical Assistance Project’ within the scope of EU financial aids program.

The IEAS indicated that in the chemicals sub-sector only the Directive on the Special Information Systems (91/155/EEC) was fully reflected to the Turkish Legislation. The Dangerous Substances (67/548/EEC), Dangerous Preparations (99/45/EC), Restrictions on the Marketing and Use of Certain Dangerous Substances and Preparations (76/769/EEC) Directives were only partially reflected.⁸⁸⁶ As yet, there is nothing in Turkish legislation that reflects the commission Directive on the Principles of Evaluation of the Risks Posed by the Chemical Substances on Humans and Environment (93/67/EEC). For Directives 67/548/EEC, 99/45/EC, 91/155/EEC, and 93/67/EEC to be implemented the necessary systems, institutional structure and capacity and the legal framework must be established.⁸⁸⁷ This process has been in progress by MOEF within the framework of ‘Technical Assistance Project in the Field of Chemicals’.⁸⁸⁸

There is Turkish legislation reflecting the council by-law 793/93/EC, pertaining to the risk evaluation and control of some dangerous substances as well as the Council by-law 304/2003 pertaining to the imports and exports of dangerous chemicals.⁸⁸⁹ There is no Turkish legislation that reflects the 98/8/EC numbered Commission Directive on the Introduction of Products of Biocide to the Market. However the first component of Water and Biocide Products Projects (TR 0402.10), Biocide Products Twinning Project has been started and By-law for the biocide products will be prepared within the scope of this Project.⁸⁹⁰

The Directive on Asbestos (87/217/EEC) was partially reflected. The 88/320/EEC and 87/18/EEC numbered Directives under Good Laboratory Practices Sub-Sector were reflected

⁸⁸⁶ Ibid.

⁸⁸⁷ Ibid.

⁸⁸⁸ Turkish National Program for the Adoption of Acquis (NPAA), 2008

⁸⁸⁹ EU Integrated Environmental Approximation Strategy (2007 - 2023), Ministry of Environment and Forestry, [http: www.did-cevreorman.gov.tr](http://www.did-cevreorman.gov.tr)

⁸⁹⁰ Ibid.

to a great extent.⁸⁹¹ For ILU Directive to be fully reflected there is need for more studies to be conducted. The Directive on Experiments Involving Animals (86/609/EEC) was partially reflected.

Chemicals sector has been one of the weak ones among the other sectors in terms legislative adaptation to the EU directives. Although only one of the EU directives has been transposed fully into the Turkish legislation, various directives only partially transposed and most of the EU directives in this sector have been pending until an uncertain time. Even, for some of the directives Turkey lacks necessary institutions and legal framework to transpose them into domestic legislation. Thus, the amount of change in legislation of chemical sector indicated only a tertiary change which is limited to only one transposed EU directive.

Genetically Modified Organisms

The MEDA project admitted that the Regulation on the Rules of Experimental Plantation of the GMO Cultivated Plants and the Regulation on the Introduction of GMOs to the Environment and marketing of GMO Products partially transposed some of the requirements of the Deliberate Release of GMOs Directive.⁸⁹² There is not any Turkish legislation transposing the requirements of the Directive of Contained Use of GMOs.

The 2003 NPAA reminded that legislation preparation studies on genetically modified plants were started at the beginning of 1998 by Ministry of Agriculture and Rural Affairs. The Directive concerning genetically modified organisms-transgenic cultural plant field survey prepared at the end of these studies was enforced by Ministerial Permission dated 14 May 1998 and numbered TGD/TOH-032. The 2003 NPAA declared that this Directive included procedures applied on both genetically modified organisms developed abroad and desired to be imported, and genetically modified organisms developed in Turkey.⁸⁹³

In this context, the 2003 NPAA announced that together with the Bio-safety Research and Development Project, the development of the National Biosafety Framework Project, aimed to identify the needs of legal, administrative and technical structures for the implementation

⁸⁹¹ Ibid.

⁸⁹² Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

⁸⁹³ Turkish National Program for the Adoption of Acquis (NPAA), 2003

of the Cartagena Protocol on Biosafety of the United Nations Biological Diversity Convention, are being carried out by the Ministry of Agriculture, Rural Affairs General Directorate of Agricultural Research.⁸⁹⁴

The EU Directives analyzed in this sector are:

- Contained Use of Genetically Modified Micro-Organisms Directive: 90/219/EEC, as amended by Directive 98/81/EC and Council Decision 2001/204/EC
- Deliberate Release of GMOs Directive: 2001/18/EC.

Directive 90/212/EEC on Contained Use of GMOs, as amended

There was no Turkish legislation which transposed the requirements of the Directive. The Ministry of Environment co-ordinated transposition efforts with the Ministry of Agriculture and Rural Affairs.⁸⁹⁵

Directive 2001/18/EC on Deliberate Release of GMOs

The MEDA project asserted that the Regulation on Rules of Experimental Plantation of the GMO Cultivated Plants and the Regulation on the Introduction of GMOs to the Environment and the Marketing of GMO Products did not fully transpose the requirements of the Directive. These Regulations had to be amended to fully transpose the requirements of the Directive; alternatively a new regulation had to be prepared and adopted.⁸⁹⁶

The IEAS informed that in the sub-sector of Genetically Modified Organisms, the harmonization studies with respect to GMO Directives have not yet been conducted. Thus, it can easily be claimed that only very limited progress and compliance could be observed in the legislation of GMOs sector, therefore one cannot talk about any considerable change in this field

⁸⁹⁴ Turkish National Program for the Adoption of Acquis (NPAA), 2003

⁸⁹⁵ For the Schedule of 2003 NPAA see ANNEX No:1

⁸⁹⁶ For the Schedule of 2003 NPAA see ANNEX No:1

Noise

The necessary modifications announced in the NPAA of 2001 about noise from vehicles and machinery was the revision of the Regulation on Noise Control. The said revision was expected to define especially the authorized bodies and to cover all the components of the EU directives relating to monitoring, accreditation and certification proceedings.⁸⁹⁷ The NPAA of 2001 admitted that implementation of the Community requirements would be achieved following the amendments to be made in the legislation on matters such as noise measurements, analysis and reporting.

The MEDA Project admitted that the Regulation on Control of Noise which contained certain requirements that correspond in principle to some of the requirements of the directives. However, the MEDA Project offered a considerable revision and expansion of scope in order to fully transpose these two Directives.⁸⁹⁸ It is suggested to prepare a new regulation(s) transposing these two Directives. The Ministry of Industry and Trade has responsibility for transposing these Directives. The Directives were translated into Turkish, and transposition plans would be developed.

The 2003 NPAA admitted that in order to align Turkish legislation with EU noise legislation, noise maps and action plans, which are taken up in Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise, had to be developed.⁸⁹⁹ The 2003 NPAA reminded that adoption of action plans including preventative measures, based on the results of noise mapping requires considerable infrastructural investment and strengthening of institutional capacity. Within the scope of noise pollution in Turkey, the 2003 NPAA asserted that the Implementing Regulation on Noise Control, which was issued in the Official Gazette numbered 19308 dated 11 December 1986, was in force. Implementation of the regulation was carried out by local authorities. The 2003 NPAA admitted that legislation needed to be reviewed for full harmonization of related EU legislation.⁹⁰⁰

⁸⁹⁷ Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁸⁹⁸ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

⁸⁹⁹ Turkish National Program for the Adoption of Acquis (NPAA), 2003

⁹⁰⁰ For the Schedule of 2003 NPAA see ANNEX No:1

The IEAS Asserted that with By-law that became effective in 2005, full harmonization was established with the Directive on the Assessment of the Environmental Noise and Its Management Directive (2002/49/EC).⁹⁰¹ The Directive has the purpose of combating noise, informing the public, preparation of the noise map and converting the mapping effort into an action plan. For the strategy and plans oriented towards the effective implementation of the directive, the units that are responsible of implementation are required to establish the noise management plans.

The adaptation process in the legislation of noise sector was quite unproblematic compared the other sectors, since the existing Turkish legislation, which had been also affected by the EU, was compatible with the EU directives and legislative field of noise was not a deep rooted and traditional one in Turkey, thus open to change. Therefore, it can be said that the legislation of noise sector is a result of EU impact and an institutional change occurred in this area.

Nuclear safety and protection from radiation

The 2001 NPAA stated that the differences and gaps between the legislation of the Turkish Atomic Energy Agency and that of the EU will be identified and assessed.⁹⁰² About half of the Basic Safety Standards Directive had been transposed, mainly by the Regulation on Nuclear Definitions and the Regulation on Radiation Safety. However, the MEDA project noted that many requirements were found in the non-legally binding Safety Series No 115 Book.⁹⁰³ This same legislation and Book transposed limited parts of the Directive on Protection of Outside Workers. The Regulation on Radiation Safety partially transposed some of the requirements of the Medical Exposure Directives. The Regulation on National Application of Nuclear Emergency Case had fully transposed the Information to the Public Directive. There was no Turkish legislation transposing the Directive on Shipments of Radioactive Waste.⁹⁰⁴

The EU Directives analyzed in this sector were:

- Basic Safety Standards Directive: 96/29/EURATOM

⁹⁰¹ EU Integrated Environmental Approximation Strategy (2007 - 2023), Ministry of Environment and Forestry, [http: www.did-cevreorman.gov.tr](http://www.did-cevreorman.gov.tr)

⁹⁰² Turkish National Program for the Adoption of Acquis (NPAA), 2001

⁹⁰³ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

⁹⁰⁴ For the Schedule of 2003 NPAA see ANNEX No:1

- Medical Exposures Directive: 97/43/EURATOM
- Protection of Outside Workers Directive: 90/641/EURATOM
- Radioactive Waste Shipments Directive: 92/3/EURATOM

Directive 96/29/Euratom on Basic Safety Standards

The Regulation on Nuclear Definitions and the Regulation on Radiation Safety transposed about half of the Directive's requirements. The main transposition gaps include:

- Half of the definitions are not transposed
- Reporting requirements and medical record keeping requirements do not conform to Directive's requirements
- Results of monitoring are not made available to the exposed worker
- Yearly dose limits do not conform
- Requirements for controlled areas are only partially transposed
- There are no requirements concerning exposure to natural radiation sources
- Many requirements and Annexes are contained in Safety Series Book 115 – which did not have legal force.⁹⁰⁵

Full transposition could be achieved by amendment to existing legislation.⁹⁰⁶ The details contained in the Safety Series Book 115 will have to be transposed and given legal force, by amendment to existing legislation.

Directive 97/43/Euratom on Medical Exposures

The Regulation on Radiation Safety contained a section on medical exposures, but was not fully in accordance with the Directive's requirements. The MEDA project advised that the Regulation on Radiation Safety should be amended to fully transpose the requirements of the Directive.⁹⁰⁷

Directive 90/641/Euratom on Protection of Outside Workers

The Statute on Radiation Health and Safety and the Regulation on Radiation Safety did not transpose the requirements of the Directive. The MEDA project asserted that there was no

⁹⁰⁵ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

⁹⁰⁶ For the Schedule of 2003 NPAA see ANNEX No:1

⁹⁰⁷ For the Schedule of 2003 NPAA see ANNEX No:1

definition of ‘outside worker’. The above mentioned legislation could be amended to fully transpose the requirements of the Directive.⁹⁰⁸

Directive 92/3/Euratom on Radioactive Waste Shipments

There was no Turkish legislation which transposes the requirements of the Directive. It was recommended by the MEDA project that a new regulation should be prepared and adopted which transposes all of the Directive’s requirements.⁹⁰⁹

Since early 2000s there has been very limited progress in the legislation of nuclear safety. The achievements in this sector were usually products of late 1990s and early 2000s; even so most of the related directives transposed only partially, even some directives simply have not been transposed into the Turkish legislation. In recent years there has been no development for adapting the legislative area of nuclear safety in Turkey to the EU’s. Thus, limited and short term advancement happened in the sector of nuclear safety and inertia has been observed in this field in recent years. Therefore, in terms of institutional change, the amount of change, especially in recent years, has been inconsiderable; however, the change happened in past years has carried the degree of change in the legislation of nuclear safety sector to the level of a strategic change.

Industrial Pollution and Risk Management

The MEDA project indicated that transposition of the industrial pollution control sector requirements was at an early stage in Turkey. There was very limited transposition of the LCP Directives (88/609/EEC and 2001/80/EC).⁹¹⁰ There was not an integrated pollution prevention and control system in place. The MEDA Project signified that work was not started on transposition of either the Seveso II Directive or the VOC Directive.

The 2003 NPAA asserted that the project entitled “Institutional strengthening for the adoption and implementation of integrated pollution prevention and control directive (IPPC - 96/61/EC)” supported by the bilateral cooperation with the Government of Netherlands,

⁹⁰⁸ For the Schedule of 2003 NPAA see ANNEX No:1

⁹⁰⁹ For the Schedule of 2003 NPAA see ANNEX No:1

⁹¹⁰ Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

MATRA Programme, was initiated in 2003.⁹¹¹ In addition, the 2003 NPAA announced that the Support to Turkey in the Field of Air Quality, Chemicals and Waste Management Project (TR-362.03), which had been submitted to the 2003 Pre-accession Financial Assistance Program, involves strengthening of administrative capacity for harmonizing and implementing Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants.

The 2003 NPAA reminded that the Seveso I Directive was translated into Turkish in 1996 and The Circular on Local Emergency Plans for Major Industrial Accidents was prepared and had been communicated to all provinces. In the frame of the Seveso II Directive (96/82/EC), the Draft Implementing Regulation on Functions of Environment Emergency Centres and Principles of Emergency Intervention was prepared. Since implementation of the Seveso II Directive requires heavy cost investment for both public and private sector, the Seveso II Directive could not be elaborated in the 2003 NPAA.⁹¹²

The 2003 NPPA indicated that for the harmonization and implementation of Directives on industrial pollution and risk management, particularly integrated pollution prevention control and the limitation of emissions of certain pollutants into the air from large combustion plants, heavy cost investments and strengthening of technical capacity were required.⁹¹³ The 2003 NPPA continued as stating that for the implementation of legislation under this priority, transition periods will be required depending on whether the investment needs are met.

The EU Directives analyzed in this sector are:

- The new Large Combustion Plants Directive: 2001/80/EC
- Industrial Pollution Prevention and Control Directive: 96/61/EC

Directive 2001/80/EC on Large Combustion Plants

The MEDA Project noted that the Regulation, on Protection of Air Quality did not transpose many of the Directive's requirements. The draft Law on Amendments to the Environment

⁹¹¹ Turkish National Program for the Adoption of Acquis (NPAA), 2003

⁹¹² Turkish National Program for the Adoption of Acquis (NPAA), 2003

⁹¹³ Turkish National Program for the Adoption of Acquis (NPAA), 2003

Law would introduce penalties for breaches of national provisions. The draft Regulation on EIA did not transpose the transboundary effects requirements.

It is offered by the MEDA project that significant amendment to the Regulation on Protection of Air Quality would be required to fully transpose the requirements of the Directive. It was strongly suggested by the MEDA project that it would be preferable to draft a new regulation which takes into account the new Directive (2001/80/EC) on LCPs.⁹¹⁴

Directive 96/61/EC on Integrated Pollution Prevention and Control

There was not an integrated approach taken to pollution prevention and control in Turkey, stated the MEDA project. Legislation, which was media specific, was not in accordance with the requirements of the IPPC Directive. The MEDA project strongly suggested a new regulation be adopted, under the draft Law Amending the Environment Law, transposing the requirements of the IPPC Directive. The concept of IPPC had to be included in the draft Law Amending the Environment Law.⁹¹⁵

The IEAS informed that Integrated Pollution Prevention and Control Directive (IPPC 96/61/EC), Large Combustion Plants Directive (LCP-2001/80/EC), Council Directive on the Limitation of Emissions of Volatile Organic Compounds Due To the Use of Organic Solvents in Certain Activities and Installations (1999/13/EC), Petrol Vapor Recovery Directive (1994/63/EC), The Directive on The Control of Major Accident Hazards Involving Dangerous Substances (SEVESO II-96/82/EC), Eco Labeling by-law (1980/2000), By-law on EU Eco-Management and Audit Scheme (EMAS) (761/2001), are included in the scope of Industrial Pollution Control; and among these, the studies related to the Integrated Pollution Prevention and Control Directive (IPPC 96/61/EC) and Large Combustion Plants Directive (LCP-2001/80/EC) have been started.⁹¹⁶

Integrated Pollution Prevention and Control Directive (IPPC 96/61/EC), constitutes the basis of European Union's Industrial legislation from an environment perspective. This is because the Directive has taken the place of previous EU legislation that was structured on a receiving

⁹¹⁴ For the Schedule of 2003 NPAA see ANNEX No:1

⁹¹⁵ For the Schedule of 2003 NPAA see ANNEX No:1

⁹¹⁶ EU Integrated Environmental Approximation Strategy (2007 - 2023), Ministry of Environment and Forestry, [http: www.did-cevreorman.gov.tr](http://www.did-cevreorman.gov.tr)

media basis, and it brings forward a permit procedure that evaluates all the receiving media in a comprehensive manner.

There is still no integrated permit system, related to environment available in Turkey. A different permit system is implemented for each receiving medium. The IEAS suggested that legislative arrangements need to be undertaken that allow for granting or coordination of related permits by one competent authority during the EU harmonization process and the formation of technical and administrative structures serving to this purpose.⁹¹⁷ The IEAS announced that work by the Ministry of Environment and Forestry on the topic of "Capacity Building Project from Human Resources Aspect on the adoption of Integrated Pollution Prevention and Control Directive (IPPC-96/61/EC) to Internal Legislation" is completed on 2004, "Project for IPPC Implementation in Turkey" is still ongoing.⁹¹⁸ The implementation strategy of the aforementioned directive within the scope of the project and constituting the draft legislation is targeted.

The IEAS indicated that Large Combustion Facilities Directive (LCP-2001/80/EC), brings limit values to the dust, sulphur dioxide and nitric oxide emissions originating from Combustion facilities with thermal input of 50 MW or greater, without any regard to the type of fuel (solid, liquid or gas) being used. A draft by-law has been prepared oriented towards the harmonization of this directive with the internal legislation and this has been submitted to related establishments and institutions so as to take their opinion.⁹¹⁹

The purpose of the 1999/13/EC numbered European Council Directive related to Organic Solvents Used in Certain Industrial Work: to decrease or prevent the direct or indirect effects of volatile organic compounds on the environment (especially to the air and public health). Although facilities within the scope of Industrial Sourced Air Pollution Control by-law are obliged to obtain emission permits according to their capacities, complete harmonization to the Directive has not been achieved in integration terms such as plans for the decrease of volatile organic use etc.⁹²⁰

⁹¹⁷ Ibid.

⁹¹⁸ Ibid.

⁹¹⁹ Turkish National Program for the Adoption of Acquis (NPAA), 2008

⁹²⁰ Ibid.

The IEAS specified that limit values have been established for the protection of air quality for the organic gas and vapor emissions (VOC emissions included) arising from industrial facilities within the scope of Industrial Sourced Air Pollution Control by-law.⁹²¹ However, since the existing by-law does not fully conform to the requirements of the Directive, a new arrangement is needed.⁹²² In order for the Directive to be implemented, work needs to be performed in the areas of limit values according to the sectors as well as measurement and monitoring methods, determination of the locations, numbers, capacities and current status of the facilities and increase of the current capacity needs to be done in order to have harmonization of internal legislation to the directive.

Directive Related to Volatile Organic Compounds (1994/63/EC) arising from storage and distribution of petroleum products has the purpose of combating air pollution by decreasing the Volatile Organic Compounds released by facility, vehicle and ships with performed or used processes, during the storage, filling, transport from one terminal to the other or from one terminal to the service station. It is signified in IEAS that within the harmonization context of this Directive, the coordination of related establishments is required to protect air quality, fuel quality and licensing work. Although the facilities are obliged to procure emission permits according to their capacities within the scope of Industrial Sourced Air Pollution Control by-law, complete harmonization to the Directive has not been achieved.⁹²³

The Directive on the Control of Major Industrial Accidents Hazards involving Dangerous Substances (SEVESO II-96/82/EC), aims the control of the damages resulting from the major accidents involving dangerous substances and reduction of the damages these accidents may cause on humans and environment. This Directive is applicable to establishments where dangerous substances are present in specific quantities. Draft by-law on “Control of Major Industrial Accident Hazards” has been prepared for approximation with the above mentioned Directive.⁹²⁴

Eco Labeling Statute (1980/2000 (Eco Labeling) aims for the firms to be encouraged in offering products and services that are more customer and environment friendly and the

⁹²¹ EU Integrated Environmental Approximation Strategy (2007 - 2023), Ministry of Environment and Forestry, [http: www.did-cevreorman.gov.tr](http://www.did-cevreorman.gov.tr)

⁹²² Turkish National Program for the Adoption of Acquis (NPAA), 2008

⁹²³ EU Integrated Environmental Approximation Strategy (2007 - 2023), Ministry of Environment and Forestry, [http: www.did-cevreorman.gov.tr](http://www.did-cevreorman.gov.tr)

⁹²⁴ Turkish National Program for the Adoption of Acquis (NPAA), 2008

record keeping pertaining to the subject. For the requirements of this Statute, which is based on voluntary act, to be carried out, the studies under the coordination of the related institutions must be conducted. In Turkey the work with regard to the harmonization with this Statute has not been started yet.⁹²⁵

By-law on EU Eco-Management and Audit Scheme (761/2001) is a management tool for companies and other institutions to assess report and develop their environmental performance. Participation to EU Eco-Management and Audit Scheme, which has been implemented to all economic sectors including manufacturing/production sector, public and private sector services since 2001, is based on voluntary participation principle. The 2008 NPAA declared that the studies related to the transposition on EU Eco-Management and Audit Scheme, which covers the public and private institutions that are acting in European Union and European Economic Area (EEA-Iceland, Liechtenstein and Norway) has not been started in Turkey yet.⁹²⁶

In the legislation of industrial pollution and risk management sector the compliance between EU directives and Turkish legislation, although some advancements realized, seemed not to be achieved yet. However, a systematic work is being conducted to cover all related areas and transpose almost all necessary EU directives into the Turkish legislation. Thus, in terms of institutional change, it is on its way in the legislation of industrial pollution and risk management sector, however, it has not reached yet. Therefore, it can be argued that only secondary changes occurred in this field.

3.4. Conclusions

In the third chapter the process and consequences of institutional change were analyzed. This chapter consisted of three parts. The divergence between European and Turkish institutions in the field of environment was presented first and it was followed by European pressures for adaptation to Turkey. Finally the responses of Turkey to the adaptational pressures were evaluated.

⁹²⁵ Ibid.

⁹²⁶ Ibid.

The goodness of fit between Turkish and European Environmental Policies was first discussed in the first section of the chapter. Specifically dealing with several misfit areas, such as legislative misfit, organizational misfit, participative misfit etc. made the discussion more comprehensive. After discussing the gaps between Turkish and European environmental policies, the section continued with how the EU influences Turkey in the field of environmental policy. The progress reports of European Commission and the Accession Partnerships issued by the European Council were analyzed as the direct sources of adaptational pressures from the EU.

The chapter was completed by the responses of Turkey to the pressures from the EU. The responses of Turkey considered as incremental to the adaptational pressure; since there have been no revolution or revolution-like actions in Turkish environmental policy. The first step in institutional change were named as preliminary actions; since every time the objectives were set and plans were made in certain official documents before any step was taken in the field of environment. These objectives and plans were demonstrated through National Environmental Action Plan, Eighth and Ninth Five Year Development Plans, the National Programs of Turkey for the Adoption of Acquis and the EU integrated Environmental Approximation Strategy. In the final part of the section the actual proceedings made in the environmental policy of Turkey for coming in line with the European Environmental Policy were elaborated. The institutional change was approached through a three dimensional view: the change efforts are analyzed through the dimensions of the policy making, organizational structure and legislation. In order to extend the area of research a sector by sector assessment was chosen, which provided a more comprehensive and detailed view.

The 'goodness of fit' between the European and the domestic level determines the degree of pressure for adaptation generated by Europeanization on the member states: 'The lower the compatibility between European and domestic processes, policies, and institutions, the higher the adaptational pressure'. In general, if European norms, rules, and the collective understandings attached to them are largely compatible with those at the domestic level, they do not give rise to problems of compliance or effective implementation.

There are two conditions for expecting domestic changes in response to Europeanization: First Europeanization must be "inconvenient", which implies a 'misfit' or 'incompatibility' between European processes, policies and institutions, on the one hand, and national level

processes, policies and institutions on the other. This degree of misfit constitutes an adaptational pressure which leads to a necessary condition for expecting domestic change. For instance, local authorities have limited human resources to undertake their responsibilities. Only 10% of all public employees worked at the local level as compared to 31% in Germany, 60% in the U.S. and 65% in Japan. This situation was further weakened as political patronage often plays a role in the selection, appointment and promotion of municipal staff.⁹²⁷ Finally, local governments were not autonomous in their ability to set salaries for qualified personnel, create or eliminate positions as needed. Also, for solid waste management, the two most common approaches adopted in other countries (contracting collection services and concession contracts for developing and operating waste disposal facilities) were difficult to implement.

The second condition is a range of facilitating factors responds to the adaptational pressures. For example, the collections of economic instruments used successfully in other countries were applied in Turkey, as well. These included user charges based on the long-run social cost of providing services, development taxes linked to environmental improvements, charges on polluting products, performance bonds, effluent charges imposed within a watershed or airshed, and differentiated taxes to discourage the use of polluting fuels.⁹²⁸

In brief, misfit and resulting adaptational pressures constitute the starting point for any causal mechanism discussed in the literature. Inconvenience in administrative, participative, institutional and legislative areas between the EU and Turkey in environmental policy were determined as ‘Misfit’ in this dissertation.

Contrasts between the functions of the MoEF and lack of necessary equipment for properly performing its duties have led to various deficiencies. In particular, as its structure allows activity only through political power, the MoEF could not function as effectively as it should. Units within the MoEF seek public participation in environmental decision-making, but they were limited by administrative procedures. For instance, representatives of voluntary organizations must be invited by the Minister to the Environment Council and together can number no more than twenty five. Also, the Environment Council is defined as a consultative

927 TUSIAD “Local Government in Turkey: Problems and Solutions (Executive Summary)” TUSIAD Publication No. T/96.5.198, 1996, Istanbul
928 OECD; “Environmental Policies in Turkey”, 1992, Paris.

organ and its decisions were only effective when they were approved by the Minister. Further, the composition of the Environment Council, Higher Council for Environment, and the Local Environmental Councils was incomplete as it had only a limited number of engineers, architects, planners, health personnel, workers producing goods and services, artisans and craftsmen. Another shortcoming was the overriding power of Government representatives, especially in the Local Environmental Councils. Various legislative arrangements that were introduced to ensure the right to participate actually limit the participation of scientists, teachers, government employees, and students. Transparency was also a problem, and citizens were often unaware of how decisions were made or how they could participate in the process. Moreover, Government information about environmental conditions, policies, programs, and projects has not been available.

Although numerous plans were developed, their usefulness was limited. For example, urban development plans did not keep pace with rapid population growth and changes in settlement patterns, and were therefore irrelevant. The plans were also confined to physical dimensions, not integrated with projections and targets of other plans, and were frequently changed. Environmental plans were created by the Ministry of Public Works and Settlement, addressing local issues, and not necessarily complying with environmental issues that are of concern to the MoEF. This led to conflicts. Moreover, a conflict of authority and responsibility existed with respect to devising plans and implementing them. The documents often lacked data and inappropriate planning techniques. According to the Seventh Plan, the results were "irrational decisions in the development and distribution of national resources and failure in directing local investments to proper sectors and site selections."

Regulatory capacities as well as monitoring/evaluation capabilities of the MoEF and Local Environmental Councils were not sufficient for effective environmental management at the local level which was relatively more important for effective environmental management. Therefore, there was a need to strengthen provincial level capacity to support development of environmental protection and management activities operated by municipalities. This could include urban pollution abatement strategies and local environmental action plans, monitoring and evaluation of environmental conditions, permitting and enforcement, and development of financing mechanisms for environmental management. The latter was especially important as municipal revenue raising capacity was weak

Equally problematic, the EIAs was lacking various critical inputs, such as a reliable database, baseline and inventory studies on environmental conditions, sufficient budgets and qualified professionals in the public sector to prepare them properly, and mandatory monitoring and auditing mitigation measures. Also, some public agencies did not want to apply EIA procedures for public investments. In addition, they were hampered by lengthy periods for assessment, lack of monitoring to evaluate and enforce compliance with mitigating measures, insufficient public participation, and conflicting authority and responsibility among units that make public investment decisions.

CONCLUSION

The relations with the EU initiated a substantial course of change in Turkey. Especially, since the 1999 Helsinki Summit, the process of candidacy boosted the efforts of integration and subsequent to the announcement of accession negotiations in 2005 Brussels Summit the relations got institutionalized. Turkey has initiated an attempt of reforms in almost all areas and institutions. One of those institutions has been the environmental policy, which had numerous incompatibilities in legislation, organizational structure and policy making between Turkey and the EU. This made the environmental policy the case of research in this study, since more misfits among the institutions enables one to observe the course of change more clearly. The adaptational pressures from the EU, Turkey's commitments and responses in Environmental Policy have been evaluated in the light of the approaches of Europeanization and Institutional Change and their arguments, such as: misfit, goodness of fit, institutional lock-in and path dependency in this dissertation.

In terms of legislation the misfit between Turkey and the EU was considerable; although Turkey had changed its environment code, the misfit was especially apparent in the conception of environment and applicability of the articles of the code. Moreover, the public officials, who would be responsible for application, were poorly informed about the change in environment code and related adjustments.

There was also a substantial misfit in organizational structure between Turkey and the EU. The existing organizational structure about environment seemed adequate, but almost all of them lack necessary instruments to function properly. They mostly suffer from poor representation, financing and economic problems, overlapping of authorities of different organizations and inadequacy in quantity and quality of the employees. In addition to public organizations, the NGOs also had problems. Especially participating in decision making and implementation procedures and lack of instruments and qualified personnel had been the main problematic areas in NGOs.

In terms of participation a significant misfit could be observed. Although it has been anticipated by the units within the organizational structure of environment, the administrative procedures constrain the public participation to a large extent. Efficiency of administrative

instruments was too poor compared to EU standards, which caused a major misfit. The plans, which are main instruments in many fields of Turkish public administration, were far from usefulness. They lacked data and planning technique, thus they cause clash of authority between different organizations and therefore they usually were irrelevant. Additionally, regulatory, monitoring and evaluation capacity of both central and local public organizations were insufficient. Moreover, the EIAs, one of the most important instruments in determining environmental problems and taking action against them, were lacking various critical inputs, such as reliable data and inventory, sufficient budgets and qualified professionals.

In almost all fields of environmental policy there was an extensive amount of misfit between Turkey and the EU. Thus, it was easily argued that the goodness of fit between the EU and Turkey allowed an intense Europeanization. In other words, the European norms, rules, and the collective understandings attached to them were largely incompatible with those at Turkey; thus, they gave rise to problems of compliance or effective implementation. The two conditions for expecting domestic changes in response to Europeanization, which are 'misfit' or 'incompatibility' between European processes, policies and institutions, on the one hand, and national level processes, policies and institutions on the other and a range of facilitating factors responds to the adaptational pressures, were existed in our case. Thus, these conditions were suitable to continue research on Europeanization and institutional change in environmental policy in Turkey.

The adaptational pressure for institutional change could take different forms. In case of Europeanization either the normative power or official interference of the EU or, in many situations, both of them might have impact on domestic institutional change in member states or candidate countries. Measuring the normative power of the EU and its impact on domestic institutional changes in a candidate country would have created some serious methodological problems in this dissertation, since analyzing the meaning of environment and environmental institutions normatively and reaching a conclusion of what these concepts meant for all of the EU countries would be a long and difficult research which was not within the tasks of the dissertation. Thus, official and direct involvements of the EU, the progress reports and accession partnership documents, had been employed as the instruments for adaptational pressure, in which the demands for change were clearly expressed and therefore they were uncomplicated to be analyzed.

According to progress reports Turkey made quite a limited progress in complying with the EU environmental acquis. Some improvements, especially in the forms of changes in environment related laws, were mostly appreciated by the reports. These changes were usually about designing of the institutions, thus improving the administrative capacities. However, according to following progress reports, the newly designed institutions lacked sufficient instruments to be effective enough; therefore the changes made were mostly irrelevant. Although, relevant organizations and employees were appeared on the scene, since they lack the significant tools for application of new laws, regulations, constraints and fines, they had very limited impact on institutional change of environmental policy in Turkey. Finally, it can be argued that, in the field of environmental policy, according to the progress reports, some changes were made at the level of laws and regulations, but their reflections on operational level were quite narrow in Turkey. In the terms of Europeanization and Institutional Change, although there was a misfit between Turkey and the EU in the field of environmental policy, the Europeanization occurred was limited, in other words there are some institutional adjustments but it is difficult to talk about an institutional change in Turkish environmental policy.

Accession Partnerships are the instruments of the EU, other than the progress reports, for making adaptational pressure on candidate countries. Accession partnerships are a pre-accession strategy instrument which determines the candidate countries' particular needs on which pre-accession assistance should be targeted and provides a framework for; the short and medium-term priorities, objectives and conditions determined for each candidate country on the basis of the accession criteria (Copenhagen criteria) in accordance with the Commission's opinion on its membership application and Pre-accession assistance. In other words, accession partnerships draw the schema of Europeanization and institutional change for the candidate country. Even, a timetable and a detailed plan are required from the candidates, namely, a National Program for the Adoption of the Acquis (NPAA).

Similar to conclusion reached by the progress report analysis, it can be argued that according to accession partnerships Turkey have taken some steps forward to comply with the European environmental policy but they were either insufficient or too shallow that were usually considered incapable for meeting the terms of the EU. Furthermore, it was implicitly expressed that although Turkey adopted some legislative changes; implementing and making operational of those legislation remained poor.

The process of considerable institutional change in environmental policy in Turkey has begun in late 1990s. Joining Customs Union in 1996 and being announced as an official candidate in 1999 required Turkey to take concrete steps in harmonization with the EU, which included the adaptation of environmental policy in Turkey to the environmental policy of the EU. The issue of environment perceived quite differently in Turkey and Turkish environmental practices were absolutely not in harmonization with that of the EU's in those years. Thus, the adaptation process required Turkey an extensive amount of work, time and financial resources. However, under the impact of official adaptational pressures from the EU and as being a committed candidate to the EU full membership, Turkey initiated the adaptation process as early as 1999.

An institutional change does not occur suddenly, especially if the institution subject to change is quite an extensive one and if it has substantially different paths than that of the one which the institution is expected to be converged. Thus, the process of change is usually incremental and each step requires a preliminary phase. This has also been true for our case: environmental policy in Turkey. There have been several steps in transformation process of environmental policy in Turkey and each step has been prepared by certain documents and commitments.

The NEAP, as the first most concrete and comprehensive policy document on Environmental Policy in Turkey has also set the strategic objectives and a set of principles on how to achieve these objectives. Based on these principles, a number of action areas, comprising several specific actions, were put forward for consideration. The principles articulated in NEAP carried the evidences of EU's normative impact. The general principles imposed in numerous EU documents and especially in founding treaties such as transparency, democracy, efficiency, decentralization and subsidiarity, which were not only created for a specific policy area but for a common purpose of reliable European integration, were re-formulized in NEAP and applied to environmental policy in Turkey. Thus, it can be claimed that the NEAP had the overtones of both direct effect and normative impact of the EU as early as the year of 1999. In terms of Europeanization, the NEAP has been the first official document in Turkey which pronounced the areas of misfit between Turkey and the EU in the field of environmental policy and made commitments for institutional change.

In Turkish political system the five year development plans and their supplements are the basic and quite detailed policy documents for activities of a certain period of time. Almost all future policies are determined and frameworks for those policies are drawn by these documents. The Eighth Five Year Development Plan was the first one of these documents within the time period of this research. The EFYDP stressed internationalization of environmental policies in Turkey in the first case. Although quite briefly, the studies on harmonization of the policy implementations and the decisions made on the solution of the environmental problems with the EU norms and international standards were also stated by the EFYDP. The EFDYP acknowledged the basic action categories and priority areas defined within the NEAP and stated that they had to be overviewed while ensuring coordination and participation among main stakeholders. Therefore, it can be argued that the EFYDP stated Turkey's intention to comply with the international and European environmental norms; and reformulated the commitments made in NEAP for accommodating them in general Turkish political context. In other words, although NEAP was an official document, the objectives and principles mentioned in it had to be included in FYDP to become an official policy of Turkey. By this inclusion the commitments could be coordinated with the related policy areas and found place to be implemented. In terms of Europeanization and institutional change, the misfit between European and Turkish environmental policy was politically recognized by the EFYDP and it officially opened up the path for actions to realize the institutional change.

The National Programs for Adoption of Acquis (NPAAAs) are official and binding commitments of candidate countries to comply with the EU norms and adoption of Acquis Communautaire. They are quite detailed documents which also include an implementation timetable. In other words they are the catalysts of change in domestic policies, legislations and organizational structures towards European ones. Thus the objectives stated in these documents are concrete promises of the candidate country. Turkey issued three NPAA in the years of 2001, 2003 and 2008.

Similar objectives were present in NPAAAs with the EFYDP and NEAP, however, the basic difference of the NPAAAs from the previous documents is, the NPAAAs directly address the EU and they set their objectives completely in line with the EU documents, such as, progress reports and accession partnerships. In other words, the NPAAAs are such documents in which one can easily observe the straight responds to the adaptational pressures from the EU. Therefore, it can be argued that, in Europeanization and institutionalism terms, the objectives

in the NPAAAs were formal statements of Turkey for institutional change while clearly recognizing and responding the source of the adaptational pressure.

The issuing of EU Integrated Environmental Approximation Strategy (IEAS) points a lock-in situation at environmental policy in Turkey. In institutionalist literature 'lock-in' indicates a situation, where deviations from the initial path become increasingly costly or difficult as a result of the institutionally structured distribution of power between different actors. In other words, in this situation instead of settling for little arrangements, changes or modifications are unavoidable. Environment chapter have been opened in accession negotiations, partly because of this action taken by the government and from this point on it have become more difficult for Turkey to turn back than keeping the track towards adaptation with the European Environmental Policy.

The IEAS committed that Turkish environmental policy would be based on following principles: 'The right to live in a healthy and balanced environment, the integration between the sectors, the user-polluter shall pay, taking the measures to prevent the pollution, protection of the natural resources, sustainable development, cooperation between the private-public sector, increasing the environmental consciousness in the public eye and the public participation'. Actually, these principles announced in the IEAS are basically internationally agreed principles and almost all of them can be found in EU environmental documents, especially in 6th Environmental Action Plan. So to say, by the IEAS Turkey demonstrated its intention to fully comply with the environmental policies, norms and values of the EU.

From the date of publishing of IEAS, it seems quite difficult for Turkey to renounce commitments and principles declared in the document. Besides, the IEAS is an official document and it binds the government; it had a concrete and irrevocable consequence in EU-Turkey relations that is opening up of the accession negotiations with the EU on the topic of environment. Therefore, for Turkey, giving up the commitments and principles would mean abandoning the objective of becoming a full member of the EU. Thus, the price of turning back to old policies and norms would be far more than keeping the track with the institutional change towards adapting to the European Environmental Policy. In terms of Europeanization and institutional change, the situation of environmental policy in Turkey – EU relations is a lock-in, which indicates that the impact of Europeanization on domestic institution reached to the extent of an irreversible point.

The ninth five year development plan (NFYDP) has been the last state level document pronouncing the progress and problems in environmental policy of Turkey. On the institutional and administrative issues the NFYDP signified that the uncertainties about the duty and authority distribution among institutions, for environment, could not be adequately eliminated. Within the EU harmonization process, the NFYDP asserted that even though progress had been achieved regarding waste management, protection of the nature, noise and environmental impact assessment, many regulations were still needed in this field. However, the NFYDP pointed out that as a result of the excessive amount of costly investments required for harmonization, new financing methods including the participation of the private sector has come into the agenda. The NFYDP drew attention on the need to improve the infrastructure for environmental monitoring, auditing and reporting for increasing their efficiency and to ensure that the information flow and exchange among the relevant institutions are carried out through an integrated system. The NFYDP did not say anything new; however, pointing out the progress made in environmental policy and indicating problematic areas in an official document where the planned policies of the State are written, was significant to show the determinism of Turkey to comply with the EU policies and norms about environment.

This dissertation acknowledged the fact that institutional change was a matter of degree, but suggested that the criterion for deciding whether any shift qualifies as an institutional change should not be the degree of change (i.e. incremental or dramatic), but it should be the content of the change. This was a much more useful approach to institutional change. Focusing on the degree of change as the criterion for defining a change as institutional change was problematic because it would be difficult to give an objective answer to the question of the degree or threshold that should be passed in order to define a change as institutional change. A better strategy, therefore, had been to focus on whether there was any change in the defining features or elements of institutions. This method, of course, did not eliminate the degree problem, but it offered a better way for deciding whether an existing institution was changing.

Emphasis on institutional stability or continuity in institutionalist literature should not imply that institutions are immutable structures. Change, either dramatic or gradual, is abound in the institutional world. However, change might take place within any scope of an existing institutional setting (normative core, goals and instruments), but not all types of changes

would qualify as an institutional change. Change in the normative basis of an institution is defined as ‘fundamental (primary) change’. This type of change involves a gradual or dramatic shift in the norms, principles, values and collective identity of an institution. It refers to the institutionalization of totally new norms or the transformation of existing institutional norms into a new form. Adoption of new goals, missions or purposes or adaptation of institutional goals to new situations and times becomes ‘strategic (secondary) change’. ‘Tactical (tertiary) change’ refers to changes in the rules, procedures, and administrative or organizational structures. In this case, only the instruments or means of institutions change. An institution might adopt new policy instruments or new decision-making procedures such as a shift from consensus to majority voting.

Among these three types of changes, only the first one was classified as an institutional change, because in this case, the defining elements of an institution (normative core) took different forms (i.e. change to a new path). As indicated above, institutions rest on a normative basis. Different institutions might have similar instruments and goals but what makes them distinctive are their norms, principles, values and collective identity. In other words, the normative basis (the first component) becomes the defining element in an institutional setting. Any change in this defining element was considered as an institutional change. Changing goals and instruments; such as adopting new objectives, redesigning organizational chart and developing new resources, strategies, policies that did not alter the normative core, was not defined as institutional change.

Three different but interrelated dimensions of environmental policy in Turkey were observed in the last section of the dissertation: Policy Making, Organizational and Legislative Structures. All these dimensions were evaluated through sector analyses, such as air quality, water quality and waste management. In order to find out any shift in the institutional structure; existing adjustments, changes or transformations and the planned ones in these sectors were elaborated.

Policy making dimension was firstly analyzed in the last section as being the means of the environmental policy in Turkey. It was aimed to observe the change in methods and political goals in the field of environmental policy. Furthermore, the degree of the change is also an issue to be addressed. The sectors of; air quality, water quality, waste management, noise, nature protection, horizontal sector, chemicals and genetically modified organisms, nuclear

safety, climate change and industrial pollution were evaluated. Evaluation was based on official documents such as National Program of Turkey for Adoption of the Acquis, National Environmental Action of Turkey and EU Integrated Environmental Approximation Strategy.

In the sector of air quality, there had been a very limited change in policy making; the objectives and perception of the problem have not been changed but only the policy plans became more concrete and the discussions on air quality issues through the years made the public more informed about air quality policy, thus the people are aware of the harmful effects of air pollution. In terms of institutional change, in air quality sector one could only talk about a slightly change in objectives which hardly indicated a secondary (strategic) change.

The awareness of public about water quality issues have been arose in the course of the years between 1990s and 2010. The concept of sustainable development got involved in water quality policies and the projects for improving the quality of water became more concrete and applicable. The involvement of sustainable development might counted as a change in normative core of the water quality sector, however, the remaining developments indicated secondary changes, in other words, basic alterations in goals and missions of the water quality policies. There were some signs of institutional change, but it was more clearly a strategic change.

In the years between 1990s and 2010 Turkey have made changes in the rules of waste management, organizations responsible of waste management were reorganized and some new procedures were introduced by several regulations. However, it can be argued that all these changes were tertiary changes; they did not change the core of the waste management policy, even the objectives and mission of the waste management policy remained almost unchanged, thus the change happened in waste management policy was only a tactical change.

The only change in noise sector policy during the years has been the realization of the instruments for achieving the objectives mentioned in 1990s and repeated in 2000s. Therefore it can be claimed that the change remained at level of tertiary or tactical change.

It can be argued that even though nature protection was a well handled issue in Turkey since many years, in order to reach EU standards it has a long way to go. Adopting new regulations

and reorganizing institutional structure to deal more efficiently with nature protection issues were steps taken forward in nature protection; however, there has been a limited change in the perception of nature protection policy. The problems to be addressed were almost same in 1990s and 2000s, which indicated that despite the developments and reforms the nature protection problems have not been solved and the policy could not be in line with the EU. Thus, in terms of institutional change, some changes occurred in organizational structure and legislative field but they remained at the degree of strategic changes and therefore it was difficult to argue that a primary change happened in nature protection policy, only a secondary change could be observed.

It can be observed that the policy area related to chemicals and GMOs got extended in the course of the years between 1990s and 2010 and it can be detected that most of the issues mentioned in policy documents in 1990s were not in the agenda of 2000s, which implied that those problems were overcome. Moreover, the general approach to chemicals and GMOs seemed to be changed in Turkey during the years; not only providing information and reduction of the risks were in policy agenda but prevention of the risks at their sources has become a principle of policies about chemicals and GMOs, which indicated a change at the core of the policies. Thus, in terms of institutional change, beside the secondary changes a primary change has also occurred in the field of chemicals and GMOs; therefore it can be argued that an institutional change appeared in chemical and GMO policies.

In 1990s the main aim of the policy about horizontal sector had been, in order to come in line with the Acquis Communautaire, application of the environmental impact assessment (EIA) and building a national environmental database system. In 2000s essential aim in the policy of horizontal sector has been to provide environmental information by establishing Environmental Information System, to establish Turkish Environmental Information Exchange Network to develop the environmental management system targeting the protection of the environment. The EIA and SEA would be applied properly in order to support this objective. As it can be seen, the policies and perceptions in the field of horizontal sector have not been changed in the course of the time. Even, there has been no change in the instruments, objectives or mission of the horizontal sector. Thus, it can be claimed that no change had happened in the horizontal sector.

In 1990s the legislation applicable to the Turkish Atomic Energy Agency was based on the “Basic Safety Standards” of International Atomic Energy Agency (IAEA) and the revisions were made on a regular basis by closely following the recent developments up-to-date. The final objective of the nuclear safety policy was the harmonization of the existing legislation of Turkish Atomic Energy Agency with the related EU legislation. In 2000s many of the general requirements of the basic safety standards Directive and the medical exposure Directives had been implemented, although monitoring and reporting requirements need strengthening. Thus, it can be argued that in the field of nuclear safety the misfit between Turkey and the EU was not broad and consequently there was no need to institutional change in order to come in line with European nuclear safety policies. Some minor arrangements were made in order to remove little incompatibilities.

There was almost no policy about industrial pollution in Turkey. Therefore, there was a wide misfit between Turkey and the EU. Consequently a very comprehensive policy on industrial pollution has been developed at 2000s in Turkey. Thus, the industrial pollution policy has changed from nothing to a widespread policy area. Consequently, it can be claimed that, in terms of institutional change, any change occurred from zero is a primary change; accordingly, there has been a primary change in the industrial pollution policy.

Alongside the policy making, organizational structure constituted also a significant research area in the analysis of institutional change as it has been forming the concrete entities in which the institutional norms emerge and policies made and implemented. It was aimed to observe the change in general organizational structure as forming new institutions and revising the existing ones. Furthermore, the degree of the change has also been an issue to be addressed. The sectors of; air quality, water quality, waste management, noise, nature protection, horizontal sector, chemicals and genetically modified organisms and nuclear safety were evaluated.

The requirements and defined situation on organizational structure and personnel needs in air quality sector at 1990s and 2000s appeared to be similar. No new institutions have been built or necessary reformation in existing ones could be observed. The need for educated and qualified staff and clarifying the responsibilities of related organizations has continued to be pronounced in official documents but there have been no considerable development in both of

these areas. Thus, it can easily be argued that in terms of institutional change, no progress in organizational structure has happened in air quality sector.

The commitments in 1990s and 2000s in water quality sector about organizational structure appeared to be ambitious; however, during the years since 1990s there has been no significant improvement in institutional structure and no new organizations related water quality issues has been formed. Even though the urgent need for new institutions, reformation in existing institutions and trained staff has been emphasized; only a limited amount of personnel, whose qualifications were questionable, had been recruited to the institutions about water quality. Therefore, although, assertive commitments made in official documents about institutional change on organizational structure in water quality sector, there was hardly an institutional change. Let alone a primary change, even it is difficult to mention any secondary or tertiary change.

In the waste management sector, although the need for a new organizational formation and additional staff has been stressed; there has been no substantial progress in this field within the course of the years until 2010. Thus, no institutional change in organizational structure of the waste management system could be observed.

In the noise sector, although it has been assertively pronounced that reformation and change in organizational structure and recruitment was essential, there has been almost no advancement since 1990s. The requirements for establishing new institutions and employing trained staff have been concretely expressed; even the estimated costs have been calculated for the anticipated improvements, during the years until 2010; however, there has been no considerable development in the noise sector. Therefore, in organizational structure there has been no institutional change at the field of noise.

In the organizational structure of nature protection sector, between the years of 1990s and 2010, despite commitments for deep reformation, only minor changes occurred. Some special institutions have been established for special reasons such as care centers or rescue centers; however, the promised extensive change in structuring and staffing of nature protection could not be observed in the course of the years. Although there have been some concrete plans for improvement and cohesion with the EU, they could not turned into be real developments. Therefore, at most attempts of some tertiary changes can be mentioned in the organizational

structure of the nature protection sector. Thus, it is not possible to argue any secondary or institutional change in organizational structure and staffing of nature protection.

In horizontal sector, the organizational structure is partly in line with that of the EU's. Especially, for the practices of EIA, except for some shortcomings of staff in local and central areas, the institutional structure appeared to be changed. Moreover, two new institutions have been built for collecting environmental information and disseminating that information among institutions. However, there is a need for institutional structuring and personnel in accurately implementation of SEA directive. In terms of institutional change in organizational structure of horizontal sector, it can be argued that the changes made are in their way to be a primary change but the remaining shortcomings, especially in implementation of SEA, keep those changes to be counted as institutional change.

The requirement for change and reformation in organizational structure of chemicals and GMOs sector had been ignored in 1990s; however by the beginning of the 2000s Turkey admitted the need of change and development in organizational structure especially for effective implementation of related legislation. Nevertheless, by the year of 2008, there have been almost no advancements in the organizational structure and recruitment in Chemicals and GMOs sector, despite the announcement of strong need for more consistent institutional framework and trained staff. Thus, it can be argued that, in terms of Europeanization and institutional change, even though the conditions were available (i.e. misfit and adaptational pressure), no change had happened in organizational structure of the chemicals and GMOs sector.

As stated by the Law on Turkish Atomic Energy Agency (No: 2690), The Turkish Atomic Energy Agency is carrying on the research, development and training activities while performing it's duty on licensing and auditing devoted to the use of nuclear energy. In 1990s it was reminded that in the Nuclear Safety Convention of IAEA, depending on the establishment of nuclear power plants and increasing use of nuclear technology, it would be possible to reach a legal arrangement to achieve a new institutional structure that will separate the licensing and auditing activities from the research and development activities via revising the Law on Turkish Atomic Energy Agency. However, by the year of 2008 no serious development has occurred in the field of the organizational structure in Nuclear Safety sector. Thus, it can be claimed that no institutional change of any degree have happened.

Legislation forms the backbone of any institution; the rules of the game, the roles of the actors and the general notion of the concerned institution are defined by legislation. Thus, in our case, change in legislation about environment had direct impact on institutional change of environmental policy in Turkey. It was aimed to observe the change in general legislative structure as it created new norms, policies and formal organizations; and reshaped the existing ones. The sectors of; air quality, water quality, waste management, noise, nature protection, horizontal sector, chemicals, genetically modified organisms, nuclear safety and protection from radiation and industrial pollution and risk management are evaluated.

Legislation in the horizontal sector has come in line with the EU legislation in the course of years until 2008. Although, it was stated that the harmonization studies were still progressing, the critical steps for compliance with EU have been taken in horizontal sector. Thus, it can be argued that, an institutional change occurred in legislation of the horizontal sector, since there has been a progress from complete non-compliance to almost full compliance. Furthermore, creating a new legislative area from nothing can be considered as a normative shift in horizontal sector.

The commitments in 1990s and the gaps between Turkish legislation and EU directives on the field of air quality have been achieved in the course of 2000s. Almost all areas and directives mentioned in MEDA project were covered and legislation on air quality became in line with the related EU directives. Thus, legal instruments for air quality issues were prepared by Turkey. Consequently, it can easily be argued that a comprehensive advancement has been realized in the legislation of air quality, so that almost a new legislative area was created; as a result a primary change appeared in the field of air quality legislation.

The legislative gap between Turkey and the EU in the field of waste management has almost been covered. The key directives were transposed into domestic legislation; nevertheless, there are some directives to be transposed after 2008, which indicates despite some shortcomings, a major progress has been achieved in the legislative area of waste management. Thus, it can be argued that a sizeable change happened in the legislation of waste management that is even can be considered as an institutional change.

In the field of water quality there have been numerous EU directives transposed into Turkish legislation, however, deep rooted laws and by laws of Turkish legislation in this sector made it more difficult to get fully harmonized with the EU directives compared to most of the other sectors. If it is recalled, institutional change become more difficult if there is an existing and deep rooted tradition in the institutions, in other words, they depend on their existing path instead of changing the path, which seems true for Turkey in the sector of water quality. Turkey stated that in order to fully adapt to EU directives in water quality sector, it had to be waited until the Turkey's full membership to the EU. Nevertheless, the number of transposed directives indicates a significant change, which can, at least, be considered as a secondary change.

The nature protection sector has also its own roots and traditions in Turkey, which made the sector a difficult area to be transformed as it is suggested by the path dependency principle. Nevertheless, numerous directives have been transposed into Turkish legislation and various Turkish legislation amended in order to comply with the EU. Although, full harmonization could not be provided, a substantial alteration has occurred in the legislation of nature protection sector, which can be named as a strategic change.

Chemicals sector has been one of the weak ones among the other sectors in terms legislative adaptation to the EU directives. Although only one of the EU directives has been transposed fully into the Turkish legislation, various directives only partially transposed and most of the EU directives in this sector have been pending until an uncertain time. Even, for some of the directives Turkey lacks necessary institutions and legal framework to transpose them into domestic legislation. Thus, the amount of change in legislation of chemical sector indicated only a tertiary change which is limited to only one transposed EU directive.

The IEAS, in 2008, informed that in the sub-sector of Genetically Modified Organisms, the harmonization studies with respect to GMO Directives have not yet been conducted. Thus, it can easily be claimed that only very limited progress and compliance could be observed in the legislation of GMOs sector, therefore one cannot talk about any considerable change in this field.

The adaptation process in the legislation of noise sector was quite unproblematic compared the other sectors, since the existing Turkish legislation, which had been also affected by the

EU, was compatible with the EU directives and legislative field of noise was not a deep rooted and traditional one in Turkey, thus open to change. Therefore, it can be said that the legislation of noise sector is a result of EU impact and an institutional change occurred in this area.

Since early 2000s there has been very limited progress in the legislation of nuclear safety. The achievements in this sector were usually products of late 1990s and early 2000s; even so most of the related directives transposed only partially, even some directives simply have not been transposed into the Turkish legislation. In recent years there has been no development for adapting the legislative area of nuclear safety in Turkey to the EU's. Thus, limited and short term advancement happened in the sector of nuclear safety and inertia has being observed in this field in recent years. Therefore, in terms of institutional change, the amount of change, especially in recent years, has been inconsiderable; however, the change happened in past years has carried the degree of change in the legislation of nuclear safety sector to the level of a strategic change.

In the legislation of industrial pollution and risk management sector the compliance between EU directives and Turkish legislation, although some advancements realized, seemed not to be achieved yet. However, a systematic work is being conducted to cover all related areas and transpose almost all necessary EU directives into the Turkish legislation. Thus, in terms of institutional change, it is on its way in the legislation of industrial pollution and risk management sector, however, it has not reached yet. Therefore, it can be argued that only secondary changes occurred in this field.

Finally, for a general assessment, the research question has to be recalled, which is: "Does Europeanization cause any institutional change in domestic structures of a candidate country? In order to answer this question "environmental policy in Turkey" is chosen as the case. So, the main problematic in this dissertation has been "analyzing the change occurred in environmental policy in Turkey as a consequence of Europeanization." The environmental policies in Turkey and the EU have been evaluated as, respectively, the dependent and independent variables of the research. Europeanization and New Institutionalism have been picked up as the analytical tools and a misfit and institutional change analysis in Turkish environmental policy has been conducted based on aforementioned theories. A three dimensional approach has been determined for the final research. Accordingly, the change in

environmental policy traced in the fields of policy making, organizational structure and legislative area. The findings of this research are briefly as follows: according to the three dimensional research on environmental policies, the change in organizational structure has been very limited, even in most sectors there is no change at all. The changes was mostly very symbolic, in the terms of institutional change, they can hardly be called as tertiary or tactical change. In the field of policy forming and making, the change has been more comprehensive compared to organizational structure. In most of the sectors, the degree of change has been at the level of strategic or secondary change even in the industrial pollution sector there has been a primary change. In the legislative area the change has been more remarkable. Except some sectors, such as nuclear safety, in most sectors the change in legislation in order to comply with the EU directives has been notable, even in majority of the sectors the change was at the level of institutional or primary change. The result was not surprising; it is corresponding to EU documents on integration of the environmental policy in Turkey with European Environmental Policy. They, briefly, assert that although Turkey changes its legislation on environment, in the implementation phase Turkey fails to apply these changes in real cases and situations. The reason behind this failure can be found in the findings of this dissertation. Any change made in the legislation or policy can be carried out only through appropriate institutional structure. In other words, it does not matter whether the legislation or policies changed fundamentally, if the instruments, i.e. organizations, which materializes those laws and actions, are not changed enough to comply with the transformation occurred in other fields. The legislation and policy dimensions of environmental policy in Turkey have been changed, even the change occurred in legislative field has been considerable; however, the change in organizational structure and recruitment, i.e. operational dimension, has been very limited. As a result, actualization of the changes made in environmental policy fails. Either deliberately or due to financial reasons, Turkey avoid reform in organizational structures. In order to overcome this problem, fundamental change in the organizational structure of the environmental policy in Turkey has to be bolstered.

Last but not least, there are institutional arrangements made in environmental policy of Turkey, however the content and degree of the arrangements are not enough to be labeled as an institutional change. Consequently, it can be argued that the domestic structures of a candidate country could be changed as a consequence of Europeanization; however the amount of change, according to findings of the dissertation, cannot be considered as a structural change. In other words, the EU may have an impact on a candidate country for

changing its structures; however the effect is not enough to cause an institutional change. Accordingly, being a candidate necessitates countries to make some changes, but for making fundamental changes EU membership is required.

For analytical reasons, this dissertation laid stress on mainly the actions occurred at governmental level. Thus, basically the actions and measures of MoEF and several other environment related government institutions have been at the center of the research. However, the developments in non-governmental area, especially in the field of NGOs are also worth to be analyzed. The process of Europeanization created extra place for environmental NGOs in Turkey. Alongside the international environmental developments, Turkey's integration process with the EU has given concrete bases to the NGOs for struggling and negotiating with the government for environmental reasons. They can push or guide the government for further improvement in environmental conditions by referring Turkey's candidacy to the EU. Moreover, they may found direct or indirect support from EU wide NGOs or they may finance their actions directly from EU funds. Thus, furthering the research towards the European impact on environmental NGOs in Turkey would be a valuable contribution.

Moreover, the opening up of the EU – Turkey negotiations on the Environment chapter would carry the environmental policy in Turkey to a higher stage. Since it was a brand new event in the writing process of this dissertation, there was no enough time to analyze and grasp the consequences of this development. However, especially in terms of institutional change, opening up of the environment chapter would deepen the change in organizational and legislative structure and policy making in environmental issues in Turkey. In order to become a full member of the EU, Turkey must finalize the negotiations and to finalize the negotiations Turkey must to make dramatic changes in environmental policy. Thus, it would not be surprising to observe remarkable advancements in the field of environmental policy in near future. Therefore, a further research about Europeanization of environmental policy in Turkey specifically dealing with official negotiations on environment would add a significant contribution to the literature of Europeanization and Institutional Change.

ANNEX I

MEASURES FOR HARMONISATION WITH THE EU LEGISLATION AND IMPLEMENTATION IN 2003 NPAA

1. LIST

1.1. Improvement of Water Quality

Task 1.1.1 Discharge of Dangerous Substances into Aquatic Environments

Task 1.1.2 Water Pollution Caused by Nitrates from Agricultural Sources

Task 1.1.3 Water Framework Directive

Task 1.1.4 Treatment Plant Sludge

Task 1.1.5 Urban Wastewater Treatment

Task 1.1.6 Quality of Water for Human Consumption

Task 1.1.7 Quality of Surface Water and Ground Water

1.2. Increase Effectiveness of Waste Management

Task 1.2.1 Integrated Waste Management

Task 1.2.2 Hazardous Waste Management

Task 1.2.3 Specific Waste Management

1.3. Improving Air Quality

1.4. Nature Conservation

1.5. Industrial Pollution and Risk Management

1.6. Increasing Strength and Effectiveness of Environmental Impact Assessment Process and Aligning with Strategic Environmental Assessment Directive

1.7. Environmental Noise Management

1.8. Management of Chemicals

Task 1.8.1 Chemicals

Task 1.8.2 Pesticides

1.9. Genetically Modified Organisms

1.10. Nuclear Safety

1.1 Improvement of Water Quality

Task 1.1.1 Discharge of Dangerous Substances into Aquatic Environments

Schedule of Necessary Legislative Changes

Table 1.1.1.1

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution ^{a)}	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
1	Council Directive 76/464/EEC of 4 May 1976 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community	Revision of the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter
		Revision of the Communiqué on Dangerous and Hazardous Substances related to the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter
		Revision of the Implementing Regulation on Water Products	Ministry of Agriculture and Rural Affairs	30.06.2004	2- 15.07.2005
2	Council Directive 86/280/EEC of 12 June 1986 on limit values and quality objectives for discharges of certain dangerous substances included in List I of the Annex to Directive 76/464/EEC	Revision of the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter
		Revision of the Communiqué on Dangerous and Hazardous Substances related to the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter

		Revision of the Implementing Regulation on Water Products	Ministry of Agriculture and Rural Affairs	30.06.2004	2- 15.07.2005
3	Council Directive 88/347/EEC of 16 June 1988 amending Annex II to Directive 86/280/EEC on limit values and quality objectives for discharges of certain dangerous substances included in List I of the Annex to Directive 76/464/EEC	Revision of the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter
		Revision of the Communiqué on Dangerous and Hazardous Substances related to the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter

Table 1.1.1.1 (Continued)

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution ^{a)}	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
4	Council Directive 90/415/EEC of 27 July 1990 amending Annex II to Directive 86/280/EEC on limit values and quality objectives for discharges of certain dangerous substances included in list I of the Annex to Directive 76/464/EEC	Revision of the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter
		Revision of the Communiqué on Dangerous and Hazardous Substances related to the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter
		Revision of the Implementing Regulation on Water Products	Ministry of Agriculture and Rural Affairs	30.06.2004	2- 15.07.2005
5	Council Directive 84/491/EEC of 9 October 1984 on limit values and quality objectives for discharges of hexachlorocyclohexane	Revision of the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter
		Revision of the Communiqué on Dangerous and Hazardous Substances related to the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter
6	Council Directive 83/513/EEC of 26 September 1983 on limit values and	Revision of the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter

	quality objectives for cadmium discharges	Revision of the Communiqué on Dangerous and Hazardous Substances related to the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter
		Revision of the Implementing Regulation on Water Products	Ministry of Agriculture and Rural Affairs	30.06.2004	2- 15.07.2005
7	Council Directive 84/156/EEC of 8 March 1984 on limit values and quality objectives for mercury discharges by sectors other than the chlor-alkali electrolysis industry	Revision of the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter
		Revision of the Communiqué on Dangerous and Hazardous Substances related to the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter
		Revision of the Implementing Regulation on Water Products	Ministry of Agriculture and Rural Affairs	30.06.2004	2- 15.07.2005

Table 1.1.1.1 (Continued)

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution ^{a)}	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
8	Council Directive 82/176/EEC of 1 March 1982 on limit values and quality objectives for mercury discharges by the chlor-alkali electrolysis industry	Revision of the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter
		Revision of the Communiqué on Dangerous and Hazardous Substances related to the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter
		Revision of the Implementing Regulation on Water Products	Ministry of Agriculture and Rural Affairs	30.06.2004	2- 15.07.2005

^{a)} The Ministry of Health will contribute to the studies.

Schedule of Necessary Institutional Changes

Table 1.1.1.2

No	Necessary Institutional Changes – (Ministry of Environment and Forestry)	Period of Implementation
1	Strengthening of the current institutional structure	2004-2006
2	Recruitment of staff	2004-2006
3	Training of personnel	2004-2006
4	Identification of the equipment requirements of the laboratories required for water pollution analysis, and strengthening of the infrastructure	2004-2006

Table 1.1.1.3

No	Necessary Institutional Changes - (Ministry of Agriculture and Rural Affairs)	Period of Implementation
1	Identification of the equipment requirements of the laboratories required for water pollution analysis, and strengthening of the infrastructure	2004-2006
2	Personnel support to the Provincial Directorates	2004-2006
3	Training of the Provincial Directorates' personnel	2004-2006

Financing Requirements and Sources of Financing

**Table 1.1.1.4
(Euro)**

Requirements - (Ministry of Environment and Forestry)	Year	National Budget	EU Resources	Other	Total
I-Investment ^{a)}					
II- Harmonisation with the EU legislation and Implementation	2004-2006		(1)		
Personnel	2004-2006	160,000			160,000
Training	2004-2006		(2)		
Consultancy	2004-2006		(3)		
Translation	2004-2006	5,000	10,000		15,000

**Table 1.1.1.4 (Continued)
(Euro)**

Requirements - (Ministry of Environment and Forestry)	Year	National Budget	EU Resources	Other	Total
Other			(1)+(2)+(3)=1,500,000 ^{b)}		1,500,000
Total		165,000	1,510,000		1,675,000

a) The investment requirement will be determined once the Project on Integrated Environmental Harmonisation Strategy (2002-31739) is finalised. In addition, studies on priority environmental projects for accession and supporting the development of an efficient financial mechanism for financing EU environmental heavy-cost directives will be carried out in the context of the environmental heavy cost investments component of the Capacity Development in The Field Of Environment Project (TR-362.03) under the 2002 Pre-accession Financial Assistance Programme.

b) A project will be submitted to the Pre-accession Financial Assistance Programme with the contribution of the related institutions.

Table 1.1.1.5
(Euro)

Requirements - (Ministry of Agriculture and Rural Affairs)	Year	National Budget	EU Resources	Other	Total
I-Investment ^{a)}					
II- Harmonisation with the EU legislation and Implementation			(1)		
Personnel	2004-2006	160,000			160,000
Training	2004-2006		(2)		
Consultancy	2004-2006		(3)		
Translation	2004-2006	5,000	10,000		15,000
Other			(1)+(2)+(3)= 1,500,000 ^{b)}		1,500,000
Total		165,000	1,510,000		1,575,000

a) The investment requirement will be determined once the Project on Integrated Environmental Harmonisation Strategy (2002-31739) is finalised. In addition, studies on priority environmental projects for accession and supporting the development of an efficient financial mechanism for financing EU environmental heavy-cost directives will be carried out in the context of the environmental heavy cost investments component of the Capacity Development in The Field Of Environment Project (TR-362.03) under the 2002 Pre-accession Financial Assistance Programme.

b) A project will be submitted to the Pre-accession Financial Assistance Programme with the contribution of the related institutions.

Task 1.1.2 Water Pollution Caused by Nitrates from Agricultural Sources

Schedule of Necessary Legislative Changes

Table 1.1.2.1

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
1	Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources	Implementing Regulation on the Protection of Waters against Pollution Caused by Nitrates from Agricultural Sources	Ministry of Agriculture and Rural Affairs (will publish the Implementing Regulation) Ministry of Environment and Forestry (will be involved in the implementation)	2003, IV. Quarter	2- 2005, IV. Quarter

^{a)} As the implementation of the legislation under this priority requires heavy investment for both the public and private sector, it is deemed necessary to make infrastructure investment and to strengthen technical capacity. Therefore, the context in which it will be implemented will be determined during legislation preparation.

Schedule of Necessary Institutional Changes

Table 1.1.2.2

No	Necessary Institutional Changes - (Ministry of Environment and Forestry)	Period of Implementation
1	Strengthening the current institutional structure	2004-2006
2	Training of personnel via training of trainers	2004-2006

Table 1.1.2.3

No	Necessary Institutional Changes - (Ministry of Agriculture and Rural Affairs)	Period of Implementation
1	Strengthening the infrastructure of the laboratories in the field of nitrate contamination analysis	2004-2006
2	Establish principles of Good Agricultural Practices	2003-2006

3	Training of the Provincial Directorate personnel (first training of the trainers, and then training of all the Provincial Directorate personnel)	2004-2006
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Financing Requirements and Sources of Financing

**Table 1.1.2.4
(Euro)**

Requirements-(Ministry of Environment and Forestry)	Year	National Budget	EU Resources	Other	Total
I-Investment ^{a)}	2004 - 2024				
II- Harmonisation with the EU legislation and Implementation					
Personnel					
Training	2004-2006	5,000	50,000		55,000
Consultancy	2004-2006		200,000		200,000
Translation	2004-2006	5,000	10,000		15,000
Other					
Total		10,000	260,000		270,000

^{a)} The investment requirement will be determined once the Project on Integrated Environmental Harmonisation Strategy (2002-31739) is finalised. In addition, studies on priority environmental projects for accession and supporting the development of an efficient financial mechanism for financing EU environmental heavy-cost directives will be carried out in the context of the environmental heavy cost investments component of the Project on Capacity Development in The Field Of Environment (TR-362.03) under the 2002 Pre-accession Financial Assistance Programme.

**Table 1.1.2.5
(Euro)**

Requirements - (Ministry of Agriculture and Rural Affairs)	Year	National Budget	EU Resources	Other	Total
I-Investment ^{a)}					

II- Harmonisation with the EU legislation and Implementation					
Personnel					
Training	2004-2006	5,000	30,000		35,000
Consultancy	2004-2006		200,000		200,000

**Table 1.1.2.5 (Continued)
(Euro)**

Requirements - (Ministry of Agriculture and Rural Affairs)	Year	National Budget	EU Resources	Other	Total
Translation	2004-2005		10,000		10,000
Other	2004-2006		100,000		100,000
Total		5,000	340,000		345,000

^{a)} The investment requirement will be determined once the Project on Integrated Environmental Harmonisation Strategy (2002-31739) is finalised. In addition, studies on priority environmental projects for accession and supporting the development of an efficient financial mechanism for financing EU environmental heavy-cost directives will be carried out in the context of the environmental heavy cost investments component of the Capacity Development in The Field Of Environment (TR-362.03) Project under the 2002 Pre-accession Financial Assistance Programme.

Task 1.1.3 Water Framework Directive

Schedule of Necessary Legislative Changes

Table 1.1.3.1

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
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1	Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy	Drafting legislation complying the provisions of the Framework Environment Directive	Ministry of Environment and Forestry Ministry of Agriculture and Rural Affairs Directorate General for State Hydraulic Works	2005, IV. Quarter	a)
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a) As the implementation of the legislation under this priority requires heavy investment for both the public and private sector, it is deemed necessary to make infrastructure investments and to strengthen technical capacity. Therefore, the date of entry into force will be determined during legislation preparation.

Schedule of Necessary Institutional Changes

Table 1.1.3.2

No	Necessary Institutional Changes (Ministry of Environment and Forestry)	Period of Implementation
1	Strengthening of the current institutional structure (office, laboratory)	2003-2005
2	Recruitment of technical and administrative personnel	2004-2006
3	Training of personnel	2003-2005

Table 1.1.3.3

No	Necessary Institutional Changes (Ministry of Agriculture and Rural Affairs)	Period of Implementation
1	Strengthening of the infrastructure of the laboratories for water pollution analysis	2003-2005
2	Training of the Provincial Directorate technical personnel	2003-2005

Financing Requirements and Sources of Financing

Table1.1.3.4
(Euro)

Requirements - (Ministry of Environment and Forestry)	Year	National Budget	EU Resources	Other	Total
I-Investment ^{a)}					
II- Harmonisation with the EU legislation and Implementation	2004-2006		(1)		
Personnel	2004-2006	160,000			160,000
Training	2003-2006		(2)		
Consultancy	2003-2006		(3)		
Translation	2003-2005	5,000	(4)		5,000

Table1.1.3.4 (Continued)
(Euro)

Requirements - (Ministry of Environment and Forestry)	Year	National Budget	EU Resources	Other	Total
Other Programming of Pre-accession Financial Assistance ^{b)}	2005-2006		a-(1)+(2)+(3)+(4)= 1,500,000		1,500,000
Total		165,000	1,500,000		1,665,000

^{a)} The investment requirement will be determined once the Project on Integrated Environmental Harmonisation Strategy (2002-31739) is finalised. In addition, studies on priority environmental projects for accession and supporting the development of an efficient financial mechanism for financing EU environmental heavy-cost directives will be carried out in the context of the environmental heavy cost investments component of the Capacity Development in The Field Of Environment (TR-362.03) Project under the 2002 Pre-accession Financial Assistance Programme.

^{b)} A project on the implementation of the Water Framework Directive, will be submitted to the Pre-accession Financial Assistance Programme with the contribution of the related institutions.

Table 1.1.3.5

Requirements - (Ministry of Agriculture and Rural Affairs)	Year	National Budget	EU Resources	Other	Total
I-Investment ^{a)}					
II- Harmonisation with the EU legislation and Implementation					
Personnel					
Training	2004-2006	5,000	50,000		55,000
Consultancy	2004-2006		200,000		200,000
Translation	2004-2006	5,000			5,000
Other	2004-2006		100,000		100,000
Total		10,000	350,000		360,000

^{a)} The investment requirement will be determined once the Project on Integrated Environmental Harmonisation Strategy (2002-31739) is finalised. In addition, studies on priority environmental projects for accession and supporting the development of an efficient financial mechanism for financing EU environmental heavy-cost directives will be carried out in the context of the environmental heavy cost investments component of the Capacity Development in The Field Of Environment (TR-362.03) Project under the 2002 Pre-accession Financial Assistance Programme

Task 1.1.4 Treatment Plant Sludge

Schedule of Necessary Legislative Changes

Table 1.1.4.1

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution ^{a)}	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament

					2- Entry into force
1	Council Directive 86/278/EEC of 12 June 1986 on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture	Revision of the Implementing Regulation on the Control of Soil Pollution	Ministry of Environment and Forestry	2004, I. Quarter	2- 2004, I. Quarter

a) The Ministry of Health will contribute to the studies.

b) As the implementation of the legislation under this priority requires heavy investment for both the public and private sector, it is deemed necessary to make infrastructural investments and to strengthen technical capacity. Therefore, the context in which it will be implemented will be determined during legislation preparation.

Schedule of Necessary Institutional Changes

Institutional changes are not foreseen at this stage for this priority.

Financing Requirements and Sources of Financing

Financing requirements are not foreseen at this stage for this priority. The investment requirement will be determined once the Project on Integrated Environmental Harmonisation Strategy (2002-31739) is finalised.

Task 1.1.5 Urban Wastewater Treatment

Schedule of Necessary Legislative Changes

Table 1.1.5.1

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force ^{a)}
1	Council Directive 91/271/EEC of 21 May 1991 concerning urban wastewater treatment	Revision of the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry ^{b)}	2005, IV. Quarter	2- 2005, IV. Quarter

a) As the implementation of the legislation under this priority requires heavy investment for both the public and private sector, it is deemed necessary to make infrastructure investment and to strengthen technical capacity. Therefore, the context in which it will be implemented will be determined during legislation preparation.

b) Institutions responsible for implementation; metropolitan municipalities, municipalities, Bank of Provinces, General Directorate of Rural Affairs.

Schedule of Necessary Institutional Changes

Table 1.1.5.2

No	Necessary Institutional Changes - (Ministry of Environment and Forestry)	Period of Implementation
1	Strengthening of the current institutional structure and infrastructure (vehicles, offices, laboratories etc.)	2004-2006
2	Recruitment of personnel	2004-2006
3	Training of personnel	2004-2006

Financing Requirements and Sources of Financing

**Table 1.1.5.3
(Euro)**

Requirements - (Ministry of Environment and Forestry)	Year	National Budget	EU Resources	Other	Total
I-Investment ^{a)}					
II- Harmonisation with the EU legislation and Implementation					
Personnel	2004-2006	160,000			160,000

**Table 1.1.5.3 (Continued)
(Euro)**

Requirements - (Ministry of Environment and Forestry)	Year	National Budget	EU Resources	Other	Total
Training	2004-2006	5,000	50,000		55,000

Consultancy	2004-2006		200,000		200,000
Translation	2004-2006	5,000	10,000		15,000
Other					
Total		170,000	260,000		430,000

^{a)} The investment requirement will be determined once the Project on Integrated Environmental Harmonisation Strategy (2002-31739) is finalised. In addition, studies on priority environmental projects for accession and supporting the development of an efficient financial mechanism for financing EU environmental heavy-cost directives will be carried out in the context of the environmental heavy cost investments component of the Capacity Development in The Field Of Environment (TR-362.03) Project under the 2002 Pre-accession Financial Assistance Programme.

Task 1.1.6 Quality of Water Intended for Human Consumption

Schedule of Necessary Legislative Changes

Table 1.1.6.1

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
1	Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption	Implementing Regulation on Bottled Water and Water for Human Consumption	Ministry of Health	2004, IV. Quarter	2- 2004, IV. Quarter

Table 1.1.6.1 (Continued)

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
2	Council Directive 79/869/EEC of 9 October 1979 concerning the methods	Revision of the Communiqué on Sampling and Analysis Methods	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter

	of measurement and frequencies of sampling and analysis of surface water intended for the abstraction of drinking water in the Member States	related to the Implementing Regulation on Water Pollution Control			
3	Council Directive 75/440/EEC of 16 June 1975 concerning the quality required of surface water intended for the abstraction of drinking water in the Member States	Revision of the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry	2005, IV. Quarter	2. 2005, IV. Quarter

Schedule of Necessary Institutional Changes

Table 1.1.6.2

No	Necessary Institutional Changes - (Ministry of Health)	Period of Implementation
1	Training of the personnel of the Ministry of Health central office staff, the staff of the Refik Saydam Hygiene Centre (RSHM), and the Provincial Health Directorates, who will be involved in the field of the quality of water for human consumption, on the legislation and its implementation	2004-2006
2	Elimination of technical deficiencies of the Refik Saydam Hygiene Centre and Health Laboratory and strengthening its technical structure	2004-2006
3	Providing technical assistance and training from an accredited laboratory of a Member State to the Refik Saydam Hygiene Centre and Public Health Laboratory on the quality of water for human consumption.	2004-2006
4	Establishing a data network for communication and information exchange.	2004-2006
5	Providing coordination and cooperation with other authorities dealing with water for human consumption.	2004-2006
6	Identification of the risk points related to the quality of water for human consumption and making efforts for the improvement of water quality	2004-2006

Table 1.1.6.2 (Continued)

No	Necessary Institutional Changes - (Ministry of Health)	Period of Implementation
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7	Training of the producers and consumers	2004-2006
8	Development and implementation of a national protocol on the sampling and analysis of water for human consumption	2004-2006
9	Development and implementation of national intervention strategy against threats to the waters for human consumption	2004-2006

Financing Requirements and Sources of Financing

Table 1.1.6.3
(Euro)

Requirements - (Ministry of Health)	Year	National Budget	EU Resources	Other	Total
I- Investment ^{a)}					
Programming of Pre-accession Financial Assistance ^{b)}	2005-2006	1,400,000	3,120,000		4,520,000
II- Harmonisation with the EU legislation and Implementation			(1)		
Personnel	2004-2006	160,000			160,000
Training	2004-2006		(2)		
Consultancy	2004-2006		(3)		
Translation	2004-2006	5,000	10 000		15,000
Other			(1)+(2)+(3)= 2,000,000 ^{c)}		2,000,000
Total		1,565,000	5,130,000		6,695,000

^{a)} The investment requirement will be determined once the Project on Integrated Environmental Harmonisation Strategy (2002-31739) is finalised. In addition, studies on priority environmental projects for accession and supporting the development of an efficient financial mechanism for financing EU environmental heavy-cost directives will be carried out in the context of environmental heavy cost investments component of the Capacity Development in The Field Of Environment (TR-362.03) Project under the 2002 Pre-accession Financial Assistance Programme.

^{b)} Total investment amount of Water Quality Project to be proposed to the 2004 Pre-accession Financial Assistance Programme .

^{c)} Technical assistance amount of Water Quality Project to be proposed to 2004 Pre-accession Financial Assistance Programme.

Task 1.1.7 Quality of Surface Water and Ground Water

Schedule of Necessary Legislative Changes

Table 1.1.7.1

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
1	Council Directive 76/160/EEC of 8 December 1975 concerning the quality of bathing water	Revision of the Implementing Regulation on Water Pollution Control	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter
		Communiqué on Bathing Water Quality	Ministry of Health	2005, IV. Quarter	2- 2005, IV. Quarter
2	Council Directive 79/923/EEC of 30 October 1979 on the quality required of shellfish waters	Circular	Ministry of Agriculture and Rural Affairs	2005, IV. Quarter	2- 2005, IV. Quarter
3	Council Directive 78/659/EEC of 18 July 1978 on the quality of fresh waters needing protection or improvement in order to support fish life	Implementing Regulation on Fisheries and Aquacultural Products	Ministry of Agriculture and Rural Affairs	30.06.2004	2- 15.07.2005
4	Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution caused by certain dangerous substances	Revision of the Communiqué on Dangerous and Hazardous Substances in Water	Ministry of Environment and Forestry ^{a)}	2005, IV. Quarter	2- 2005, IV. Quarter

^{a)} The Directorate General for State Hydraulic Works is the authority responsible for the consumption and protection of ground water according to the Law on Ground Water No. 167 and the Law on the Organization and Functions of the Directorate General for State Hydraulic Works.

Schedule of Necessary Institutional Changes

Table 1.1.7.2

No	Necessary Institutional Changes - (Ministry of Agriculture and Rural Affairs)	Period of Implementation
1	Strengthening of the infrastructure of the laboratories in the field of water pollution	2004-2006
2	Training of the Provincial Directorates technical personnel	2004-2006

Table 1.1.7.3

No.	Necessary Institutional Changes - (Ministry of Health)	Period of Implementation
1	Training of the personnel of the Ministry of Health central office staff, the staff of the Refik Saydam Hygiene Centre (RSHM), and Provincial Health Directorates, who will be involved in the field of the quality of bathing water and public health, on the legislation and its implementation	2004-2006
2	Strengthening of the infrastructure of laboratories in order to render the analysis of the parameters that will be incorporated to the legislation drafted according to the EU Directives.	2004-2006
3	Providing technical assistance and training to the staff of the Refik Saydam Centre of Hygiene and Public Health Laboratory from an accredited laboratory of a Member State on the quality of bathing water	2004-2006
4	Establishing a data network for communication and information exchange	2004-2006
5	Providing coordination and cooperation with other authorities dealing with bathing water	2004-2006
6	Determine according to which criteria sampling and monitoring points of bathing water quality to be identified	2004-2006
7	Publishing a national guide in compliance with the EU norms on sampling methods and training of the personnel involved in sampling and analysis in the field of water quality	2004-2006
8	Development of a national intervention strategy against threats to public health from bathing water	2004-2006

Financing Requirements and Sources of Financing

Table 1.1.7.4
(Euro)

Requirements - (Ministry of Agriculture and Rural Affairs)	Year	National Budget	EU Resources	Other	Total
I-Investment					
II- Harmonisation with the EU legislation and Implementation					
Personnel					
Training	2004-2006	5.000	50.000		55.000
Consultancy	2004-2006		200.000		200.000
Translation	2004-2006	5.000	10.000		15.000
Other			80.000		80.000
Total		10.000	340.000		350.000

Table 1.1.7.5
(Euro)

Requirements - (Ministry of Health) ^{a)}	Year	National Budget	EU Resources	Other	Total
I-Investment^{b)}					
II- Harmonisation with the EU legislation and Implementation					
Personnel	2004-2006	160,000			160,000
Training					
Consultancy					
Translation	2004-2006	5,000	5,000		10,000

Other					
Total		165,000	5,000		170,000

a) Water Quality Project prepared for proposal to the 2004 Pre-accession Financial Assistance Programme includes Directive 76/160/EEC on bathing water. Information related to this project was previously given in Table 1.1.6.3

b) The investment requirement will be determined once the Project on Integrated Environmental Harmonisation Strategy (2002-31739) is finalised. In addition, studies on priority environmental projects for accession and supporting the development of an efficient financial mechanism for financing EU environmental heavy-cost directives will be carried out in the context of the environmental heavy cost investments component of the Capacity Development in The Field Of Environment (TR-362.03) Project under the 2002 Pre-accession Financial Assistance Programme.

1.2 Increase Effectiveness of Waste Management

Task 1.2.1 Integrated Waste Management

Schedule of Necessary Legislative Changes

Table 1.2.1.1

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force ^{a)}
1	Council Directive 75/442/EEC of 15 July 1975 on waste	Implementing Framework Regulation on Waste	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter
2	2000/532/EC: Commission Decision of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste (notified under document number C(2000) 1147)	Annex to the Implementing Framework Regulation on Waste	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter

Table 1.2.1.1 (Continued)

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament
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					2- Entry into force ^{a)}
3	Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste ^{b)}	Implementing Regulation on Incineration of Waste	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter
4	Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste	Implementing Regulation on Landfill of Waste	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter
5	Council Regulation (EEC) No 259/93 of 1 February 1993 on the supervision and control of shipments of waste within, into and out of the European Community	Implementing Regulation on the Shipment of Waste ^{c)}	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter

^{a)} As the implementation of the legislation under this priority requires heavy investment for both the public and private sector, it is deemed necessary to make infrastructural investment and to strengthen technical capacity. Therefore, the context in which it will be implemented will be determined during legislation preparation.

^{b)} repealing Directives 89/369/EEC, 89/429/EEC and 94/67/EEC.

^{c)}Decisions 94/774/EC, 1547/1999/EC are going to be taken into account during preparation of the Draft Regulation

Schedule of Necessary Institutional Changes

Table 1.2.1.2

No	Necessary Institutional Changes - (Ministry of Environment and Forestry)	Period of Implementation
1	Financial strengthening of the local authorities (municipalities)	From 2004 onwards (continuously)
2	Technical strengthening of the local authorities (municipalities)	From 2004 onwards (continuously)
3	Establishment of a unit responsible from integrated waste management and training of its personnel	From 2004 onwards (continuously)
4	Establishment of a network for access to information regarding waste amount, waste quantity, interim storage, disposal etc.	From 2004 onwards (continuously)
5	Establishing separate collection systems for waste minimisation and strengthening of recycling system	2004- 2006
6	Strengthening the infrastructure of the licensing system of the waste recovery and disposal facilities, recruitment of personnel and training of the personnel via training of trainers	2004-2006

Financing Requirements and Sources of Financing

Table 1.2.1.3
(Euro)

Requirements - (Ministry of Environment and Forestry)	Year	National Budget	EU Resources	Other	Total
I-Investment ^{a)}					
II- Harmonisation with the EU legislation and Implementation	2004-2006		(1)		
Personnel	2004-2006	160,000			160,000
Training	2004-2006	5,000	(2)+50,000 ^{b)}		55,000
Consultancy	2004-2006		(3)+200,000 ^{c)}		200,000
Translation	2004-2006	5,000	10,000		15,000
Other	2004-2006		(1)+(2)+(3) = 1 400 000 ^{d)}		1,400,000
Total		170,000	1,660,000		1,830,000

^{a)} The investment requirement will be determined once the Project on Integrated Environmental Harmonisation Strategy (2002-31739) is finalised. In addition, studies on priority environmental projects for accession and supporting the development of an efficient financial mechanism for financing EU environmental heavy-cost directives will be carried out in the context of the environmental heavy cost investments component of the Capacity Development in The Field Of Environment (TR-362.03) Project under the 2002 Pre-accession Financial Assistance Programme.

^{b)} Amount required for the activities related to EU legislation which is not covered by the project (TR-0302.03) proposed to 2003 Programming of Pre-accession Financial Assistance.

^{c)} Amount required for the activities related to EU legislation which is not covered by the project (TR-0302.03) proposed to 2003 Programming of Pre-accession Financial Assistance.

^{d)} Twinning amount of the Project (TR-302.03) waste component proposed to 2003 Programming of Pre-accession Financial Assistance.

Task 1.2.2 Hazardous Waste Management

Schedule of Necessary Legislative Changes

Table 1.2.2.1

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force ^{a)}
1	Council Directive 91/689/EEC of 12 December 1991 on hazardous waste	Revision of the Implementing Regulation on Hazardous Waste	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter

^{a)} As the implementation of the legislation under this priority requires heavy investment for both the public and private sector, it is deemed necessary to make infrastructure investment and to strengthen technical capacity. Therefore, the context in which it will be implemented will be determined during legislation preparation.

Schedule of Necessary Institutional Changes

Table 1.2.2.2

No	Necessary Institutional Changes - (Ministry of Environment and Forestry)	Period of Implementation
1	Strengthening the hazardous waste inventory system and establishing a network for technology transfer	2004-2006
2	Strengthening the infrastructure of the licensing system of the waste recovery and disposal facilities, recruitment and training of personnel	2004-2006
3	Training of the central and provincial office personnel and personnel of the local authorities (municipalities)	2004-2006
4	Training of industrialists	2004-2006

Financing Requirements and Sources of Financing

**Table 1.2.2.3
(Euro)**

Requirements - (Ministry of Environment and Forestry)	Year	National Budget	EU Resources	Other	Total
I-Investment ^{a)}					
II- Harmonisation with the EU legislation and Implementation ^{b)}					
Personnel	2004-2006	160,000			160,000

**Table 1.2.2.3 (Continued)
(Euro)**

Requirements - (Ministry of Environment and Forestry)	Year	National Budget	EU Resources	Other	Total
Training	2004-2006	5,000	50,000 ^{c)}		55,000
Consultancy	2004-2006		200,000 ^{c)}		200,000
Translation	2004-2006	5,000	10,000		15,000
Other					
Total		170,000	260,000		430,000

^{a)} The investment requirement will be determined once the Project on Integrated Environmental Harmonisation Strategy (2002-31739) is finalised. In addition, studies on priority environmental projects for accession and supporting the development of an efficient financial mechanism for financing EU environmental heavy-cost directives will be carried out in the context of the environmental heavy cost investments component of the Capacity Development in The Field Of Environment (TR-362.03) Project under the 2002 Pre-accession Financial Assistance Programme.

^{b)} The information regarding the waste management component of the Twinning Project TR-302.03 proposed to the 2003 Pre-accession Financial Assistance Programme was previously given in Table 1.2.1.3.

^{c)} Amount required for the activities related to EU legislation which is not included in the project (TR-0302.03) proposed to the 2003 Pre-accession Financial Assistance Programme.

Task 1.2.3 Specific Waste Management

Schedule of Necessary Legislative Changes

Table 1.2.3.1

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force ^{a)}
1	European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste	Implementing Regulation on Packaging and Packaging Waste Control ^{b)}	Ministry of Environment and Forestry	2003, IV. Quarter	2- 2004, II Quarter

Table 1.2.3.1 (Continued)

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force ^{a)}
2	Council Directive 75/439/EEC of 16 June 1975 on the disposal of waste oils (Council Directive 87/101/EEC of 1 December 1986 amending Directive 75/439/EEC on the disposal of waste oils)	Implementing Regulation on Waste Oils	Ministry of Environment and Forestry	2004, II. Quarter	2- 2004, II. Quarter
3	Council Directive 96/59/EC of 16 September 1996 on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT)	Communiqué on PCB and PCT Waste Management	Ministry of Environment and Forestry	2005, IV. Quarter	2- 2005, IV. Quarter
4	Council Directive 91/157/EEC of 18 March 1991 on batteries and accumulators containing certain dangerous substances (will be evaluated together with the Directive 98/101/EC)	Implementing Regulation on the Control of Spent Batteries and Accumulators	Ministry of Environment and Forestry	2004, II. Quarter	2- 2004, II. Quarter
5	Commission Directive 93/86/EEC of 4 October 1993 adapting to technical progress Council Directive 91/157/EEC on batteries and accumulators containing	Implementing Regulation on the Control of Spent Batteries and	Ministry of Environment and Forestry	2004, II. Quarter	2- 2004, II. Quarter

	certain dangerous substances	Accumulators			
6	Directive 2000/53/EC of the European Parliament and of the Council of 18 September 2000 on end-of life vehicles - Commission Statements	Implementing Regulation on the Control and Management of End-of-Life Vehicles	Ministry of Environment and Forestry Ministry of Industry and Trade ^{c)}	2005, IV. Quarter	2. 2005, IV. Quarter

^{a)} As the implementation of the legislation under this priority requires heavy investment for both the public and private sector, it is deemed necessary to make infrastructure investment and to strengthen technical capacity. Therefore, the context in which it will be implemented will be determined during legislation preparation.

^{b)} Decisions 99/652/EC, 97/129/EC, 2001/171/EC, 97/138/EC, 99/177/EC, 99/42/EC and 99/823/EC will be taken into consideration during preparation of draft regulations.

^{c)} The Ministry of Industry and Trade will contribute to the studies.

Schedule of Necessary Institutional Changes

Table 1.2.3.2

No	Necessary Institutional Changes - (Ministry of Environment and Forestry)	Period of Implementation
1	Establishment of separate collection systems for packaging waste	From 2004 onwards (Continuously)

Table 1.2.3.2 (Continued)

No	Necessary Institutional Changes - (Ministry of Environment and Forestry)	Period of Implementation
2	Financial strengthening of local authorities (municipalities)	From 2004 onwards (Continuously)
3	Technical strengthening of local authorities (municipalities)	From 2004 onwards (Continuously)
4	Recruitment and training of personnel	2004-2006
5	Strengthening the special waste inventory system and establishing a network for technology transfer	2004-2006
6	Strengthening the infrastructure of the licensing system for specific waste recovery and disposal facilities and training of staff on this issue	2004-2006

Financing Requirements and Sources of Financing

Table 1.2.3.3
(Euro)

Requirements - (Ministry of Environment and Forestry)	Year	National Budget	EU Resources	Other	Total
I-Investment ^{a)}					
II- Harmonisation with the EU legislation and Implementation ^{b)}					
Personnel	2004-2006	160,000			160,000
Training	2004-2006	5,000	50,000 ^{c)}		55,000
Consultancy	2004-2006		200,000 ^{c)}		200,000
Translation	2004-2006	5,000	10,000		15,000
Other					
Total		170,000	260,000		430,000

^{a)} The investment requirement will be determined once the Project on Integrated Environmental Harmonisation Strategy (2002-31739) is finalised. In addition, studies on priority environmental projects for accession and supporting the development of an efficient financial mechanism for financing EU environmental heavy-cost directives will be carried out in the context of the environmental heavy cost investments component of the Capacity Development in The Field Of Environment (TR-362.03) Project under the 2002 Pre-accession Financial Assistance Programme.

^{b)} The information regarding Project (TR-302.03) proposed to the 2003 Pre-accession Financial Assistance Programme was previously given in Table 1.2.1.3.

^{c)} Amount required for the activities related to EU legislation which is not included in the project (TR-0302.03) proposed to the 2003 Pre-accession Financial Assistance Programme.

1.3 Improving Air Quality

Schedule of Necessary Legislative Changes

Table 1.3.1

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution ^{a)}	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
1	Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management	Implementing Regulation	Ministry of Environment and Forestry	2005, IV. Quarter	b)
2	Council Directive 1999/30/EC of 1 April 1999 relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air (was amended by Directive 2001/744/EC) ^{c)}	Implementing Regulation	Ministry of Environment and Forestry	For preparation of the legislation 2005, IV. Quarter	b)
3	Directive 2002/3/EC of the European Parliament and of the Council of 12 February 2002 relating to ozone in ambient air	Implementing Regulation	Ministry of Environment and Forestry	For preparation of the legislation 2005, IV. Quarter	b)

Table 1.3.1 (Continued)

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution ^{a)}	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
4	Directive 2000/69/EC of the European Parliament and of the Council of 16 November 2000 relating to limit values for benzene and carbon monoxide in ambient air	Implementing Regulation	Ministry of Environment and Forestry	For preparation of the legislation 2005, IV. Quarter	b)
5	Council Directive 1999/32/EC of 26 April 1999 relating to a reduction in the sulphur content of certain liquid fuels and amending Directive 93/12/EEC	Secondary legislation	Ministry of Environment and Forestry		d)
6	Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and	Implementing Regulation	Ministry of Environment and		d)

	diesel fuels and amending Council Directive 93/12/EEC		Forestry		
7	Directive 1999/94/EC of the European Parliament and of the Council of 13 December 1999 relating to the availability of consumer information on fuel economy and CO ₂ emissions in respect of the marketing of new passenger cars	Communiqué to inform the consumers on fuel economy and CO ₂ emissions of new passenger cars	Ministry of Industry and Trade	2003, II. Quarter	2- 2007, I. Quarter ^{d)}

^{a)} The Ministry of Health will contribute to the studies.

^{b)} As the implementation of the legislation under this priority requires heavy investment for both the public and private sector, it is deemed necessary to make infrastructural investment and to strengthen technical capacity. Therefore, the implementation date will be determined during legislation preparation.

^{c)} It will be taken into account together with the Directives 80/779/EEC, 82/884/EEC, 85/203/EEC concerning limits.

^{d)} The attainment of the limits within the scope of this Directive depends on investment by the Turkish Petroleum Refineries Corporation (TÜPRAŞ). The preparation of the necessary legislation will be dealt with in parallel to the progress regarding the investments and/or the implementation dates will be determined depending on these investments.

Schedule of Necessary Institutional Changes

Table 1.3.2

No	Necessary Institutional Changes - (Ministry of Environment and Forestry)	Period of Implementation
Air Quality		
1	Assignment of authorised institutions at the national, regional and local level	2006

Table 1.3.2 (Continued)

No	Necessary Institutional Changes - (Ministry of Environment and Forestry)	Period of Implementation
2	Strengthening technical and administrative capacity of the Ministry of Environment and Forestry	2006
3	Establishment of the air quality monitoring station network and measurement quality system and improvement of the laboratory infrastructure	As from 2006
4	Evaluation of the air quality in all different areas (including monitoring and modelling) and setting up an inventory	2010
5	Preparation of plans to improve air quality for areas where good air quality cannot be achieved	2010

6	Implementation of the plans for improvement of air quality	2010
7	Establishment of monitoring systems for the greenhouse gases and transboundary transport of pollutants	2010
8	Training on legislation and technical issues for staff involved in air quality.	2010
Fuel Quality		
1	Improvement of quality of diesel fuels	2007
2	Improvement of quality of petrol	2007
3	Improvement of the quality of the liquid fuel used for purposes other than automobiles	Investment by TÜPRAŞ is essential.

Table 1.3.3

No.	Necessary Institutional Changes - (Ministry of Health)	Period of Implementation
1	Training on legislation and its implementation for the personnel of the Ministry of Health central office staff, staff of the Refik Saydam Hygiene Centre (RSHM), and Provincial Health Directorates	2004-2006
2	Elimination of the technical deficiencies in the infrastructure of the Refik Saydam Centre of Hygiene (RSHM) and Public Health Laboratory for the monitoring of the air quality	2004-2006
3	Strengthening of the system to inform the public on air quality	2004-2006

Financing Requirements and Sources of Financing

Table 1.3.4
(Euro)

Requirements - (Ministry of Environment and Forestry)	Year	National Budget	EU Resources	Other	Total
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I-Investment ^{a)}					
II- Harmonisation with the EU legislation and Implementation	2004-2006		(1)		
Personnel					
Training	2004-2006	5,000	(2)+50,000 ^{b)}		55,000
Consultancy	2004-2006		(3)+200,000 ^{b)}		200,000
Translation	2004-2006	5,000	10,000		15,000
Other TR-0302.03 ^{c)}	2004-2006		(1)+(2)+(3) = 1,500,000		1,500,000
Total		10,000	1,760,000		1,770,000

^{a)} The investment requirement will be determined once the Project on Integrated Environmental Harmonisation Strategy (2002-31739) is finalised. In addition, studies on priority environmental projects for accession and supporting the development of an efficient financial mechanism for financing EU environmental heavy-cost directives will be carried out in the context of the environmental heavy cost investments component of the Capacity Development in The Field Of Environment (TR-362.03) Project under the 2002 Pre-accession Financial Assistance Programme.

^{b)} This amount is required for the activities related to EU legislation which is not included in the project (TR-0302.03) proposed to the 2003 Pre-accession Financial Assistance Programme. The needs of the Ministry of Health will also be considered in this context.

^{c)} Twinning Support to Turkey in the field of Air Quality, Chemicals and Waste Management Project (TR-302.03), air quality component (including Directives 96/62/EC on air quality and Directive 2001/80/EC on large combustion plants), proposed to 2003 Pre-accession Financial Assistance Programme.

Table 1.3.5
(Euro)

Requirements - (Ministry of Health)	Year	National Budget	EU Resources	Other	Total
I-Investment					
a-TR-0302.03 ^{a)}	2004-2006	a- 350,000	a- 1,050,000		a- 1,400,000
b-Other ^{b)}	2004-2006	b- (1)	b- (2)	b- (3)	b- 2,000,000 – 4,000,000

II- Harmonisation with the EU legislation and Implementation	2004-2006			(4)	
Personnel	2004-2006	160,000			160,000
Training	2004-2006	5,000		(5)	5,000
Consultancy	2004-2006			(6)	
Translation	2004-2006	5,000	10,000		15,000
Other				(4)+(5)+(6) = 403 000 ^{c)}	403,000
Total		520,000	1,060,000	403,000	3,983,000 - 5,983,000

^{a)} Investment amount of Support to Turkey in the field of Air Quality, Chemicals and Waste Management Project (TR-302.03) proposed to 2003 Pre-accession Financial Assistance Programme, twinning amount was previously given in Table 1.3.4.

^{b)} This amount is required for the EU legislation which is not included in the project (TR-0302.03) proposed to the 2003 Programming of Pre-accession Financial Assistance.

^{c)} The project “strengthening of the implementation Council Decision 97/101/EC on ambient air quality assessment, management and reciprocal information exchange (as part of the Air Quality Directive 96/62/EC) in the Refik Saydam Hygiene Centre, Ministry of Health, Turkey”, supported by the bilateral cooperation with the Government of Netherlands, the MATRA Programme (MAT02/TR/9/2)

1.4. Nature Protection

Schedule of Necessary Legislative Changes

Table 1.4.1

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
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1	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora amended by Council Directive 97/62/EC	Law on biodiversity and nature protection and amendments in the laws listed below: Environment Law No 2872	Ministry of Environment and Forestry Ministry of Culture and Tourism	October 2004	1- 2004, IV. Quarter 2- 2005, III. Quarter
2	97/266/EC: Commission Decision of 18 December 1996 concerning a site information format for proposed Natura 2000 sites	Land Hunting Law No 3167 Law No. 2873 on National Parks			
3	Commission Directive 97/49/EC of 29 July 1997 amending Council Directive 79/409/EEC on the conservation of wild birds	Law No. 2863 on Preservation of Cultural and Natural Property			

Table 1.4.1 (Continued)

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
4	Council Regulation (EC) No 338/97 of 9 December 1996 on the protection of species of wild fauna and flora by regulating trade therein	Revision of the National Implementation Regulation of the CITES Convention	Ministry of Environment and Forestry Ministry of Agriculture and Rural Affairs TÜBİTAK Undersecretariat for Foreign Trade Undersecretariat of Customs	2004, IV. Quarter	2- 2004, IV. Quarter
		Amendment to the Communiqué No 2003/1 on the Export of Endangered Species of Wild Fauna and Flora	Undersecretariat for Foreign Trade	15.12.2004	2- 31.12.2004

		Amendment to the Communiqué No 2003/19 on the Import of Endangered Species of Wild Fauna and Flora		15.12.2004	2- 31.12.2004
		Law on Land Hunting	Ministry of Environment and Forestry	31.12.2003	1- 2004, IV. Quarter 2- 2005, III. Quarter
5	Commission Regulation (EC) No 1808/2001 of 30 August 2001 laying down detailed rules concerning the implementation of Council Regulation (EC) No 338/97 on the protection of species of wild fauna and flora by regulating trade therein	Revision of the National Implementation Regulation of the CITES Convention	Ministry of Environment and Forestry Ministry of Agriculture and Rural Affairs TÜBİTAK Undersecretariat for Foreign Trade Undersecretariat of Customs	2004, IV. Quarter	2- 2004, IV. Quarter

Table 1.4.1 (Continued)

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
		Amendment to the Communiqué No 2003/1 on the Export of Endangered Species of Wild Fauna and Flora	Undersecretariat for Foreign Trade	15.12.2004	2- 31.12.2004
		Amendment to the Communiqué No 2003/19 on the Import of Endangered Species of Wild Fauna and Flora		15.12.2004	2- 31.12.2004

		Law on Land Hunting	Ministry of Environment and Forestry	31.12.2003	1- 2004, IV. Quarter 2- 2005, III. Quarter
6	Council Regulation (EEC) No 3254/91 of 4 November 1991 prohibiting the use of leghold traps in the Community and the introduction into the Community of pelts and manufactured goods of certain wild animal species originating in countries which catch them by means of leghold traps or trapping methods which do not meet international humane trapping standards	Law on Land Hunting	Ministry of Environment and Forestry	31.12.2003	1- 2004, IV. Quarter 2- 2005, III. Quarter
7	Commission Regulation (EC) No 35/97 of 10 January 1997 laying down provisions on the certification of pelts and goods covered by Council Regulation (EEC) No 3254/91	Law on Land Hunting	Ministry of Environment and Forestry	31.12.2003	1- 2004, IV. Quarter 2- 2005, III. Quarter

Table 1.4.1 (Continued)

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
8	97/602/EC: Council Decision of 1 July 1997 concerning the list referred to in the second subparagraph of Article 3 (1) of Regulation (EEC) No 3254/91 and in Article 1 (1) (a) of Commission Regulation (EC) No 35/97	Law on Land Hunting	Ministry of Environment and Forestry	31.12.2003	1- 2004, IV. Quarter 2- 2005, III. Quarter

9	Council Regulation (EEC) No 348/81 of 20 January 1981 on common rules for imports of whales or other cetacean products	New legislation	Ministry of Agriculture and Rural Affairs		Will be determined during the negotiation process.
10	Council Directive 83/129/EEC of 28 March 1983 concerning the importation into Member States of skins of certain seal pups and products derived therefrom	New legislation	Ministry of Agriculture and Rural Affairs		Will be determined during the negotiation process.
11	Council Directive 1999/1/EC of 29 March 1999 relating to the keeping of wild animals in zoos ^{a)}	Implementing Regulation on Establishment and Operation of the Zoos	Ministry of Agriculture and Rural Affairs	28.08.2004	November 2004
12	Council Directive 86/609/EEC of 24 November 1986 on the approximation of laws, regulations and administrative provisions of the Member States regarding the protection of animals used for experimental and other scientific purposes	New legislation on the protection of animals used for experimental and other scientific purposes	Ministry of Agriculture and Rural Affairs Ministry of Environment and Forestry Ministry of Health	2004, II. Quarter	2004, II. Quarter
13	90/67/EEC: Commission Decision of 9 February 1990 setting up an Advisory Committee on the Protection of Animals Used for Experimental and Other Scientific Purposes	New legislation on the protection of animals used for experimental and other scientific purposes	Ministry of Agriculture and Rural Affairs Ministry of Environment and Forestry Ministry of Health	2004, II. Quarter	2004, II. Quarter

^{a)} This Directive is dealt under chapter 7- Agriculture Priority 7.2.

Schedule for Necessary Institutional Changes

Table 1.4.2

No	Necessary Institutional Changes - (Ministry of Environment and Forestry)	Period of Implementation
1	Establishment of a national council or committee that will be responsible for site announcement, monitoring and guidance on implementation	2004, II. Quarter

2	Evaluation of the institutional capacity of the newly merged Ministry of Environment and Forestry regarding nature protection planning and site planning	January 2004
3	Strengthening of the local financial, personnel and equipment capacities to establish a perfectly protected sites network	2005
4	Establishment of a coordination mechanism between all the related institutions responsible for nature protection management, rehabilitation and restoration and its impact at the national, regional and local level, and building the technical infrastructure at the line ministry for this purpose	2005
5	Establishment of a database to monitor the Natura 2000 sites	2006
6	Establishment of monitoring databases for species	2006
7	Strengthening the capacity for the enforcement of the new law	2005 - 2006
8	Increasing the consciousness and training of the populace	2003 - 2005
9	Evaluation of the requirements and projects with high priority	2004 - 2005
10	Compilation of the data in electronic format for the diagnosis and identification of the CITES species ^{a)}	2005
11	Standardisation of the CITES documents and establishment of a database ^{a)}	2005
12	Establishment of an information network between all the related official institutions and the public ^{a)}	2005
13	Improvement of the current rescue centres for the CITES species and establishment of new rescue centres	b)
14	Establishment of protection, control and monitoring systems for the CITES species	b)
15	Training of the stakeholders, and information meetings ^{a)}	2003 - 2005
16	Feasibility study for improving the capacities of the related institutions for CITES procedures	2005

Table 1.4.2 (Continued)

No	Necessary Institutional Changes - (Ministry of Environment and Forestry)	Period of Implementation
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17	Improving the capacities of the related institutions for CITES procedures	Will be determined according to the results of the study mentioned in Item 16.
18	Supporting the institutional infrastructure of the Ministry of Environment and Forestry for an effective national and international coordination of the implementation of CITES legislation	2004
19	Establishment of CITES office/offices	b)
20	Supporting the research activities for determination of the endangered species of wild fauna and flora due to international trade to be added to the CITES Convention lists	2004 ^{c)}
21	Establishment of a consultancy committee and its secretariat for the protection of animals used for experimental and other scientific purposes which will continue working for 20 years	From 2004 on

a) The completion of this activity is foreseen within the Twinning Project on Capacity Building In the Field of Environment for Turkey.

b) The requirements will be determined according to the results of the Twinning Project on Capacity Building In the Field of Environment for Turkey.

c) It is foreseen that this activity will start with the determination of priority species

Financing Requirements and Sources of Financing

Table 1.4.3
(Euro)

Requirements - (Ministry of Environment and Forestry)		Year	National Budget	EU Resources	Other	Total
I-Investment	For necessary institutional changes 1 - 9		Will be determined in 2005 according to the results of the studies of the working groups			
	For institutional change 18	2004	3,000	12,000		15,000
	2002 Twinning Project ^{a)}	2003 - 2005	1,000,000	3,000,000		4,000,000

Table 1.4.3 (Continued)
(Euro)

Requirements - (Ministry of Environment and Forestry)		Year	National Budget	EU Resources	Other	Total
II- Harmonisation with the EU legislation and Implementation						
2002 Twinning Project ^{a)}		2003 - 2005		1,500,000		1,500,000
Personnel	For necessary institutional changes 1 - 9	2004 - 2005	75,230 ^{b)}	50,689 ^{c)}		125,919
	For institutional changes No 16,18	2004 - 2005	180,000 ^{d)}			180,000
Training	For necessary institutional changes 1 - 9	2005	Internet site and brochures = 2,112			2,112
Consultancy	For necessary institutional changes 1 - 9	2004		52,969 ^{e)}		52,969
	For institutional change No 16	2005	National expert (2 man /month) = 15,000	Foreign expert (2 man/ month) = 60,000		75,000
Translation		2003 - 2004	Translation of national legislation = 3,000	6,759		9,759
Other	For necessary institutional changes 1 - 9	2004 - 2005	8,448 ^{f)}			8,448
	For institutional change No 20 ^{g)}	2004 - 2006		1,500,000		1,500,000
	The cost of implementation of the Habitat and Birds Directives ^{h)}	2004 - 2024		1,100,000		1,100,000
	For institutional change No 21 ^{h)}	2004 - 2006	720,000			720,000
Total		2003 - 2006	2,006,790	7,292,417		9,299,207

^{a)} Twinning Project on Capacity Building In the Field of Environment for Turkey in the 2002 Pre-accession Financial Assistance Programme.

^{b)} Task 1: Ministry of Environment and Forestry acts as the coordinator 1,810, Task 2: Guidance Committee 10,391, Task 3: Task Force 8,448, Task 4: Law Expert (Lawyer) 10,264, Task 6: Technical Group 23,317.

^{c)} Twinning Project – Support to the working groups and legal drafting expertise.

^{d)} Ministry of Environment and Forestry CITES office (5 people/year): 160,000, Project team (16 man/month): 20,000.

^{e)} Tasks 2 & 3: National consultancy 12,672, Task 4: Consultancy on law: 6,505, Task 5 : National and international consultancy: 33,792 (costs included).

^{f)} Two workshops for public consultancy (each 150 people): 5,069, Communication and intranet site: 3,379.

⁸⁾ Support to research on the wild fauna and flora in Turkey which is foreseen to be added to the CITES Convention lists that are not covered by 2002 Twinning Project, and other studies carried out in this context

^{b)} This is the cost for 20 years calculated under the scope of the Project on Analysis of Environmental Legislation for Turkey (MEDA/TUR/ENLARG/D4-01).

1.5 Industrial Pollution and Risk Management

Schedule of Necessary Legislative Changes

Table 1.5.1

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution ^{a)}	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
1	Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control	New legislation	Ministry of Environment and Forestry	2006, IV. Quarter	^{b)}
2	Council Directive 84/360/EEC of 28 June 1984 on the combating of air pollution from industrial plants	New legislation	Ministry of Environment and Forestry	2006, IV. Quarter	^{b)}
3	Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants	New legislation	Ministry of Environment and Forestry	2006, II. Quarter	^{b)}

^{a)} The Ministry of Health will contribute to the related legislation harmonization studies.

^{b)} As the implementation of the legislation under this priority requires heavy investment for both the public and private sector, it is deemed necessary to make infrastructural investment and to strengthen technical capacity. Therefore, the date of entry into force will be determined during legislation preparation.

Schedule of Necessary Institutional Changes

Table 1.5.2

No	Necessary Institutional Changes - (Ministry of Environment and Forestry)	Period of Implementation
Industrial Facilities		

1	Assignment of the authorised body	2006, II. Quarter
2	Preparation of the inventory of large combustion plants	2004-2006
3	Cost analysis of the technological modifications to meet the emission limits determined within the context of large combustion plants Directive	2004-2006
4	Inventory studies on technology and treatment techniques etc.	2004-2006
5	Preparation of emission inventory	As from 2006
6	Preparation of programmes to reduce emission loads	As from 2006
7	Determination of financial resources and time periods for transition to the new technologies	As from 2006
8	Establishment of the infrastructure and equipment for continuous measurement of the pollutants and setting up measurement quality system	2006, II. Quarter
Integrated Pollution Prevention		
1	Preparation of the scope inventory (Annex I Facilities of the IPPC Directive)	2006
2	Determination of the “Best Available Technologies” for Turkey, harmonisation requirements, and performing cost analysis	2006
3	Analysis of the institutional requirements and clarification of competencies.	2004-2006
4	Elimination of the disorganisation in issuing permits, and simplification of the permit system	2006
5	Establishment of technological and administrative structure	2010
6	Increasing capacity in terms of human resources	2010
7	Preparation of implementation guidelines for the implementing staff	2010
8	Preparation of implementation guidelines for the sectors	2010

Table 1.5.2 (Continued)

No	Necessary Institutional Changes - (Ministry of Environment and Forestry)	Period of Implementation
9	Implementation of economically and technologically reasonable emission limits	2010

10	Accreditation in measurement of emissions and submission of the emission data to the European Commission	2010
11	Initiation of integrated permitted applications	2010

Financing Requirements and Sources of Financing

Table 1.5.3
(Euro)

Requirements - (Ministry of Environment and Forestry)	Year	National Budget	EU Resources	Other	Total
I-Investment ^{a)}					
II- Harmonisation with the EU legislation and Implementation ^{b)}	2004-2006			(1)	
Personnel	2004-2006	160.000			160.000
Training	2004-2006	5.000	50.000 ^{c)}	(2)	55.000
Consultancy	2004-2006		200.000 ^{c)}	(3)	200.000
Translation	2004-2006		20.000		20.000
Other				(1)+(2)+(3)= 525.000 ^{d)}	525.000
Total		165.000	270.000	525.000	960.000

^{a)} The investment requirement will be determined once the Project on Integrated Environmental Harmonisation Strategy (2002-31739) is finalised. In addition, studies on priority environmental projects for accession and supporting the development of an efficient financial mechanism for financing EU environmental heavy-cost directives will be carried out in the context of the environmental heavy cost investments component of the Capacity Development in The Field Of Environment (TR-362.03) Project under the 2002 Pre-accession Financial Assistance Programme.

^{b)} The information regarding Directives 96/62/EC and 2001/80/EC in the context of Support to Turkey in the Field of Air Quality, Chemicals and Waste Management Project (TR-302.03) proposed to the 2003 Pre-accession Financial Assistance Programme is given in Table 1.3.4.

^{c)} This amount is required for the activities related to EU legislation which is not included in the project (TR-302.03) proposed to the 2003 Pre-accession Financial Assistance Programme.

^{d)} The project "Institutional strengthening for the adoption and implementation of integrated pollution prevention and control directive (IPPC - 96/61/EC)", supported by the bilateral cooperation with the Government of Netherlands, MATRA Programme, (PPA02/TR/7/10).

1.6 Increasing Strength and Effectiveness of Environmental Impact Assessment Process and Aligning with Strategic Environmental Assessment Directive

Schedule of Necessary Legislative Changes

Table 1.6.1

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
1	Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment	Implementing Regulation on Strategic Environmental Impact Assessment	Ministry of Environment and Forestry	2005, IV. Quarter	2. 2005, IV. Quarter

Schedule of Necessary Institutional Changes

Table 1.6.2

No	Necessary Institutional Changes - (Ministry of Environment and Forestry)	Period of Implementation
1	Training of personnel working in the field of Environmental Impact Assessment to strengthen the current institutional structure	2003-2005
2	Training of personnel working in the field of Strategic Environmental Assessment to strengthen the current institutional structure	2003-2005
3	Preparation of sectoral guidelines for increasing the effectiveness of the Environmental Impact Assessment and Strategic Environmental Assessment	2003-2005

Table 1.6.2 (Continued)

No	Necessary Institutional Changes - (Ministry of Environment and Forestry)	Period of Implementation
4	Training of the other Ministry personnel and the local authorities who will be involved in the implementation of the Strategic Environmental Assessment Directive via training of trainers	2003-2005
5	Strengthening of the administrative capacity to monitor the implementation of the Strategic Environmental Assessment Directive	2005-2006

Financing Requirements and Sources of Financing

**Table 1.6.3
(Euro)**

Requirements - (Ministry of Environment and Forestry)	Year	National Budget	EU Resources	Other	Total
I-Investment					
II- Harmonisation with the EU legislation and Implementation	2003-2005			(1)	
Personnel					
Training	2003-2006	10,000	100,000	(2)	110,000
Consultancy	2004-2006		400,000	(3)	400,000
Translation	2003-2006		20,000		20,000
Other				(1)+(2)+(3)= 403,000 ^{a)}	403,000
Total		10,000	520,000	403,000	933,000

^{a)} The project (MAT 02/TR/9/1) on Adoption and Implementation of the Strategic Environmental Assessment Directive in Turkey carried out with the Netherlands in the framework of bilateral cooperation.

1.7 Environmental Noise Management

Schedule of Necessary Legislative Changes

Table 1.7.1

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
1	Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise	Secondary legislation	Ministry of Environment and Forestry	2005, IV. Quarter	2. 2006, IV. Quarter

Schedule of Necessary Institutional Changes

Table 1.7.2

No	Necessary Institutional Changes - (Ministry of Environment and Forestry)	Period of Implementation
1	Turkey-wide determination of industrial and transport (road, rail and air transport) originated noise indicators (using calculation and measurement procedures)	2005-2007
2	Determination of the “dose-effect” calculation methods to evaluate the effects of noise on the society	2005-2007
3	Preparation of noise maps	2005-2007
4	Preparation of action plans for noise control	2005-2007
5	Establishment of the noise measurement quality system and strengthening of the technical personnel and the laboratory infrastructure	2005-2007

Financing Requirements and Sources of Financing

Table 1.7.3
(Euro)

Requirements - (Ministry of Environment and Forestry)	Year	National Budget	EU Resources	Other	Total
I-Investment ^{a)}					
II- Harmonisation with the EU legislation and Implementation	2004-2006		(1)		
Personnel					
Training	2004-2006		(2)		
Consultancy	2004-2006		(3)		
Translation	2004-2006	5,000	10,000		15,000
Other			(1)+(2)+(3)= 1,000,000 ^{b)}		1,000,000
Total		5,000	1,010,000		1,015,000

^{a)} The investment requirement will be determined after the Project (2002-31739) on Integrated Environmental Harmonisation Strategy is finalised.

^{b)} Project proposal will be submitted to the Pre-accession Financial Assistance Programme.

1.8 Management of Chemicals

Task 1.8.1 Chemicals

Schedule of Necessary Legislative Changes

Table 1.8.1.1

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
1	Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances	Revision of the Implementing Regulation on Dangerous Chemicals	Ministry of Environment and Forestry	2005, IV. Quarter	2. 2006, IV. Quarter
2	Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations	Revision of the Implementing Regulation on Dangerous Chemicals	Ministry of Environment and Forestry	2005, IV. Quarter	2. 2006, IV. Quarter
3	Commission Directive 93/67/EEC of 20 July 1993 laying down the principles for assessment of risks to man and the environment of substances notified in accordance with Council Directive 67/548/EEC	Secondary legislation	Ministry of Environment and Forestry	2005, IV. Quarter	2. 2006, IV. Quarter
4	Council Regulation (EEC) No 2455/92 of 23 July 1992 concerning the export and import of certain dangerous chemicals	Implementing Regulation on the Import and Export of Certain Dangerous Chemicals According to the Prior Informed Procedure	Ministry of Environment and Forestry	2005, IV. Quarter	2. 2006, IV. Quarter
5	Council Regulation (EEC) No 793/93 of 23 March 1993 on the evaluation and control of the risks of existing substances	Implementing Regulation on the Risk Assessment and Control of the Existing Substances	Ministry of Environment and Forestry	2005, IV. Quarter	2. 2006, IV. Quarter

Schedule of Necessary Institutional Changes

Table 1.8.1.2

No	Necessary Institutional Changes - (Ministry of Environment and Forestry)	Period of Implementation
1	Analysis of the administrative capacity and establishment of an inventory of the chemicals placed on the market	2004
2	Establishment of a chemicals database	2004, IV. Quarter – 2005, III. Quarter
3	Establishment and strengthening of the institutional structure for the implementation of the directives regarding chemicals considering all the existing institutions	2004, IV. Quarter – 2005, II. Quarter
4	Preparation and application of an action plan on the implementation of the directives regarding chemicals in Turkey	2005, IV. Quarter – 2006, II. Quarter
5	Training of the trainers and preparation of guides in this context	2004, IV. Quarter – 2006, I. Quarter

Financing Requirements and Sources of Financing

Table 1.8.1.3
(Euro)

Requirements - (Ministry of Environment and Forestry)	Year	National Budget	EU Resources	Other	Total
I-Investment ^{a)}					
II- Harmonisation with the EU legislation and Implementation	2004-2006		(1)		
Personnel					
Training	2004-2006	5,000	(2)+50,000 ^{b)}		55,000
Consultancy	2004-2006		(3)+200,000 ^{b)}		200,000

Translation	2004-2006	5,000	10,000		15,000
Other			(1)+(2)+(3) = 1,500,000 ^{c)}		1,500,000
Total		10,000	1,760,000		1,770,000

a) The investment requirement will be determined after the Project (2002-31739) on Integrated Environmental Harmonisation Strategy is finalised.

b) This amount is required for the activities related to EU legislation which is not included in the project (TR-302.03) proposed to the 2003 Pre-accession Financial Assistance Programme.

c) Twinning Support to Turkey in the field of Air Quality, Chemicals and Waste Management Project (TR-302.03), chemicals component, proposed to the 2003 Pre-accession Financial Assistance Programme.

Task 1.8.2 Pesticides

Schedule of Necessary Legislative Changes

Table 1.8.2.1

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
1	Directive 98/8/EC of the European Parliament and of the Council of 16 February 1998 concerning the placing of biocidal products on the market	Implementing Regulation on the Pesticides and Pseudo-pesticide Substances Used in the Field of Public Health	Ministry of Health	2003, IV. Quarter	2.2003, IV. Quarter
		Circular on Biocidal Products Used in Veterinary Surgery	Ministry of Agriculture and Rural Affairs	2005, IV. Quarter	2.2005, IV. Quarter
		Implementing Regulation Concerning the Placing of Biocidal Products on the Market	Ministry of Agriculture and Rural Affairs	2004, IV. Quarter	2.2005, II. Quarter

Schedule of Necessary Institutional Changes

Table 1.8.2.2

No.	Necessary Institutional Changes - (Ministry of Health)	Period of Implementation
1	Training of the personnel of the Ministry, central office staff, staff of the Refik Saydam Hygiene Centre (RSHM) and Provincial Health Directorates, who will be working in the field of pesticides used in the public health area, on harmonisation and implementation of the legislation	2004-2006
2	Elimination of the deficiencies in the technical equipment of the Refik Saydam Centre of Hygiene and Health Laboratory and strengthening its current technical system	2004-2006
3	Providing technical assistance to the staff of the Refik Saydam Hygiene Centre and Public Health Laboratory and training from an accredited laboratory of a Member State on the pesticides used in the public health area	2004-2006

Table 1.8.2.2 (Continued)

No.	Necessary Institutional Changes - (Ministry of Health)	Period of Implementation
4	Determination of the risk points regarding pesticides used in the field of public health, and carrying out improvement studies	2004-2006
5	Training of producers and consumers	2004-2006
6	Preparation of a national protocol on sampling and analysis of the pesticides used in the field of public health	2004-2006

Table 1.8.2.3

No	Necessary Institutional Changes - (Ministry of Agriculture and Rural Affairs)	Period of Implementation
1	Strengthening of the technical infrastructure of the laboratories	2004-2006

2	Training of the personnel on harmonisation and implementation of the legislation	2004-2005
3	Providing technical assistance to the laboratories working in the field of pesticides and training of the laboratory personnel on implementations	2004-2006

Financing Requirements and Sources of Financing

**Table 1.8.2.4
(Euro)**

Requirements - (Ministry of Agriculture and Rural Affairs)	Year	National Budget	EU Resources	Other	Total
I- Investment ^{a)}					
II- Harmonisation with the EU legislation and Implementation					
Personnel					
Training	2004-2006	1,000	5,000		6,000

**Table 1.8.2.4 (Continued)
(Euro)**

Requirements - (Ministry of Agriculture and Rural Affairs)	Year	National Budget	EU Resources	Other	Total
Consultancy	2004-2006		200,000		200,000
Translation	2004-2006	5,000	10,000		15,000
Other					

Total		6,000	215,000		11,000
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^{a)} Investment needs will be identified within the scope of consultancy services.

For the Ministry of Health, financing requirements are not foreseen at this stage for this priority.

1.9 Genetically Modified Organisms

Schedule of Necessary Legislative Changes

Table 1.9.1

No	Title and number of EU legislation ^{a)}	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
1	Directive 2001/18/EC of the European Parliament and of the Council of 12 March 2001 on the deliberate release into the environment of genetically modified organisms and repealing Council Directive 90/10/EEC	Implementing Regulation on the Deliberate Release of Genetically Modified Organisms (GMO) into the Environment and Placing of GMO on the Market	Ministry of Agriculture and Rural Affairs Ministry of Environment and Forestry Ministry of Health	2004, IV. Quarter	2. 2004, IV. Quarter
2	Council Directive 90/219/EEC of 23 April 1990 on the contained use of genetically modified micro-organisms	Implementing Regulation on the Contained Use of Genetically Modified Microorganisms	Ministry of Agriculture and Rural Affairs Ministry of Health	2005, IV. Quarter	2. 2005, IV. Quarter

^{a)} Since the legislation which is not included in table requires preparation and detailed field work it could not be included in this National Programme.

Schedule of Necessary Institutional Changes

Table 1.9.2

No	Necessary Institutional Changes - (Ministry of Agriculture and Rural Affairs)	Period of Implementation
1.	Establishment of the National Bio-security Committee	2004
2.	Establishment of Reference Laboratories to conduct tests necessary to perform risk analysis on GMOs and to determine whether any product includes GMO, to establish the necessary infrastructure for these laboratories, and training of the personnel for this purpose.	2004-2010

Financing Requirements and Sources of Financing

Table 1.9.3

Requirements - (Ministry of Agriculture and Rural Affairs)	Year	National Budget	EU Resources	Other	Total
I-Investment ^{a)}	2004	150,000 ^{b)}			150,000
II- Harmonisation with the EU legislation and Implementation	2004-2005	30,000	(3)	(UNEP-GEF Project) 170,000	200,000
Personnel					
Training	2004-2005	30,000	(4)		30,000
Consultancy	2004-2005	20,000	(5)		20,000
Translation	2004-2005	10,000	100,000		110,000
Other			(3)+(4)+(5) = 1,500,000 ^{c)}		1,500,000
Total		240,000	1,600,000	170,000	2,010,000

- a) The investment requirement will be determined after the Project (2002-31739) on Integrated Environmental Harmonisation Strategy is finalised.
- b) This amount is the national budget contribution of the Bio-Security Research and Development Project.
- c) A project will be proposed to the Pre-accession Financial Assistance Programme.

1.10 Nuclear Safety

Schedule of Necessary Legislative Changes

Table 1.10.1

No	Title and number of EU legislation	Title of Draft Turkish Legislation	Responsible Institution	Proposed Date of Approval of Minister/Council of Ministers	Proposed Date of 1- Adoption by the Parliament 2- Entry into force
1	Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation	Revision of the Regulation on Radiation Safety	Turkish Atomic Energy Authority	2004, II. Quarter	2. 2004, II. Quarter
		Revision of the Implementing Regulation on Radiation Safety	Turkish Atomic Energy Authority	2004, II. Quarter	2. 2004, II. Quarter
2	Council Directive 97/43/Euratom of 30 June 1997 on health protection of individuals against the dangers of ionizing radiation in relation to medical exposure, and repealing Directive 84/466/Euratom	Revision of the Implementing Regulation on Nuclear Medicine	Turkish Atomic Energy Authority	2004, II. Quarter	2. 2004, II. Quarter
		Revision of the Implementing Regulation on Diagnostic Radiology	Turkish Atomic Energy Authority	2004, II. Quarter	2. 2004, II. Quarter
3	Council Regulation (Euratom) No 1493/93 of 8 June 1993 on shipments of radioactive substances between Member States	Revision of the Implementing Regulation on Safe Transport of the Radioactive Materials	Turkish Atomic Energy Authority	2004, II. Quarter	2. 2004, II. Quarter
		Implementing Regulation on the Waste Produced from Use of Radioactive Substances	Turkish Atomic Energy Authority	2004, II. Quarter	2. 2004, II. Quarter
4	Council Directive 92/3/Euratom of 3 February 1992 on the supervision and control of shipments of radioactive waste between	Revision of the Implementing Regulation on Safe Transport of the Radioactive Materials	Turkish Atomic Energy Authority	2004, II. Quarter	2. 2004, II. Quarter

	Member States into and out of the Community ^{a)}	Implementing Regulation on the Waste Produced from Use of Radioactive Substances	Turkish Atomic Energy Authority	2004, II. Quarter	2. 2004, II. Quarter
5	Council Directive 90/641/Euratom of 4 December 1990 on the operational protection of outside workers exposed to the risk of ionizing radiation during their activities in controlled areas	Revision of the Regulation on Radiation Safety	Turkish Atomic Energy Authority	2004, II. Quarter	2. 2004, II. Quarter
		Revision of the Implementing Regulation on Radiation Safety	Turkish Atomic Energy Authority	2004, II. Quarter	2. 2004, II. Quarter

^{a)} Commission Decision 93/552/Euratom will be taken into consideration throughout the harmonisation studies.

Schedule of Necessary Institutional Changes

Institutional changes are not foreseen at this stage for this priority.

Financing Requirements and Sources of Financing

Financing requirements are not foreseen at this stage for this priority.

ANNEX II

EU LEGISLATION AND CORRESPONDING TURKISH LEGISLATION IN 2003 NPAA

Title of the EU Legislation	Corresponding Turkish Legislation
Air Quality	
Directive 97/68/EC of the European Parliament and of the Council of 16 December 1997 on the approximation of the laws of the Member States relating to measures against the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery	Type Approval Regulation on measures against the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery (97/68/EC), was published in Official Gazette No: 24984 dated 5 January 2003, and will enter into force on 5 April 2003 Phase I, 1 January 2005 Phase II
Environmental Impact Assessment	
Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment and Council Directive 97/11/EC of 3 March 1997 amending Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment	Implementing Regulation on Environmental Impact Assessment, was published in Official Gazette No: 24777 dated 6 June 2002 ^{a)}
Noise	
Council Directive 86/594/EEC of 1 December 1986 on airborne noise emitted by household appliances	Communiqué on Noise Emitted by Household Appliances TRKGM:20003/02 (86/594/EEC), was published in Official Gazette No: 25032 dated 26 February 2003. (Schedule for necessary institutional changes and Financing Requirements for Ministry of Industry and Trade are given in Free Movements of Goods Chapter).
Directive 2000/14/EC of the European Parliament and of the Council of 8 May 2000 on the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for use outdoors	Implementing Regulation concerning the noise emission in the environment by equipment for use outdoors (2000/14/EC), was published in Official Gazette No: 25001 dated 1 January 2003 and will enter into force on 3 July 2004 Phase I, 3 January 2006 Phase II (Schedule for necessary institutional changes and Financing Requirements for Ministry of Industry and Trade are given in Free Movements of Goods Chapter).
Chemicals	
Commission Directive 91/155/EEC of 5 March 1991 defining and laying down the detailed arrangements for the system of specific information relating to dangerous preparations in implementation of Article 10 of Directive 88/379/EEC	Communiqué on Safety Data Sheet Preparation Procedures and Principles Principals was published in Official Gazette No:24692 dated 11 March 2002.
Council Directive 89/618/Euratom of 27 November 1989 on informing the general public about health protection measures to be applied and steps to be taken in the event of a radiological emergency	National Implementing Regulation concerning Nuclear and Radiological Emergency was published in Official Gazette No:23934 dated 15 January 2000 and it was put into force.

^{a)} Except for transboundary environmental impact, it is in harmony with the Directive.

ANNEX III

TURKEY'S CURRENT POSITION AND THE PROCEDURE TO BE FOLLOWED, CONCERNING INTERNATIONAL CONVENTIONS RELATED TO THE ENVIRONMENT TO WHICH EC IS A CONTRACTING PARTY OR A SIGNATORY IN 2003 NPAA

International Conventions related to environment to which EC is a contracting party or a signatory	Official Gazette Date and Number	Comments
Convention for the protection of the Mediterranean Sea against pollution (Barcelona, 16.02.1976) Amended, 10.06.1995	12.06.1981-17368 1.08.2002-24854	
Protocol for the prevention of pollution of the Mediterranean Sea by dumping from ships and aircraft (Barcelona, 16.02.1996) Amended, 10.06.1996	12.06.1981-17368 1.08.2002-24854	
Protocol concerning cooperation in combating pollution of the Mediterranean Sea by oil and other harmful substances in cases of emergency (Barcelona, 16.02.1976)	12.06.1981-17368	
Protocol concerning cooperation in preventing pollution from ships and, in cases of emergency, combating pollution of the Mediterranean Sea (New Emergency Protocol), Malta, 25.01.2002	20.05.2003-25113	
Protocol for the protection of the Mediterranean Sea against pollution from land-based sources (Athens, 17.05.1980) Amended, 8.03.1996	18.03.1987-19404 1.08.2002-24854	
Protocol to the Barcelona Convention concerning specially protected areas of the Mediterranean Sea (Geneva, 3.4.1982)	12.10.1988-19968	
Protocol to the Barcelona Convention concerning specially protected areas and Biological Diversity of the Mediterranean Sea (Barcelona, 10.6.1995)	1.08.2002-24854	
Convention on Long-range transboundary air pollution (Geneva, 13.11.1979)	23.03.1983-17796	
Convention to combat desertification in countries experiencing serious drought and/or desertification, particularly in Africa, Paris 17.6.1994	16.05.1998-23344	
Protocol to the Convention on long-range transboundary air pollution concerning long-term financing of the cooperative programme for monitoring and evaluation of long-range transmission of air	23.7.1985-18820	

pollutants in Europe (Geneva, 28.9.1984)		
International Conventions related to environment to which EC is a contracting party or a signatory	Official Gazette Date and Number	Comments
Protocol to the Convention for the protection of the Ozone Layer (Montreal Protocol), Montreal 1987 Amended, London, 29.06.1990 Amended Copenhagen, 25.11.1992 Amended Montreal, 17.9.1997 Amended Beijing, 3.12.1999	28.12.1994-1155 28.12.1994-1155 29.09.1995-1419 07.06.2003-25131 17.06.2003-25141	
Convention for the protection of ozone layer Vienna, 1.3.1985	28.12.1994-1155	
Convention on biological diversity Rio, 5.6.1992	27.12.1996-1860	
Convention on the conservation of European wildlife and natural habitats Bern, 1979	20.02.1984-18318	
Convention on the control of transboundary movements of hazardous wastes and their disposal (Basel Sözleşmesi), Basel, 1989	15.5.1994-21935	
Protocol on biosafety to the biodiversity convention (The Cartagena Protocol), Montreal, 29.1.2000	24.06.2003-25148	
Framework Convention on climate change, New York, 9.5.1992		Being discussed in the relevant Commissions of the TNGA.
Protocol to the United Nations framework convention on climate change, Kyoto, 11.12.1997		The procedure to become a party to the Convention is being continued. Afterwards, the Protocol can be considered depending on the present conditions in Turkey.
Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade, Rotterdam, 10.9.1991		Convention was signed in 1998. Before starting ratification procedure the Implementing Regulation on Hazardous Wastes should be harmonized with Directives 67/548/EEC and 99/45/EEC

International Conventions related to environment to which EC is a contracting party or a signatory	Official Gazette Date and Number	Comments
Convention on persistent organic pollutants (the POP Stockholm Convention), Stockholm, 1.5.2001		Convention was signed in 2001. Following the preparation of action plan and being a party to PIC Convention, ratification procedure will be started.
Protocol to the Convention on long-range transboundary air pollution concerning the control of emissions of nitrogen oxides or their transboundary fluxes, Sofia, 31.10.1988		Although the Protocol itself is being supported, to meet the provisions, heavy cost infrastructure investments and thus financing are required. Therefore, this Convention, could not be elaborated upon in this National Programme.
Protocol to the Convention on long-range transboundary air pollution concerning the control of volatile organic compounds or their transboundary fluxes, Geneva, 18.11.1991		Although the Protocol itself is being supported, to meet the provisions, heavy cost infrastructure investments and thus financing are required. Therefore, this Convention, could not be elaborated upon in this National Programme.
Protocol to the Convention on long-range transboundary air pollution concerning the further reductions of sulphur emissions, Oslo, 13.6.1994		Although the Protocol itself is being supported, to meet the provisions, heavy cost infrastructure investments and thus financing are required. Therefore, this Convention, could not be elaborated upon in this National Programme.
Protocol to the Convention on long-range transboundary air pollution on heavy metals, Aarhus, 24.6.1998		Although the Protocol itself is being supported, to meet the provisions, heavy cost infrastructure investments and thus financing are required. Therefore, this Convention, could not be elaborated upon in this National Programme.
Protocol to the Convention on long-range transboundary air pollution on persistent organic pollutants (POPs), Aarhus, 24.6.1998		Although the Protocol itself is being supported, to meet the provisions, heavy cost infrastructure investments and thus financing are required. Therefore, this Convention, could not be elaborated upon in this National Programme.

International Conventions related to environment to which EC is a contracting party or a signatory	Official Gazette Date and Number	Comments
Convention for the protection of vertebrate animals used for experimental and other scientific purposes, Strasbourg, 18.3.1986		The Convention was signed on 5 September 1986
Convention on the conservation of migratory species of wild animals, Bonn, 23.6.1979		Being a party to the Convention is considered under the coordination of Ministry of Environment and Forestry.
Convention on environmental impact assessment in a transboundary context, Espoo, 25.2.1991		To be considered at a later stage prior to accession.
Convention on the protection and use of transboundary watercourses and international lakes, Helsinki, 17.03.1992		To be considered at a later stage prior to accession.
Convention on transboundary effects of industrial accidents, Helsinki, 17.3.1992		The Convention is being assessed by Ministry of Environment and Forestry. To meet the provisions of the Convention, heavy cost infrastructure investments and financing are required.
International tropical timber agreement, Geneva, 26.1.1994		The Convention is not taken as a priority in this National Programme.
Agreement on the conservation African-Eurasian migratory waterbirds, The Hague, 15.6.1995)		The Convention is not taken as a priority in this National Programme.
Convention on access to environmental information, public participation in environmental decision-making, and access to justice, Aarhus, 25.6.1998		To be considered at a later stage prior to accession.

NOTE: Turkey is party to the Convention on the Protection of the Black Sea against pollution, and the Protocols to the Conventions listed below (Official Gazette No:21869 and dated 06.03.1994)

- Protocol on the protection of the Black Sea coast against pollution from land-based sources
- Protocol concerning cooperation in combating the pollution of the Black Sea coast by oil and other harmful substances in cases of emergency
- Protocol concerning the protection of the Black Sea coast from discharges.

ANNEX IV

ENVIRONMENT SECTION OF 2001 NATIONAL PROGRAM FOR ADOPTION OF THE ACQUIS

LIST

Horizontal
Air Quality
Waste Management
Water Quality
Nature Protection
Chemicals and genetically modified organisms
Noise from vehicles and machinery
Nuclear safety and protection from radiation
Climate Change

1.1. Environment

1.1.1. Horizontal

Turkey has been experiencing a rapid growth in energy, industry, transport and tourism sectors, nevertheless to a huge immigration from rural areas to urban and coastal areas. All these developments intensified the pressure on the environment and in parallel, revealed the significance of environmental protection and combating against environmental pollution. Consequently, legal and institutional structuring efforts have been accelerated in this respect. Constitution of 1982 recognizes the right of citizens to live in a healthy and well-balanced environment, and stipulates that it is the common duty of the state and the citizens to protect environment and to prevent pollution. The Environment Law enacted in 1983 sets forth the framework of environmental management and the related legislation, and thus defines the fundamental principles such as polluter pays principle (PPP).

Environment Law was enforced after the enactment of the below listed regulations.

- Regulation of the Fund for Prevention of Pollution (1985),
- Regulation on the Protection of Air Quality (1986),
- Regulation on Noise Control (1986),
- Regulation on the Fines Be Imposed on Ships and Other Sea Vessels (1987),
- Regulation on the Control of Water Pollution (1988),

- Regulation on the Solid Wastes Control (1991),
- Regulation on Environmental Impact Assessment (1993),
- Revision of the Regulation on Environmental Impact Assessment (1997),
- Regulation on the Medical Wastes Control (1993),
- Regulation on the Hazardous Wastes Control Management (1995),
- Regulation on the Control of Harmful Chemical Substances and Products

The Ministry of Environment was established in 1991 for the aim of developing and protecting the environment as well as preventing pollution. The activities of the Ministry of Environment cover issues such as appropriate land use, protection of natural resources, plant and animal species, prevention of pollution and raising public awareness. Setting environmental policies and strategies, coordinating environmental activities on local, national and international levels, issuing environmental licenses, collecting information and organizing training activities are among the other duties of the Ministry. All these activities are conducted in close cooperation with other ministries, related institutions, local governments and non-governmental organizations. A total of 800 and 500 people are currently being employed by the Ministry of Environment at the center and provincial offices respectively.

The State Planning Organization prepares the development plans which is accepted as the basic instruments of government policies in economic and social issues for efficient use of resources. The Organization has been including environmental issues in its development plans since the Third Five Year Development Plan (1973 – 1977).

The concept of “sustainable development” was approved in the Sixth Five Year Development Plan, whereas the National Environmental Action Plan (NEAP) was set forth in the Seventh Five Year Development Plan for an efficient environmental management. NEAP was prepared by the technical support of the Ministry of Environment under the coordination of the State Planning Organization and with significant level of involvement of the related institutions and individuals. Within this framework, (i) the significance of conducting certain activities for the development of an efficient environmental management system, (ii) importance of the need for environmental data and public awareness, (iii) new investment proposals in different thematic areas, (iv) compliance to the environmental standards of the EU and adoption of the related regulations thereof were emphasized.

Environmental management issues are considered not only by the Ministry of Environment, but also by some other Ministries, institutions and organizations. The activities of those institutions may be related, either directly or indirectly, to the protection of environment and prevention of pollution.

Directorate General for State Hydraulic Works (DSI) is responsible for the management and development of water resources, the Ministry of Health for environmental health services, the Ministry of Forestry for National Parks and other areas under protection (except for the 13 special environmental protection areas managed by the Authority for the Management of Special Environmental Protection), The Ministry of Culture for some natural protected areas, the Ministry of Agriculture and Rural Affairs for water pollution and control as well as the

protection of natural resources including fishery, the Ministry of Energy and Natural Resources for the sustainable generation and consumption of energy and natural resources, and the Ministry of Industry and Trade for the identification of industrial policies of the country.

General Directorate for Rural Affairs conducts studies on issues such as water supply in rural areas, irrigation and water treatment. Municipalities conduct studies on environmental infrastructure, drinking water and sewerage services, waste collection and disposal, and land use.

General Directorate for the Bank of Provinces, on the other hand, provides assistance to Municipalities on issues such as preparation of projects and implementation of urban infrastructure projects, and conducts activities such as mapping, development plans, drinking water and tap water, sewerage, solid waste, geological and geotechnical studies, construction works of municipal service buildings and other various facilities.

4.23.1.1. Environmental Impact Assessment (EIA)

I. Priority Description

a) Current Status

The Regulation on EIA prepared in line with the EIA Directive (85/337/EEC and 97/11/EC) and is generally in alignment with the said Directive. In the annexes (Annex I and Annex II, EIA List of Activities), there exist minor differences with regard to different sectors. It is planned to complete the ongoing studies on the Revision of the Regulation on EIA by the end of 2001.

b) EU Acquis

The list of the related EU acquis is provided in Volume II.

c) Implementing Institution

Ministry of Environment

d) Final Objective

It is aimed at increasing efficiency of the EIA process, adopting the Acquis Communautaire of the Community and establishing the required technical infrastructure.

As regards the strategical EIA practices, it is known that the EU Directive is being prepared as a draft and it is planned to conduct the required studies and the regulations in line with the Directive to be enacted.

II. Comparison of the EU acquis with the corresponding Turkish legislation and the measures to be taken for implementing the necessary amendments and modifications

a) The Corresponding Turkish Legislation

Apart from the Regulation on EIA, the other related regulations enacted with reference to the Environment Law and implemented in the EIA process are as follows:

- “Regulation on the Protection of Air Quality”,
- “Regulation on Noise Control”,
- “Regulation on the Control of Water Pollution”,
- “Regulation on the Solid Wastes Control”,
- “Regulation on the Medical Wastes Control”,
- “Regulation on the Hazardous Wastes Control Management”
- “Regulation on the Control of Harmful Chemical Substances and Products”

b) Necessary Amendments and Modifications in the Corresponding Turkish Legislation

The Regulation on EIA and the list of activities stated in Annexes I and II should be revised to eliminate the differences with the EU acquis.

c) Necessary Institutional Changes

Although no new institutional structuring is required for EIA practices, the existing structure should be modified to redefine the job descriptions and fulfill additional responsibilities within the framework of the existing institutional structure.

d) Additional Requirements Stemming From the Entry into Force of the New Legislation

The government, municipalities and the private sector should reinforce their environmental activities, and mobilize and use more effectively their new financial resources in Turkey.

It is required to eliminate shortcomings in the central and provincial offices in terms of technical and personnel aspects for ensuring more efficient implementation of the regulation on EIA.

e) Additional Staff and Training Requirements for the Implementation of Amendments and Modifications

It is required to have the personnel trained both at the national and international level on EIA practices of the other member states (on EIA practices; sectorial guidelines, screening procedures, assessment and monitoring), and to make investigations in the countries on their best practices.

f) Necessary Investments

It is required to install the necessary computer systems (network, etc) for effective EIA Practices.

II. Time Schedule

Short Term

- To conclude revision studies of the Regulation on EIA,
- To ensure international training on EIA practices (EIA Practices, EIA evaluation and monitoring).
- To prepare sectorial evaluation and follow-up guidelines detailing the examination-evaluation process followed for sectorial eliminating-scanning guidelines and the EIA Report or Pre-EIA Report for the aim of understanding whether or not the activity in concern is under the scope of the Regulation on EIA.

Medium Term

- To prepare and enforce Sectorial EIA Guidelines,
- To eliminate national infrastructural gaps to become a party to the Transboundary EIA Convention
- To conduct training activities on sectorial guidelines, eliminating-scanning activities, strategical EIA and standard EIA practices.

IV. Financing

There is a current financial requirement of about 7 million Euro for the works and developments referred to in sections (b), (c), (d), (e) and (f) above.

4.23.1.2 Access to Information on Environment / European Environment Agency

I. Priority Description

a) Current Status

Certain projects are being executed to set up a national environmental database and the technical infrastructure thereof. Through the Data Base System, it shall be possible for the institutions to have access to data to be collected throughout Turkey any time they might require. This system shall be integrated with the “Public-Net” (Kamu-Net) Project of the Prime-Ministry.

“The National Environmental Awareness, Training and Communication” Project is being executed for the aim of setting a national strategy and implementation model on environmental awareness, training and communication. This Project aims at raising public awareness in protecting natural and cultural heritage through environmental management and at developing technical and financial recommendations in this respect.

“The Agreement on the Accession of the Republic of Turkey to the European Environment Agency and the European Environment Information and Observatory Network Between the Republic of Turkey and the European Community” has been signed and is expected to be enforced early in 2001.

b) EU Acquis

The list of the related EU acquis is provided in Volume II.

c) Implementing Institution

The Ministry of Environment, The Ministry of Health

d) Final Objective

To ensure access to information on environment, a national plan shall be prepared in 2001 for the aim of establishing the required legal, technical and administrative infrastructure in Turkey. This national plan will at the same time define the accession strategy of Turkey to Aarhus Convention and will accelerate integration process with the European Environment Agency and EIONET.

III. Financing

50 million Euro is required to set up the national environmental database system, and to meet hardware, software and other requirements.

1.1.2. Air Quality

I. Priority Description

a) Current Status

The fundamental legal instrument arranging issues relating to air pollution and air quality management in Turkey is the Regulation on Protection of Air Quality enacted in 1986. The Regulation is dealing with many issues such as air quality threshold values for 17 pollutant parameters, target values for 2 pollutants, warning levels and the measures to be taken when the warning levels are reached as well as other matters relating to measurements and analyses. The Regulation also sets forth an emission permit system for industrial facilities and processes.

Air quality measurements are being done on nationwide basis, and comprehensive data is available only on 2 pollutants.

Air quality monitoring is being done by the provincial offices of the Ministry of Health and the results thereof are published by the State Institute of Statistics. The monitoring results are also assessed by the Ministry of Environment annually. In this way, the provinces are classified for the aim of developing policies on the prevention of air pollution and improvement of air quality.

In metropolitan cities, air pollution gets more important especially in winter period, due to heating requirements. The houses are essentially heated by their owners. Turkish lignite coal representing an important amount of energy resources is of low quality. Although central heating systems are not very commonly used, they are getting more popular in metropolitan cities recently.

Despite of the improvement attained in fuel quality, especially in the lead percentage of liquid fuels, ratio of sulphur and benzene represent one of the most important problems due to the fact that the EU fuel quality standards are directly related to refinery investments.

Turkey has ratified international conventions on Long-Range Transboundary Air Pollution and Depletion of Ozone Layer, but has not signed the Convention on Climate Change.

Turkey attaches great importance on concluding voluntary agreements with various sectors and participation of these sectors in combating against pollution. In this respect, agreements have been signed on further regression of emissions with the cement industry and on equipping of the new automobiles with catalytic converters and simultaneous application of the same condition to imported motor vehicles with the Turkish Automotive Sector within the framework of a harmonization programme. Regular inspection of old vehicles since 1992 has also contributed to reduction of pollution due to motor vehicles.

b) EU Acquis

The list of the related EU acquis is provided in Volume II.

c) Implementing Institution

- The Ministry of Environment
- The Ministry of Health
- The Ministry of Energy and Natural Resources
- The Ministry of Industry and Trade
- State Planning Organization
- Provincial Governors' Offices
- Municipalities
- Turkish Standards Institute
- State Institute of Statistics
- Private Sector

d) Final Objective

Is to embody the above named Directives in the Turkish legislation. It shall be possible to become a party to Climate Change Framework Convention and the annexed Protocols of the

Long-Range Transboundary Air Pollution Convention of 1979 within the framework of common but differentiated liabilities.

II. Comparison of the EU acquis with the corresponding Turkish legislation and the measures to be taken for implementing the necessary amendments and modifications

a) The Corresponding Turkish Legislation

- Environment Law No 2872
- Law No 22918 on Highway Traffic
- Statutory Decree No 443 on the Establishment and Duties of the Ministry of Environment
- Regulation on the Protection of Air Quality
- Regulation on the Control of Hazardous Wastes
- Principles for the Planning of Vehicle Modifications TS-4980
- Security Rules for Storage of Crude Oil and Oil Products TS-4943
- General Regulations for Fuel Sales and Service Stations TS-6058
- Liquid and Diesel Fuel Storage Tanks TS-8991
- Circulars on Fuel Quality
- Regulation on the Manufacturing, Modification and Assembly of Vehicles
- Law No 1593 on Public Health
- Regulation on Unhygienic Settlements

b) Necessary Amendments and Modifications in the Corresponding Turkish Legislation

Certain amendments and modifications should be made in the provisions and standards of the Regulation on the Protection of Air Quality.

Regulation on Unhygienic Settlements and Law on the Establishment of Refik Saydam Centre for Public Work also need to be revised.

c) Necessary Institutional Changes

There is no current requirement for any amendment to be made in the existing institutional structure in the legislative harmonisation process. However, for an effective implementation of the legislation, the responsibilities of the Ministry of Environment and other related institutions should be clearly defined and the institutional structure of the Centre for Public Work should be modified.

d) Additional Requirements Stemming From Entry into Force of the New Legislation

The share of solid fuel consumption in heating of houses and the quality of liquid fuels on the market have a limiting effect on full harmonisation and implementation at the early stage. Thus, the investments should be completed in this field with high priority.

The location, number and qualifications of the stations to be established for countrywide monitoring and measurement of air quality should be defined. Furthermore, emission inventories are of significance in terms of reaching success in the management of air quality.

e) Additional Staff and Training Requirements for the Implementation of Amendments and Modifications

There is a current requirement for the employment of additional specially trained staff for the adoption of the acquis, implementation of the directives on air quality, issue of permits or approvals, supervisory activities, follow-up and monitoring of the facilities and activities, collection of data and analysis and reporting requirements.

f) Necessary Investments

There shall be a significant requirement for investments upon

The installation of air quality monitoring network and related quality assurance equipment,

Establishment of the required observation systems within the framework of the legislation based on international agreements (such as greenhouse gases, transboundary movement of pollutants, etc.), development of laboratory infrastructure,

Preparation of the inventory for greenhouse gas emissions and determination of their sources,

Modernization of the fuel production facilities for the production of fuel meeting the quality requirements of the legislation (such as the investments in refineries), realization of investments for pollution degradation in major fixed pollutant sources and for fuel replacement (such as the construction of desulphurisation facilities), and

Setting up of Emission Inventories and modelling studies.

II. Time Schedule

Short Term

- Adoption of certain sections of the proposal (98PC0415) made for the amendment of Directives No 89/369/EEC, 89/429/EC, 94/67/EEC and 88/609/EC;
- Determination of the provisions of 96/12 that relate to definition of regions and settlement areas as well as the warning levels, adoption of the provisions on public announcement mechanisms and designation of the authorized institutions, and training of the personnel of such authorized institutions;
- Starting the preparation of inventories for air pollutants and greenhouse gas emissions;

- Development of programmes for an effective implementation of the Directives and Decisions to be adopted;
- Determination of equipment requirements for the most effective practices possible (evaluation of the existing observation stations, designation of the number of stations to be improved and to be newly established, information network, equipment to be used in inspections, etc.);
- Making decisions on staff and training requirements for an effective implementation and execution of Directives and Decisions;
- Preparation of inventories on measurement stations, their locations and the measurement techniques used;
- Determination of the stations to be included in the observation network after completion of the necessary improvements and the locations where the new observation stations are to be installed;
- Development of criteria for the determination of settlement areas to be observed under the scope of the Framework Directive on Air Quality and preliminary evaluation of air quality (ozone issue will be attached importance in this respect);
- Development of a quality assurance programme and the definitions of the model techniques to be used;
- Start up of preparations of an emission inventory for air pollutants and development of programmes for air quality management.

Medium Term

- Exchange of opinion on the Directive No 88/609/EEC and the amendment Proposal thereof and the Directives No 99/13/EC, 94/63/EC, 97/68/EC, 98/70/EC, 99/13/EC and 99/32/EC;
- Adoption of the Directive No 96/62/EC and the annexed Directives thereof and the Council Directive proposal (98PC0415) amending 98/70/EC, 99/32/EC and 88/609/EEC;
- Adoption of the Decisions No 96/511/EC and 97/101/EC;
- Setting up of the emission inventories for all pollutant sources;
- Laying down of programmes for reducing of greenhouse gas emissions;
- Creating a monitoring and reporting system for air quality;
- Creation of a quality assurance programme and determination of the models that may be used;
- Preparation of emission inventories.

IV. Financing

Although it is estimated that the required investments would probably total around EURO 70 million, the final figures will be attained by the end of the studies. It is estimated that such studies would also require an additional expenditure of EURO 3 million.

1.1.3. Waste Management

I. Priority Description

a) Current Status

Domestic Solid Waste Management

Regulation on the Control of Solid Wastes was enforced on 14 March 1991 for the aim of controlling the adverse effects of domestic solid wastes stored irregularly. The Regulation sets forth the technical and administrative rules concerning the collection, transport, recycling and disposal of domestic wastes within a certain system throughout the country, as well as defines the legal sanctions to be applied for the collection and recycling of packaging wastes. Decreasing waste production, recycling of wastes and their disposal without harming the environment are the basic principles of waste management.

The total amount of solid wastes collected throughout Turkey reached 21 million tonnes in 1995. The studies conducted in Turkey on solid waste management are principally based on the assumption that the average per capita waste amount is 1 kg/day. Taking into consideration the population data of 1997 (approx. 63 million), one might assume that the daily domestic solid waste amount is around 63000 tonnes. According to the average results obtained from the studies related to composition of domestic solid wastes conducted by the State Institute of Statistics in 1993, the estimated Institute solid waste composition of Turkey is as follows: organic wastes (kitchen, park, garden, etc.) 65.45%, ash, slag, soil, stone 22.40%, recyclable wastes 12.07%.

In Turkey, the municipalities are authorized and responsible for the collection, transport, recycling and disposal of domestic solid wastes in accordance with the laws on municipalities No 1580 and 3030.

Within the framework of the regulation, there is a “quota system” based on the recollection of a certain amount of the plastic, metal, glass and laminated cardboard packages of liquid foodstuff and cleaning products put on the market. The responsibility to collect and make reuse of such packages is given to private sector.

Medical Wastes

The studies related to the management of medical wastes are considered apart from the domestic solid wastes. The studies on the collection, transport and disposal of such wastes are conducted under the Regulation on the Control of Medical Wastes issued on 20 May 1993.

According to the data of 1997 provided by the Ministry of Health, the total number of hospitals in Turkey is 1120 and the total number of beds 160.884. According to the data

provided by the State Institute of Statistics, the medical waste amount per bed is 2 kg/days, and the medical waste amount due to 65% occupancy rate is annually 76.000 tonnes. In accordance with the Regulation, the basic method applied in the disposal of medical wastes is incineration. The number of incineration plants is limited (6 plants) due to their high operational cost, thus the most preferable disposal method is the second option, which is land filling.

Hazardous Waste Management

So as eliminate illegal waste traffic from developed countries into Turkey, “Basle Convention” was signed in 1989 and was ratified in 1994. For the aim of setting up a hazardous waste management system, “Regulation on the Control of Hazardous Wastes” was prepared and was enacted in 1995. The waste categories and waste list given in the Regulation were adapted from the Basle Convention. Furthermore, these lists were detailed according to the conditions of our country. Importing of all kinds of waste materials into Turkey was prohibited through the Regulation on Hazardous Wastes Control Management. However, importing of scraps containing metal in the amount of 85% and more is subject to control. These controls are made by the Ministry of Environment since 1993. Moreover, dredging sludge, waste oils, chips, power plant ashes and medical wastes are included in the “Special Wastes” list in this Regulation. Recycling plants for hazardous wastes and final disposal plants are liable for receiving operating licences from the Ministry of Environment.

The Regulation on Hazardous Wastes Control Management consists of special rules for hazardous wastes, which includes stricter rules than those given in the EU Directives. The Regulation covers the characteristics of hazardous wastes, disposal ways, disposal criteria and processing. The waste list concerning the activities, which may lead to hazardous wastes and the general waste types to be controlled, was prepared with code numbers.

In recent years, through the amendment made in the Regulation on the Control of Hazardous Wastes, the said legislation was totally harmonized with the EU Directives (94/67/EC, 897/283/EC) on the incineration of hazardous wastes.

A project has been started on the Management of Hazardous and Special Wastes to cover Marmara, Aegean and Mediterranean Regions.

Transboundary Movements of Hazardous Wastes

Turkey ratified the “Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal” on 20 September 1994. The national legislation (regulation) on the control of hazardous wastes was prepared on the basis of the Basle Convention and was enforced on 27 August 1995.

The said Regulation provides a detailed explanation of the notification systems for transboundary movement of hazardous wastes, international movement forms, illegal traffic, rules on notification, controls with regard to the import and export of hazardous wastes, and rules on transit procedures. These issues are exactly in line with the Basle Convention.

The Regulation on the Control of Hazardous Wastes prohibits importing of all kinds of hazardous wastes into Turkey except for certain metal scraps.

Although the said Regulation is almost in line with the EU Directives, some arrangements are required in this respect.

Batteries and Accumulators

There does not exist a separate legislation for used batteries and accumulators. These matters are considered under the Regulation on the Control of Hazardous Wastes. However, a draft regulation has been prepared for used batteries and accumulators.

There is only one institution producing batteries in Turkey. Certain technological modifications should be made in the facility to enable the production of non cadmium batteries.

Landfill of Wastes

In Turkey there are three regulations on the landfill of wastes. These are the “Regulation on the Control of Solid Wastes” of 14 March 1991, “Regulation on the Control of Medical Wastes” of 20 May 1993 and “Regulation on the Control of Hazardous Wastes” of 27 August 1995. All the three Regulations are in line with the EU acquis in many aspects. However, there are some minor differences between the Turkish legislation and the EU acquis with regard to the application of natural and synthetic barriers.

Landfilling of wastes is a new practice for Turkey and the required level has not been reached yet in this respect. It is of great significance to close and properly rehabilitate the old irregular landfills. To this end, local authorities should be supported in planning, building and operating their regular landfills for wastes.

Waste Oils, Polychlorinated Biphenyls and Terphenyls

Turkey does not have separate regulations for waste oils, polychlorinated biphenyls and terphenyls. Such hazardous wastes are controlled by the “Regulation on the Hazardous Wastes Control Management”. Waste oils are classified as “special wastes” in this Regulation and the responsibility to prepare the new regulation on waste oil management has been given to the Ministry of Environment. In this respect, the draft regulation is being prepared in parallel to the related EU Directives.

In this context, the monitoring system for the creation, collection and transport of wastes, market registry system, waste oil minimization and recycling technologies and the training of the experts working in this field are among the priorities. Furthermore, some difficulties are encountered in analysing polychlorinated biphenyls and polychlorinated terphenyls.

Packaging and Package wastes

The studies on the collection, reuse and recycling of packaging wastes are currently conducted under the scope of the “Regulation on the Control of Solid Wastes” and in line with the principles laid down in the Directive No 85/339/EEC in Turkey. There exists a collection, reuse and recycling obligation to a certain extent especially for the plastic, metal, glass and laminated glass packages of liquid food and cleaning products as well as boxes.

Nevertheless, the existing regulation does not cover all products and packages while the package production and packed product consumption increases at a very high pace. Operating

of landfills by many municipalities, separate collection of such wastes before being transferred to the landfills and recycling of the collected wastes are very important for national economy. The collection and recycling responsibility of the related industrial sectors brought by the existing regulation will be enlarged in line with the scope and objectives of the directive leading a sound and reliable inventory and a common coding system, thus raising awareness and responsibility sharing in the public. To this end, the “Regulation on Package Wastes” is being prepared on the grounds of the Directive No 94/62/EEC and the Decisions No 97/129/EC and 97/138/EC annexed to this Directive.

There is a requirement for technical assistance of the countries having adequate level of experience in this field, and especially technology transfer and financing will be required for compliance with standards on the heavy metal content of packages, installation of new recycling plants and modernization of the existing ones.

b) EU acquis

The list of the related EU acquis is provided in Volume II.

c) Implementing Institution

Legislative harmonization studies on waste management issues under the responsibility of the Ministry of Environment are conducted in coordination with the Ministry of Industry and Trade, Ministry of Agriculture and Rural Affairs, Ministry of Interior, Ministry of Health, Ministry of Public Works and Settlement, Turkish Standards Institute, Municipalities, Under-Secretariat for Foreign Trade, Turkish Trade Chambers and Stock Exchanges and the Union of Chambers of Commerce, Industry and Maritime Commerce and Commodity Exchanges of Turkey.

d) Final Objective

Is to define the plans and programmes for harmonization of the Turkish legislation on waste management with the EU acquis, and to identify and implement the duties of the regarded institutions and organizations.

Is to have the Turkish legislation on the management of hazardous wastes aligned with the related EU acquis. Environmental standards will be set and implemented as the result of studies for environmental protection. In this respect, it shall be among the priorities to make the regional waste management plans, management of oils, batteries and accumulators and environment-friendly disposal of wastes such as power plant ashes, package wastes, etc.

Turkey supports the Decisions II/12 and III/1 of the Basle Convention “prohibiting the transport of hazardous wastes from the countries listed in Annex VII of the Convention to the countries not covered in this list not only for final disposal, but also for purposes such as recycling and reuse, etc.”. The process for the adoption of Decision III/1 have been completed and the ratification process will start soon.

II. Comparison of the EU acquis with the corresponding Turkish legislation and the measures to be taken for implementing the necessary amendments and modifications

a) The Corresponding Turkish Legislation

In accordance with Article 8 of the Environment Law No 2872 published in 1983 “it is prohibited to discharge to the receiving environment, store, transport, remove all kinds of wastes and residues directly or indirectly in a way that would harm the environment and that would be against the standards and regulations”, and the legislation in force can be listed as follows:

- Regulation on the Control of Solid Wastes (14 March 1991),
- Regulation on the Control of Medical Wastes (20 May 1993),
- Regulation on the Control of Hazardous Wastes (27 August 1995)

Furthermore, the legislation, which may be relevant in this respect can be named as follows:

- Law No 3030 on the Administration of Greater Municipalities
- Law 11580 on Municipalities
- Law No 1593 on Public Health
- Law No 3572 on Starting Business and Issuance of Work Permits
- Regulation on Unhygienic Settlements

b) Necessary Amendments and Modifications in the Corresponding Turkish Legislation

Necessary amendments will be made in the Regulation on the Control of Solid Wastes (14 March 1991), Regulation on the Control of Medical Wastes (20 May 1993) and the Regulation on the Control of Hazardous Wastes (27 August 1995) for harmonisation with the EU acquis.

The regulations, which are still in the form of a draft but projected to be finalized, are the Regulation on the Control of Waste Oils, Regulation on the Control of the Collection, Transport and Disposal of Waste Batteries and Accumulators, Regulation on the Control of the Disposal of Power Plant Wastes and Ashes, Regulation on the Control of Package Wastes, Regulation on the Control of Waste Tyres, Regulation on the Control of Treatment Sludge, and Regulation on the Use of Wastes in Cement Mills as an Alternative Fuel.

Specialized customs offices will be set up and the related personnel will be trained on the control of the entry and exit of wastes at the Customs by making amendments in the Regulation on the Control of Hazardous Wastes. Thus, it will be possible to ensure swift and direct exchange of information between the related institutions and authorities. Also, environmental auditory units will be established to make inspections in internal transport.

c) Necessary Institutional Changes

It is of great significance to strengthen the administration both at the central and local level of government for the implementation of waste management systems. It is necessary to employ sufficient number of qualified personnel and to apply the required training programmes, also to determine the amount and content of the hazardous waste inventories on a regional base.

It is required to prepare management plans and required investment programmes for the purpose of ensuring harmonization with the Directive No 91/689/EEC on hazardous wastes.

d) Additional Requirements Stemming From Entry into Force of the New Legislation

With regard to the management of hazardous wastes, it is necessary to prepare training programmes, set up a hazardous waste information system in line with the list of hazardous wastes and the data available thereon, and also to put into service the planning systems for the hazardous waste management.

e) Additional Staff and Training Requirements for the Implementation of Amendments and Modifications

Harmonization of the waste management practices with those of the Community and the implementation thereof will raise an additional staff requirement both at the central organization and the provincial offices. This requirement will be mainly for specially trained personnel.

III. Time Schedule

Short Term

Inventory preparations and legal arrangements

Medium Term

Implementation of waste management projects

IV. Financing

Financing requirement is estimated around EURO 20 million for legislative harmonization and related practices, and more detailed and specific studies should be conducted to figure out the amount required for infrastructure works.

1.1.4. Water Quality

I. Priority Description

a) Current Status

“Regulation on the Control of Water Pollution” being in concordance with the provisions of the Environment Law No 2872 was enforced after being published in the Official Gazette No 19919 of 4 September 1988.

In general terms, Turkey has many water resources distributed unevenly throughout the country. Turkey is geographically divided into 26 water basins with regard to surface waters. However, more than half of the surface flows is obtained from the 6 main basins, which are the Tigris, Euphrates, Eastern and Western Black Sea, Antalya and Western Mediterranean. Euphrates basin (which covers 15% of the total area in Turkey with a water volume of 32

billion m³) is the biggest of these basins. 200 natural lakes (50 of which have a surface area of more than 50 km²) cover an area of about 1 million hectares, which represent 1% of the country's total surface area. Van Lake in Eastern Anatolia (374.000 hectares) and Salt Lake in Middle Anatolia (128.000 hectares) are the largest ones.

The total annual ground water yield is 41 billion m³, 12 million m³ of which is estimated to be technically and economically exploitable. 8 billion m³ is currently being exploited (55% for irrigation, 45% for drinking water and industrial purposes). One fourth of the existing ground water reserves are kept at the Euphrates and Sakarya water storage basins.

The rapid social and economic developments taking place in our country lead to a severe increase in water requirement. These developments increase the water demand, on one side, but also threaten the existence of water resources of proper quality for various purpose of uses and restrict multipurpose consumption of water resources.

The quality of inland waters (rivers, natural and artificial lakes) was evaluated on the basis of 20 parameters (pH, oxygen, suspended and dissolved solid substance, nitrate, phosphor, ammonium, faecal coliform and some heavy metals). On the grounds of this evaluation, four classifications were made in the Regulation on the Control of Water Pollution.

The Regulation on the Control of Water Pollution puts forward the criteria to classify the ground waters in 3 categories and surface waters in 4 categories making it possible to make water quality planning.

The Regulation sets forth the principles for the discharge of wastes into ground and surface waters as well as the regions under protection and land use strategies in terms of the reservoirs and lakes used for drinking water purposes.

DSI (State Hydraulic Works) continuously monitors the water quality in two natural and two artificial lakes, and in four rivers. Furthermore, the water quality of 126 lakes is also periodically monitored in parallel to the measurements in ground water quality. The monitoring works, which were started with 65 sampling points in 1979, reached a number of 1080 points in 1996. DSI laboratories have been equipped in a way to measure 40 parameters. State Institute of Statistics started collecting this data together with the other information on water in 1998. However, no data bank has been established yet in Turkey to monitor water quality.

Ministry of Health has been conducting these works in line with the standards on drinking and tap water quality published by the Turkish Standards Institute in 1984 and within the framework of the "Regulation on the Production, Packaging and Sales of Natural Spring Waters, Mineral Waters, Drinking and Medical Waters".

Within the context of the European Blue Flag Campaign, the microbiological quality of coastal waters is analysed in fifteen-day intervals in some beaches and marinas throughout the tourism season.

River pollution, which is mostly due to industrial and domestic wastewaters, is intensely encountered in areas with high urban and industrial concentration.

Rivers carry away the pollution due to agricultural activities (BOI, KOI, phosphor, nitrogen) to the coastal waters of the Mediterranean. Industrial wastewaters, which represent less than 1% of the total wastewaters discharged, contain highly toxic substances such as mercury, lead, chrome and zinc. Wastewater discharges into the Aegean Sea is increasing in parallel to the developments in tourism. The pollution observed all the way through the Black Sea coasts is due to natural reasons and the wastewaters carried by major rivers. The BOI and KOI loads entering the Marmara Sea come from the industries in İstanbul and İzmit.

Water consumption intensity increased from 7% of the existing resources to 15% thereof in the period between 1980 and 1997 (which is close to the OECD Europe average). It is estimated that this ratio would reach a higher level upon completion of the ongoing and projected water works. The share of irrigation is fairly high in total water consumption. The maintenance and renovation works in water supply networks are mostly delayed or cannot be planned.

Moreover, Turkey has ratified the below specified international conventions and protocols in water management issues, and has been conducting her works in this respect.

Convention for the Protection of the Mediterranean Against Pollution (BARCELONA CONVENTION) (Official Gazette No 17368 of 12 June 1981)

- Protocol for the Protection of the Mediterranean Against Pollution Caused By Discharges from Vessels and Planes, Barcelona 1976 (Official Gazette No 17368 of 12 June 1981)
- Protocol for Cooperation and Combat Against Pollution of the Mediterranean with Oil and Other Dangerous Substances under Extraordinary Conditions, Barcelona 1976 (Official Gazette No 17368 of 12 June 1981)
- Protocol for the Protection of the Mediterranean Against Land Based Sources of Pollution, Athens 1980 (Official Gazette No 19404 of 18 March 1987)
- Protocol for Specially Protected Areas in the Mediterranean, Geneva 1982, (Turkey 6 November 1986), (Official Gazette No 19968 of 23 October 1988)

International Convention on the Prevention of Pollution in Seas Caused By Vessels, (MARPOL-73 CONVENTION) (Cabinet Decree No 89/14547 of 13 September 1989) (Official Gazette No 20558 of 24 June 1990)

Convention on the Protection of Black Sea Against Pollution (BUCHAREST CONVENTION) (Signed 21 April 1992) (Official Gazette No 21869 of 6 March 1994)

- Protocol for the Protection of the Marine Environment of Black Sea Against Land Based Sources of Pollution
- Protocol for Cooperation in Emergency Situations Against the Pollution of Black Sea Marine Environment by Petroleum and Other Dangerous Substances
- Protocol for the Prevention of Pollution in Black Sea Marine Environment Due to Dumping

Drinking Water

About 78% of the urban population and 62% of the rural population have access to healthy and sufficient drinking water whereas no adequate amount of drinking water is supplied to 20% of the urban population and 17% of the rural population. Besides, no drinking water is supplied to 2% of the urban population and 21% of the rural population at all. The annual per capita drinking water consumption is 74 m³, which is well below the values in Europe reaching an average of 100 m³.

According to the recent data, 58% of the 3216 municipal areas, in which the Bank of Provinces and Ministry of Tourism are active, have drinking water supply network while 4% thereof have drinking water treatment facilities.

According to the data of 1995, one fourth of the 35.000 villages receiving services of the Directorate General for Rural Affairs have sufficient amount of drinking water whereas 15% of them have drinking water supply of insufficient quality. 7% of those villages do not receive any drinking water at all.

In 1997, the bacteriological and chemical quality of drinking water was found to be unacceptable in 12% of the samples taken nationwide. The number of the beaches being rewarded with Blue Flags due to their bathing water quality, increased from 12 in 1994 to 64 in 1999.

The Drinking Water Standard TS 266 covers the recommended values and maximum limit values. However, this standard does not express any limitation on chloral-organic components.

Infrastructure

It is the central government that provides the largest share in the financing of urban water, sewerage and treatment facilities. This financing is made through the Municipalities Fund under the authority of the Bank of Provinces. Besides the financing provided by the Bank of Provinces, the municipalities may borrow money from external resources (under the guarantee of the central government) to finance their major projects. Private sector's participation is very limited in sharing the costs for infrastructure investments.

In late 1960's, design and construction works for urban drinking and utility water supply were started under the leadership of the Bank of Provinces. In 1970's, 11 sewerage systems were constructed by the Bank of Provinces. In 1980's, on the other hand, 75 sewerage systems were installed in greater municipalities by the newly established Water and Sewerage Administrations. One fourth of these 86 systems represent only network facilities while the rest of it are the treatment facilities. 250 municipalities having submitted their proposals for sewerage projects are still waiting for the inclusion of those projects in the investment program of the Bank of Provinces.

The construction works of the wastewater treatment facilities and deep sea discharges were started early in 1980's. The Bank of Provinces has completed the construction of thirtysix wastewater treatment facilities, twentynine deep sea discharge systems and 163 sewerage systems. The construction of additional twentyseven wastewater treatment plants and eighteen deep sea discharge systems still continue. The central wastewater treatment facility of Ankara

was completed in 1997. Seventeen deep sea discharge projects have been concluded whereas the construction of another fourteen is still underway.

Minor progress has been achieved in terms of domestic wastewater treatment. Recently, about 62% of the population was connected to the sewerage system in the municipalities having a population of more than 3000 whereas only 12% was provided with access to wastewater treatment system. 70% of the treatment is primary while the rest of it is secondary. 11% of the 2800 municipalities having access to the services of the Bank of Provinces and the Ministry of Tourism has sewerage networks and 2% (meaning 65 municipalities) has wastewater treatment facilities. Only 0.3% of the villages of the 35.000 villages under the responsibility of the Directorate General for Rural Affairs is connected to the sewerage system.

Turkish legal arrangements on urban wastewaters are in approximation with the EU Directive on Urban Wastewater Treatment of 1991, however there is not any clear obligation for the municipalities having a population of more than 2000 to collect their wastewaters. The highest permissible BOI concentration is two times higher in the Turkish legislation, and there is no limit value for the total nitrogen and phosphorous concentrations in the discharge of urban wastewaters.

The fundamental problem for domestic wastewaters is that both in terms of the provisions of the regulation and the discharge limits and also the process selection for the treatment system, totally neglect the characteristics of the receiving environment.

Industrial Wastewater

One fourth of the 1870 companies with an employment capacity of more than 25 people was equipped with wastewater treatment facilities in early 1990's (according to the data provided by the last existing study). About half of the companies being equipped in this way are located in Marmara basin. More than 80% of the treatment is primary treatment, whereas 15% represent secondary (biological) and less than 5% advanced treatment. In closed or semi-closed bays and recesses such as İzmir Bay, wastewater is discharged to the sea following biological treatment. Three fourth of the wastewater coming from state enterprises is discharged without any treatment. This ratio is represented by 46% in the private sector. Also, as regards the measurements with respect to total load (public and private sectors), it becomes evident that 75% of the industrial waters is discharged (mainly into the sea and less frequently into rivers) without any treatment, 20% following treatment and the remaining 5% following preliminary treatment (mainly to rivers and less frequently to urban sewerage). Since half of the 190.000 companies (with number of employees less than 25) are active in highly-polluting sub-sectors such as textile/clothing/tanning and metal/machinery/hardware and one third thereof in sectors such as food/beverage/tobacco and forest products/furniture, they cause a severe wastewater pollution problem. Only one third of those companies are located in small industrial zones while 1.4% thereof is active in organized industrial zones.

Although industrial enterprises are allowed to discharge their wastewaters into sewerage systems and deep sections of the sea, the companies may also be asked to apply preliminary treatment before discharging. It is prohibited to discharge dangerous substances into receiving water bodies. The permission procedure has been applied since 1989. Wastewater standards have been set besides the basic principles to be followed for different industries and dischargeable substances. Very strict rules have been put into practice especially for the areas used for fish farms. Discharge permits is subject to renewal in three-year intervals. Permit

request may be rejected or the permit previously issued may be withdrawn to prevent adverse environmental impacts (such as direct discharge into excessively polluted areas).

All pollutant sources are subject to permit under the Regulation on the Control of Water Pollution, and the industries are divided into 16 categories in terms of their discharges into receiving environment. Some voluntary agreements have been signed between the Ministry of Environment and the industries to construct wastewater treatment facilities.

b) EU acquis

The list of the related acquis is provided in Volume II.

c) Implementing Institution

- The Ministry of Environment
- The Ministry of Energy and Natural Resources
- The Ministry of Agriculture
- The Ministry of Tourism
- The Ministry of Health
- Navy
- The Prime Ministry, Under-Secretariat of Maritime Affairs
- Turkish Standards Institute
- Directorate General for State Hydraulic Works
- Bank of Provinces

Coast Guard, Coastal Safety and Vessel Rescue Administration as well as State Railway Authority of the Republic of Turkey, State Maritime Enterprise, Pipeline Transportation Authority and refineries

Besides, coordination is provided with the related associations, institutions and organizations.

d) Final Objective

Is to harmonize the existing laws, regulations, communiqués and Turkish standards on water pollution management with the EU acquis and to implement them accordingly.

II. Comparison of the EU acquis with the corresponding Turkish legislation and the measures to be taken for implementing the necessary amendments and modifications

a) The Corresponding Turkish Legislation

- Environment Law No 2872

- Regulation No 19919 on the Control of Water Pollution
- Law No 1380 on Water Products (The Ministry of Agriculture and Rural Affairs)
- Law No 6200 on the Establishment and Duties of the Directorate General for State Hydraulic Works
- Law No 3621 on Coasts
- Law No 167 on Ground Waters
- Statutory Decree No 443 on the Establishment and Duties of the Ministry of Environment
- Regulation 7/6719 on Fishery Products
- Regulation on the Procedures to be Applied and Receipts to be Used for the Fines Imposed on Vessels and Sea Vehicles for Identification of the Violation (No 19623 of 3 November 1987)
- Related Turkish Standards
- Communiqués under the Regulation on the Control of Water Pollution
 - Communiqué on Dangerous and Hazardous Substances in Water enforced after being published in the Official Gazette No 20106 of 12 March 1989
 - Communiqué on Administrative Procedures enforced after being published in the Official Gazette No 20106 of 12 March 1989
 - Communiqué on Sampling and Analysis Methods enforced after being published in the Official Gazette No 20748 of 7 January 1991
- Communiqué on Technical Procedures enforced after being published in the Official Gazette No 20748 of 7 January 1991
- Law No 2560 on the Establishment and Duties of İstanbul Water and Sewerage Administration
- Statutory Decree No 181 on the Establishment and Duties of the Ministry of Health
- Regulation on Discharge of Wastewaters into the Sewerage Network
- Regulation on Unhygienic Settlements
- Regulation of 1973 on the Pits to be Excavated in Places Where It Is Not Possible to Construct Sewer Systems
- Law No 1580 on Municipalities
- Law No 3030 on the Administration of Greater Municipalities

- Law on Harbours (20 April 1941, Official Gazette No 95)
- Law No 1593 on Public Health
- Regulation on Environmental Impact Assessment (29 June 1997, Official Gazette No 23028)

b) Necessary Amendments and Modifications in the Corresponding Turkish Legislation

- Amendment and adaptation in the legislation concerning the Regulation on the Control of Water Pollution and the related communiqués
- Related Turkish standards TS 266, TS 3417, TS 2553, TS 1424, TS 5089, TS 5090, TS 5206, TS 5106, TS 6291)
- Amendment and adaptation in the Regulation on Fishery Products (Law No 1380 on Fishery Products) and the circulars

c) Necessary Institutional Changes

The central and provincial offices of the Ministry of Environment should be strengthened. There is a requirement for especially trained and qualified personnel and administrators. Since more coordination is required, inland waters and coastal waters should be managed in concordance with each other. Furthermore, for the high-quality ground waters to be accessible only by high-quality purpose of uses, coordination of ground and surface waters should be ensured leading to co-management of ground and surface waters.

In environmental infrastructure investments, privatisation should be accelerated and the private sector participation should be emphasized.

d) Additional Requirements Stemming From Entry into Force of the New Legislation

Adoption of the EU acquis makes it an obligation to amend the legislations of the related institutions and organizations and/or to set up a new legislation. Completion of the harmonization works thereunder will compel revision of the existing systems and realization of new investments.

e) Additional Staff and Training Requirements for the Implementation of Amendments and Modifications

Adoption of the EU acquis on water pollution will necessitate a notable increase in the number of the personnel currently employed for the control of water pollution.

f) Necessary Investments

The investments and investment costs that would arise for the implementation of the modifications cannot be estimated presently.

III. Time Schedule

Short Term

- Preliminary works for legislative requirements
- Legislative works

Medium Term

- Harmonization of legislation
- Design of programmes for improvement and remediation of water quality
- Design of local programmes for the prevention of water pollution
- Building and construction of wastewater treatment facilities and sewerage systems, laying down of the related time schedule
- Modernization of the monitoring systems for ground and surface waters
- Construction of sewerage systems and treatment facilities (including in industries)
- Construction and establishment of rural infrastructure

IV. Financing

The investments to be made and their costs will be determined later.

1.1.5. Nature Protection

I. Priority Description

a) Current Status

The fact that Turkey is situated on the transition point between the continents, Europe, Asia and Africa, that she is surrounded with three seas with different ecological characteristics from three sides and also that there are elevation differences being as high as 5000 meters from the sea level and the climate diversity arising in consequence, enriched the biological diversity. The ecosystem mosaic with differentiating ecological characteristics provided shelter to thousands of animal and plant species as well as their races and populations. Another factor to amplify this richness is that two out of the four migration ways of the birds in western Palearctic Region pass through Turkey.

In Turkey, more than 9000 plant species have been identified. Out of this 9000, about 3000 can be classified as endemic species. The variety of the animal species is estimated around 80000. Turkey is, at the same time, one of the most important gene centers of the world.

28% of the land existence is represented by pastures, 20% by forests and 2% by wetlands.

In Turkey, more than one authority, namely the Ministry of Environment, Ministry of Forestry, Ministry of Agriculture and Rural Affairs, Ministry of Culture, is responsible for the protection of wildlife and natural habitats. Every institution declares protection zones within the framework of the authority vested to them by the laws, makes plans for those zones or sets forth the principles for conservation-utilization.

In Turkey there exist thirtytwo Natural Parks, thirtyfive Nature Protection Zones, fifteen Nature Parks, fiftyfour Nature Monuments declared as per the Law on Natural Parks; 699 protected sites declared as per the Law on the Protection of Cultural and Natural Heritage; thirteen Specially Protected Environment Areas declared as per the Statutory Decree on Establishment of Authority for Specially Protected Environment Areas; 118 Wildlife Protection Areas declared as per the Law on Land Hunting. Furthermore, nine of the internationally important wetlands are included in the Ramsar Convention List. In Turkey, the proportion of the areas protected to the surface area is around 2%. It is expected that 1% of the protected areas would be included in NATURA 2000 information network. Besides the areas under protection, it is planned to include some of the potential areas in the network.

It can be listed among the advantages of Turkey in harmonization process to the EU that Turkey succeeded in preserving a significant amount of her natural areas despite of the intensive pressure on her natural resources; that the country possesses a tradition for the protection of nature in both legal and institutional senses for more than 40 years; that nature protection awareness is well developed in the public; that especially voluntary NGOs take part in protection projects and activities and get more effective in decision-making processes gradually; and that international conventions were ratified by Turkey and international relations are strengthened in this respect.

Turkey has become a party to BERN, RAMSAR, CITES and Biodiversity Conventions. The studies on the preparation of regulations for the Implementation of Regulations of those conventions still continue by also considering the related provisions of the EU Directives.

The Ministry of Environment has prepared the “Draft Law on the Protection of Animals” to prevent unjust treatment to all animals, mainly pets, due to human fault or natural reasons, to provide care, to protect them against ill-treated behaviours and to facilitate their reproduction and protection of their health. Article 11 of this Law sets forth provisions on test animals.

In spite of the stress on the natural resources, the succession in the protection of wild life and natural habitat is achieved by the rooted legal and institutional past of Turkey. Law No 3167 on Land Hunting dated 1937 and Law No 3116 on Forestry (where the protected forests are defined), are the laws that should be handled primarily in the scope of protected area studies. Then Law No 6831 on Forestry dated 1956 (defining the Natural Park concept in it’s 25th item) is follows. Until 1983, when the Law No 2873 on Natural Parks put into force, seventeen natural parks, six biogenetic reserves and two biosphere reserve areas are declared by this law (Law No 6831). Afterwards, Law No 2873 on National Parks as the basic law on natural protection is put into force in 1983. Draft law on the Amendment of Law No 3167 on Land Hunting is in the agenda of the Turkish Parliament.

b) EU acquis

The list of the related EU acquis is given in Volume II.

c) Implementing Institution

- The Ministry of Environment
- The Ministry of Forestry
- The Ministry of Agriculture and Rural Affairs
- The The Ministry of Culture
- Under-Secretariat of Foreign Trade
- Under-Secretariat of Customs
- The Ministry of Public Works and Settlement
- Directorate General for Rural Affairs
- Directorate General for State Hydraulic Works
- TÜBİTAK (Turkish Scientific and Technical Research Institution)
- Universities
- Non-governmental organizations

d) Final Objective

Is to include, at the first stage, 1% of the protected areas of the country into NATURA 2000 Network, to ensure full alignment with the EU regulations and to implement NATURA 2000 network practices.

CITES Convention is a written instrument, which is fairly difficult to implement unless sufficient level of customs measures are taken. In parallel to the provisions of the Convention, National Implementing Regulation for CITES Convention is being prepared by considering the EU practices. Upon the enforcement of the Regulation, controlled transits at customs gates will be possible for the aim of preventing the plant and animal species under the threat of extinction from getting adversely affected by international trade.

II. Comparison of the EU acquis with the corresponding Turkish legislation and the measures to be taken for implementing the necessary amendments and modifications

a) The Corresponding Turkish Legislation

- Environment Law No 2872
- Statutory Decree No 443 on the Establishment and Duties of the Ministry of Environment
- Statutory Decree No 388 on the Establishment of the Authority for Special Environment Protection

- Law No 6831 on Forestry
- Law No 3800 on the Establishment and Duties of Ministry of Forestry
- Law No 2873 on National Parks
- Law No 3167 on Land Hunting and the Decisions of the Central Hunting Commission published annually
- Law No 2863 on the Protection of Cultural and Natural Heritage
- Law No 1380 on Fishery Products and the circulars published annually
- Law No 4041 on the Ratification of CITES Convention
- Law No 3285 on Animal Health

b) Necessary Amendments and Modifications in the Corresponding Turkish Legislation

It is foreseen to complete the administrative and technical arrangements started for the preparation of the national legislation on habitat protection under the international conventions we have ratified in a way to comprise the matter stipulated in the Directive (92/43/EEC) on the conservation of natural habitats and of wild fauna and flora. The Framework Law on the Protection of Nature will be prepared, and the articles contradicting with the EU Directive will be omitted and aligned.

The “Draft Regulation on the Protection of Wetlands” will be revised and harmonized within the framework of the provisions of the EU Directive (79/409/EEC) and by considering all the aspects of the legislation, mainly the Law on Land Hunting.

The arrangements to ensure a more effective nature protection are to be realized through the projects to be put into practice from GEF resources.

Upon the enactment of the CITES National Implementing Regulation, communiqués will be issued for implementations in line with the provisions of the regulation.

Concerning the natural habitat, protection of flora and fauna related directive, the basic Law No 2873 on National Parks will be harmonized with the criteria and statutes of World Nature Protection Union.

c) Necessary Institutional Changes

The capacities of service producing institutions on nature protection (especially The Ministry of Forestry, The Ministry of Agriculture and Rural Affairs, The Ministry of Culture) should be strengthened and in this context, the results on institutional strengthening area of the project “Biological Diversity and Natural Resources Management” should be implemented.

d) Additional Requirements Stemming From Entry into Force of the New Legislation

Reevaluation of the existing statutes and protected areas according to the new arrangements.

Initiation of the nature protection related harmonization studies in order to construct a national strategy and work plan via establishment of a technical comity.

e) Additional Staff and Training Requirements for the Implementation of Amendments and Modifications

As regards the adoption and implementation of the acquis, there is a current requirement to put into practice a foreign language training scheme and a national-international training programme (internship courses, etc.) for the personnel employed or to be employed in getting acknowledged, interpreting and implementing the acquis. Also, the personnel should be trained on the use of Internet extensively.

f) Necessary Investments

There is a current requirement to install the information network and computer system required for access to the legislation and information, and to establish GIS centres for monitoring and evaluation purposes in protected areas.

For the animals seized at the customs offices or at various sales points due to illegal trading for the aim of providing a healthy environment until the completion of the related customs proceedings, "Care Centres" should either be created or established at the national zoos, and it is also required to establish "Rescue Centres" either within local zoos or individually.

III. Time Schedule

Short Term

Under the scope of the GEF Project, the laws on the protection of nature will be revised and the requirements for amendments, modifications and revisions will be defined by making comparisons with the EU acquis.

In line with the provisions of the CITES Convention enforced on 22 December 1996 in Turkey, it is required to prepare the CITES National Implementing Regulation until October 2001.

The Law on the Protection of Animals is expected to be legalised.

Medium Term

The necessary amendments will be made, new arrangements will be drafted and brought before the Parliament.

All the areas under the scope of NATURA 2000 will be included under the observation system.

IV. Financing

The financing requirement to arise due to legal amendments, newly established institutions, launching of a monitoring evaluation system, setting up an inventory, preparing plans for the

areas protected under NATURA 2000 network, translation works, ecological training, organizing seminars and workshops and putting into practice the requirements of the CITES Convention, will be determined in parallel to related studies.

1.1.6. Chemicals and genetically modified organisms

4.23.6.1 Chemicals

I. Priority Description

a) Current Status

In accordance with Article 13 of the Environment Law No 2872, protection of the environment is essential in the production, import, transport, storage and use of the persistent chemicals distorting the ecological balance in air, water or soil.

“The Regulation on the Control of Dangerous Chemical Substances and Products” covering the management of industrial chemicals having adverse effects on the environment and human health was prepared under the Environment Law by considering the related Directives of the European Union, and was enforced in 1993.

This Regulation,

- Arranges the import, labelling, packaging, sales and storage of dangerous substances and preparations,
- Defines the responsibilities of those working with dangerous substances and preparations,
- Brings along prohibitions and restrictions on the use and marketing of Asbestos and Polyhalogenous Organic Compounds and mixtures thereof,
- Identifies the maximum mercury amounts to exist in the batteries and accumulators.

The labelling information, risk symbols and combinations, security expressions and combinations, danger signs and expressions of 500 chemical substances are enlisted in the Annex of this Regulation.

Import of the chemical substances prohibited and restricted by this Regulation and some other major chemicals are controlled as per the Legislation on Foreign Trade and the Decisions on Foreign Trade Regime.

Under this Regulation the Chemical Security Commission has been set up under the coordination of the Ministry of Environment from among the representatives from the related authorities such as the Ministry of Health, Ministry of Agriculture and Rural Affairs, Ministry of Labour and Social Security, Ministry of Industry and Trade, Under-Secretariat of Foreign Trade and Under-Secretariat of Customs and the universities and representatives from the

industry for the aim of making decisions on the efficient management of chemicals and conducting the necessary works.

The Regulation should be revised for full harmonization with the EU acquis. The related studies have been started together with the Chemical Security Commission.

Turkey has signed the “Rotterdam Convention” on prenotified acceptance system to be applied in the international trading of certain chemical substances and pesticides. The studies are still ongoing for Turkey to be a party to the Convention.

Turkey is a party to the “Montreal Protocol”.

b) EU Acquis

The list of the related EU acquis is provided in Volume II.

c) Implementing Institution

- The Ministry of Environment
- The Ministry of Agriculture and Rural Affairs
- The Ministry of Industry and Trade
- The Ministry of Health
- The Ministry of Labour and Social Security
- Under-Secretariat of Foreign Trade
- Under-Secretariat of Customs
- Turkish Standards Institute

d) Final Objective

Is to adopt and implement the related EU acquis.

II. Comparison of the EU acquis with the corresponding Turkish legislation and the measures to be taken for implementing the necessary amendments and modifications

a) The Corresponding Turkish Legislation

- Environment Law No 2872
- Regulation No 21637 on the Control of Noxious Chemical Substances and Products (1993)
- Regulation No 23865 Amending the Regulation on the Control of Noxious Chemical Substances and Products (1999)

- DTS on the Substances and Wastes Kept Under Control for the Protection of Environment
- Communiqué No 2000/7
- Communiqué No 98/13 on the Import of Certain Substances Affecting the Laborers' Health

b) Necessary amendments and Modifications in the Corresponding Turkish Legislation

- Revision of the Regulation on the Control of Noxious Chemical Substances and Products
- Preparation of the Communiqué on the List of Dangerous Substances
- Preparation of the Communiqué on testing methods
- Preparation of the communiqué on the classification of dangerous substances and preparations and the determination of the labelling information
- Preparation of the communiqué on assessment of risks of the existing substances
- Rearrangement of the matters pertaining to the use and marketing of asbestos and polyhalogenous organic compounds
- Arrangement of the restrictive provisions on the marketing and use of other substances and preparations as per the community directive
- Preparation of the communiqué on the content and format of Security Information Forms

c) Necessary Institutional Changes

No change is required in the existing institutional structure in the harmonization process.

d) Additional Requirements Stemming From the entry Into Force of the New Legislation

- Preparation of the inventory for chemical substances
- Setting up of the label control system
- Establishing the risk assessment group or commission
- Preparation of the list of existing and new substances

e) Additional staff and Training Requirements for the Implementation of Amendments and Modifications

There is a current requirement to employ 10 experts for an effective enforcement of the legislation on the management of chemicals.

Within the framework of the abovementioned works, technical assistance and training should be provided on the below specified matters:

- Harmonization of the chemicals legislation and implementation methods,
- Risk assessment, labelling and classification of chemicals,
- Preparation of the chemicals inventory, launching of a registry system and preparation of the list of priority chemicals

f) Necessary Investments

Necessary equipment for capacity increase and communication network

III. Time Schedule

Short Term

- Enforcement of the revised version of the Regulation on the Control of Dangerous Chemical Substances and Products
- Enforcement of the communiqué on the list of dangerous substances
- Enforcement of the Regulation on the classification of dangerous substances and preparations and determination of their labelling information
- Enforcement of the new asbestos provisions
- Enforcement of the communiqué on the content and format of Security Information Forms

Medium Term

- Preparation of the communiqué on the risk assessment of existing substances
- Preparation of the communiqué on test methods
- Preparation of the chemicals inventory
- Preparation of the list of existing substances
- Laying down the provisions on the marketing and restriction of other substances and preparations as per the community directive
- Preparation of the Drafts on mixtures containing PCB, PBB and PCT substances

IV. Financing

The amount and financing requirements of the necessary expenditures are to be determined later.

4.23.6.2 Genetically Modified Organisms

I. Priority Description

a) Current Status

In Turkey, there does not exist any legal arrangement on the genetically modified organisms, precautionous release of such organisms to the environment and the way they are put out in the market.

b) EU Acquis

The list of the related EU acquis is provided in Volume II.

c) Implementing Institution

- The Ministry of Environment
- The Ministry of Agriculture and Rural Affairs
- The Ministry of Health
- Under-Secretariat of Foreign Trade
- Under-Secretariat of Customs
- Turkish Standards Institute

d) Final Objective

Is to adopt and implement the related EU acquis.

4.23.6.2 Principles of good laboratory practice (GLP), the verification of their applications for tests on chemical substances and inspection and approval of GLP

I. Priority Description

a) Current Status

A finance agreement has been made under the scope of the “Environmental Pollution Measurement and Monitoring” project launched after being published in the Official Gazette No 20637 of 16 September 1990 concluded between the EU and Turkey. As per the Agreement, ECU 2.5 million of this financing has been provided by the EU, and ECU 585 by the Ministry of Environment. In this respect, three mobile water pollution measurement vehicles, three mobile air pollution measurement vehicles, one settled air pollution vehicle and equipment for the central laboratory has been donated to the Ministry of Environment.

Water, air, soil and waste samples are analysed for quality assessment in the Environmental Reference Laboratory and other laboratories of the Ministry. Unfortunately, there does not exist any laboratory in Turkey with a capacity to realize, in compliance with the GLP

principles, the tests stipulated in Directive No 67/548/EEC for the identification of the potential risks of the chemical substances.

There does not exist any Turkish legislation on GLP.

The Turkish legislation relating to the implementation of the GLP principles shall be harmonized with the EU acquis. There is a need for assistance in the below specified fields to realize all of the tests stipulated in the Council Directive No 67/548/EEC.

- Investigation of the infrastructure conditions of the existing laboratories in Turkey,
- Complicated analysis devices for the physicochemical and ecotoxicological tests,
- Advanced practical and theoretical training on GLP principles, toxicology, ecotoxicology and risk assessment.

Draft regulation should be prepared on GLP principles, verification of use for testing of chemical substances and GLP inspection. Through this Draft the below mentioned objectives are targeted:

- Avoiding different practices in execution likely to lead to barriers in international trading of chemicals,
- Developing qualified test data for mutual recognition among countries,
- Protecting human health and the environment.

b) EU acquis

The list of the related EU acquis is provided in Volume II.

c) Implementing Institution

The Ministry of Environment – Directorate General for the Prevention and Control of Environmental Pollution – Department of Measurement and Monitoring is responsible for the coordination of institutions. Programs will be conducted in coordination especially with the Ministry of Health, the Ministry of Agriculture, Turkish Accreditation Board, other ministries and the private sector. Assistance of the Under-Secretariat of Foreign Trade is essential to embody the existing EU acquis on GLP in the Turkish legislation. Under-Secretariat of Foreign Trade should play active role in ensuring cooperation with the above listed authorities.

d) Final Objective

The regulation on GLP principles and verification of the use of chemicals for testing will have been completed by 31 December 2000. It is planned to complete the regulation on GLP inspection and approval by 31 December 2000, but enforcement of execution depends mostly on the assistance to be provided for the completion of the infrastructure.

II. Comparison of the EU acquis with the corresponding Turkish legislation and the measures to be taken for implementing the necessary amendments and modifications

a) The Corresponding Turkish Legislation

There does not exist any Turkish legislation on GLP.

b) Necessary Amendments and Modifications in the Corresponding Turkish Legislation

The regulations to be enforced are on:

- GLP principles and verification of the use of chemical substances for testing,
- GLP inspection and approval.

c) Necessary Institutional Changes

It is necessary to establish new toxicology laboratories or to equip the existing ones with complicated analysis devices for physicochemical and toxicological testing of chemical substances with respect to the execution of GLP. Besides, specialized and qualified personnel should be employed in these laboratories.

d) Additional Requirements Stemming From Entry into Force of the New Legislation

The laboratories should be strengthened with the personnel to realize the testing of chemical substances. About 70 personnel should be employed for the proper testing of chemical substances as listed under the Directive No 67/548/EEC.

e) Necessary Investments

III. Time Schedule

Short Term

Focus points:

GLP principles and verification of the use of chemical substances for testing

- Enforcement of the Regulation 2000
- Execution of the Regulation 2001

GLP inspection and approval

- Enforcement of the Regulation 2000
- Execution of the Regulation 2001

IV. Financing

A total of EURO 6.5 million is required for the financing.

1.1.7. Noise from vehicles and machinery

I. Priority Description

a) Current Status

The disturbance due to noise is one of the fundamental issues considered under the Environment Law No 2827. The basic legal arrangement on this matter is the Regulation on Noise Control of 1986 setting forth the noise limits for settlement areas, the maximum values permissible for train ways, airports, industrial zones and construction sites as well as the noise emission values of outdoors machinery such as the motor vehicles, also laying down the urban planning principles for noise reduction.

b) EU Acquis

The list of the related EU acquis is provided in Volume II.

c) Implementing Institution

- The Ministry of Environment
- The Ministry of Interior
- The Ministry of Transport
- The Ministry of Health
- The Ministry of Industry and Trade
- The Ministry of Public Works and Settlement
- State Planning Organization
- Under-Secretariat of Customs
- Provincial Governors' Offices
- Municipalities
- Turkish Standards Institute

d) Final Objective

Is to adopt and implement the related EU acquis.

II. Comparison of the EU acquis with the corresponding Turkish legislation and the measures to be taken for implementing the necessary amendments and modifications

a) The Corresponding Turkish Legislation

- Environment Law No 2872
- Law No 2918 on Highway Traffic
- Statutory Decree No 443 on the Establishment and Duties of the Ministry of Environment
- Regulation on Noise Control
- Regulation on the Operating Bases for Light Vehicles (SHY-6C)
- The related directives and circulars of the Directorate General for Civil Aviation

b) Necessary Amendments and Modifications in the Corresponding Turkish Legislation

The Regulation on Noise Control is at the revision stage. The said revision is expected to define especially the authorized bodies and to cover all the components of the EU directives relating to monitoring, accreditation and certification proceedings.

Implementation of the Community requirements will be achieved following the amendments to be made in the legislation on matters such as noise measurements, analysis and reporting.

c) Necessary Institutional Changes

A testing and certification body is to be established. The responsibilities will be clearly defined before making any additional institutional change.

d) Additional staff and Training Requirements for the Implementation of Amendments and Modifications

An effective implementation can be possible only with the efficient monitoring and inspection activities of qualified personnel. For this reason, more personnel should be employed to make regular and/or spontaneous control of the industrial products in use and to conduct regular controls for the verification of production.

The personnel to be employed in this regard should be trained on the monitoring, measurement, analysis, reporting and inspection issues.

e) Necessary Investments

The essential investment and expense items to arise due to the new legislation are to comprise the following:

Establishing type-approval and type examination laboratories

Establishing a monitoring network

Training the personnel

III. Time Schedule

Short Term

- Developing programmes for noise reduction
- Defining the authorized bodies
- Approximating the EU acquis

Medium Term

- Employing and training the necessary personnel
- Setting up accreditation and certification units
- Implementation of the legislation

IV. Financing

The extent and financing of the necessary expenditures are to be defined later.

1.1.8. Nuclear safety and protection from radiation

I. Priority Description

a) Current Status

The legislation applicable to the Turkish Atomic Energy Agency was based on the “Basic Safety Standards” of IAEA and the revisions are made on a regular basis by closely following the recent developments up-to-date.

b) EU acquis

The list of the related EU acquis is provided in Volume II.

c) Implementing Institution

Turkish Atomic Energy Agency: Approval, permission, licensing, auditing and preparation of necessary technical legislation for nuclear power, research reactors, and fuel recycling plants is under the responsibility of TAEK. Furthermore, TAEK is also responsible for the licensing of private and public institutions, enterprises and people having, importing, exporting, transporting, stocking, trading radioactive substances and radiating instruments, auditing them from the radiation safety point of view and prepare the necessary technical legislation on the context.

d) Final Objective

The harmonization of the existing legislation of Turkish Atomic Energy Agency with the related EU legislation.

II. Comparison of the EU acquis with the corresponding Turkish legislation and the measures to be taken for implementing the necessary amendments and modifications

a) The Corresponding Turkish Legislation

The differences and gaps between the legislation of the Turkish Atomic Energy Agency and that of the EU will be identified and assessed.

b) Necessary Amendments and Modifications in the Corresponding Turkish Legislation

The differences and gaps between the legislation of the Turkish Atomic Energy Agency and that of the EU will be identified and assessed.

c) Necessary Institutional Changes

As stated by the Law on Turkish Atomic Energy Agency (No: 2690), The Turkish Atomic Energy Agency is carrying on the research, development and training activities while performing its duty on licensing and auditing devoted to the use of nuclear energy. As suggested in the Nuclear Safety Convention of UAEA, depending on the establishment of nuclear power plants and increasing use of nuclear technology, it would be possible to reach a legal arrangement to achieve a new institutional structure that will separate the licensing and auditing activities from the research and development activities via revising the Law on Turkish Atomic Energy Agency.

d) Additional Requirements Stemming From Entry into Force of the New Legislation

Preparation of new legislation necessary for the harmonization of the EU acquis is under study.

e) Additional staff and Training Requirements for the Implementation of Amendments and Modifications

In the suggestion related to the legislation of TAEK, necessary additional staff will be trained on nuclear and radiation safety according to the UAEA stated qualification by in service training and by the use of the support supplied by International Atomic Energy Agency.

f) Necessary Investments

The studies are still ongoing to determine the investments likely to be required when it becomes necessary to amend or modify the legislation of the Turkish Atomic Energy Agency.

1.1.9. Climate Change

I. Priority Description

a) Current Status

Within the framework of protecting the global climate system and with regard to the responsibilities of Turkey, studies are still continued to get involved in the process of Climate Change Framework Convention (CCFC) by considering the requirements of the growing population and in line with the principle of common but differentiated responsibilities. In recent years, a certain amount of decline has been recognized in the pace of increase of the emissions leading to global warming.

b) EU acquis

The list of the related EU acquis is provided in Volume II.

c) Implementing Institution

- The Ministry of Energy and Natural Resources
- The Ministry of Environment
- The Ministry of Industry and Trade
- The Ministry of Transport
- Directorate General for State Meteorology Works

d) Final Objective

Is to adopt and implement the related EU acquis.

III. Time Schedule

Medium Term

To prepare the emission inventory by identifying the emission factors required for air quality management.

To make the arrangements aiming to increase the energy efficiency and to amplify energy savings for the aim of controlling and decreasing greenhouse gas emissions caused by transportation, energy, industry and households.

ANNEX V

ENVIRONMENT SECTION OF 2008 NATIONAL PROGRAM FOR ADOPTION OF THE ACQUIS

CHAPTER 27 ENVIRONMENT

Owing to the fact that studies on the strategy drafted to meet the opening benchmark of the Chapter 27 are ongoing during the preparation phase of Turkish National Programme for the Adoption of the *acquis* and although studies have been carried out in parallel between the two documents, especially figures concerning financial requirements will become definite after the finalisation of the strategy paper.

Priority 27.1 Adoption of a strategy including gradual well coordinated transposition, implementation and enforcement of the acquis in this chapter, including plans for building up the necessary administrative capacity at national, regional and local level and required financial resources, with an indication of milestones and timetables

The first benchmark of the “Environment” Chapter requires preparation of a comprehensive strategy. This strategy would cover the harmonization and implementation of horizontal and framework legislation as well as the international conventions to which EU is a party.

The main pillars of the strategy are; “Institutions”, “Legislative Approximation and Implementation”, “Strengthening the Institutional Capacity” and “Financial Resources”:

- Under “Institutions” part, the institutions at national, regional and local level responsible for the environment sector, their responsibilities and inspection units are presented.
- Under “Legislative Approximation and Implementation” part, orders of the topics/subjects as in the screening report are taken into account and timetables are presented.
- “Strengthening the Institutional Capacity” pillar covers the future plans for national, regional and local levels.
- Under “Financial Resources” part, the estimated financial burden to adopt and implement the whole EU environmental *acquis* is introduced.

1 Schedule of legislative alignment

Table 27.1.1

No	EU legislation in force	Draft Turkish legislation	Scope	Institution in charge	Publication date
1		Strategy Document	Meeting the opening benchmarks for the chapter	Ministry of Environment and Forestry	2009

2 Schedule of institutional capacity building requirements necessary for legislative approximation and implementation

No institutional capacity building requirement is envisaged under this priority at this stage.

3 Financial requirements and resources

No financial requirement is envisaged under this priority at this stage.

Priority 27.2 Adoption of the National Waste Management Plan

1 Schedule of legislative alignment

Table 27.2.1

No	EU legislation in force	Draft Turkish legislation	Scope	Institution in charge	Publication date
1	Directive No. 2006/12/EC	The National Waste Management Plan ¹	Preparation of “National/ Regional Waste Management Plan”, which is presented in the format given in “Preparing a Waste Management Plan- A Methodological Guidance Note” published in May 2003 by EC DG-Environment in accordance with EU <i>acquis</i> is carried out by the expert(s) experienced on the waste management plans after examining waste management plans of several member states and the outputs of previous studies.	Ministry of Environment and Forestry	2009

2 Schedule of institutional capacity building requirements necessary for legislative approximation and implementation

No additional institutional capacity building requirement is envisaged under this priority at this stage.

3 Financial requirements and resources

No financial requirement is envisaged under this priority at this stage.

¹ A Project has been launched and studies are underway.

Priority 27.3 Whilst strengthening the administrative capacity, continuing transposition of particularly horizontal legislation involving transboundary issues, such as Environmental Impact Assessment, framework legislation, international framework conventions, as well as legislation of Nature Protection, Water Quality, Chemicals, Industrial Pollution, Risk Management and Waste Management, to domestic law and their implementation

Sub-priority 27.3.1 Horizontal Legislation

1 Schedule of legislative alignment

Table 27.3.1.1

No	EU legislation in force	Draft Turkish legislation	Scope	Institution in charge	Publication date
1	Directive No. 2001/42/EC	Implementing Regulation on Strategic Environmental Assessment (SEA) ²	In order to provide protection and sustainable use of environment, sustainable development principles have to be integrated at the preparation phase of plans and programmes which may have possible important effects on environment	Ministry of Environment and Forestry	2010
2	Directive No. 2004/35/EC	Law on Environmental Liability	According to polluter pays principle, the facilities whose activities cause environmental damage, to be liable for preventing and remedying this damage financially, related with this subject, bringing together various articles already existing in our legislation and setting new articles	Ministry of Environment and Forestry Ministry of Justice	After 2011
3	Directive No. 2003/4/EC	Implementing Regulation on Determining Rules and Procedures on Sharing Environmental Data and Information ³	Determining rules and procedures on sharing environmental data Partial compliance with Directive No. 2003/4/EC on access to environmental information	Ministry of Environment and Forestry Prime Ministry	After 2011
4	Directive No. 91/692/EC	Implementing Regulation on the Implementation of Reporting Legislation	Regulating various Directives on reporting to European Commission	Ministry of Environment and Forestry	After 2011

² Espoo Convention will be considered within the framework of full membership perspective.

³ Aarhus Convention will be considered within the framework of full membership perspective.

Table 27.3.1.1 (Continued)

No	EU legislation in force	Draft Turkish legislation	Scope	Institution in charge	Publication date
5	Directive No. 2003/87/EC	Implementing Regulation on Emission Trading ⁴	Establishing a scheme for greenhouse gas emission allowance trading	Ministry of Environment and Forestry Ministry of Energy and Natural Resources Ministry of Industry and Trade Ministry of Finance Ministry of Public Works and Settlement Undersecretariat of Foreign Trade Capital Markets Board Undersecretariat of State Planning Organization	After 2011
6	Decision No. 280/2004/EC	Implementing Regulation on Monitoring Greenhouse Gas Emissions	Establishing a mechanism for monitoring all GHG emissions	Ministry of Environment and Forestry Ministry of Energy and Natural Resources Ministry of Transport Ministry of Agriculture and Rural affairs TURKSTAT	After 2011
7	Directive No. 2007/2/EC	Implementing Regulation which is going to Harmonize Directive on Infrastructure for Spatial Information	Establishment of the national regulatory authority in this field and of the infrastructure for the national spatial planning information/data in the country.	Ministry of Environment and Forestry	After 2011

⁴ Necessary arrangements are going to be made depending on being a party to Kyoto Protocol.

2 Schedule of institutional capacity building requirements necessary for legislative approximation and implementation

Table 27.3.1.2

No	Requirements	Year
(Ministry of Environment and Forestry)		
1	With regard to EIA Directive (85/337/EEC amended with 97/11/EC and 2003/35/EC); <ul style="list-style-type: none"> - Strengthening the current institutional capacity for more effective implementation of Implementing Regulation on EIA - Building capacity of whole stakeholders of EIA process. - Organizing training activities on impact assessment techniques for related governmental institutions - Updating sectoral guidelines, organization of trainings on these guidelines - Strengthening the institutional capacity of EIA Training and Information Centre - Strengthening the Institutional Capacity on EIA Monitoring and Reporting - Investments on infrastructural needs (equipments, software and hardware) 	2009
2	Within the framework of Directive No. 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment (Strategical Environmental Assessment (SEA) Directive); <ul style="list-style-type: none"> - Enhancement of the current institutional structure - Enhancement of the capacities of interest groups included in the SEA process - Provision of training programmes on SEA - Preparation of sectoral guides, implementation training programmes concerning those guidelines - Raising the awareness of people and ensuring their efficient participation to the SEA - Realization of infrastructure investments (equipments, software and hardware) 	2009-2010
(General Directorate of State Hydraulic Works)		
3	For the efficient implementation of Strategical Environmental Assessment (SEA) Directive No. 2001/42/EC on institutional basis; <ul style="list-style-type: none"> - Training of personnel - Carrying out pilot studies 	2009-2010

Table 27.3.1.2 (Continued)

No	Requirements	Year
(State Planning Organization)		
4	For the efficient implementation of Strategic Environmental Assessment (SEA) Directive No. 2001/42/EC on institutional basis; - Training of personnel	2009-2010
(Ministry of Transport)		
5	For the efficient implementation of Strategic Environmental Assessment (SEA) Directive No. 2001/42/EC on institutional basis; - Training of personnel - Carrying out pilot projects	2009-2010
(Ministry of Culture and Tourism (General Directorate of Investments and Enterprises))		
6	For the efficient implementation of Strategic Environmental Assessment (SEA) Directive No. 2001/42/EC on institutional basis; - Training of personnel	2009-2010
(Ministry of Agriculture and Rural Affairs (General Directorate of Agricultural Production and Development))		
7	For the efficient implementation of Strategic Environmental Assessment (SEA) Directive No. 2001/42/EC on institutional basis; - Training of personnel - Carrying out pilot projects	2009-2010

3 Financial requirements and resources

Table 27.3.1.3.1

(Euro)

Requirements (Ministry of Environment and Forestry)	Year	National Budget	EU sources	Other	Total
I-Investment					
Infrastructural needs for the implementation of EIA Directive (equipments, hardware and software)	2009-2011	350,000	300,000		650,000
Infrastructural requirements for the implementation of SEA directive (equipments, hardware and software)	2009-2010	291,000			291,000
Providing equipments, hardware and software for the Ministry's spatial information system (Directive No. 2007/2/EC)	2010	150,000	600,000		750,000
Implementation of the metadata service and the other INSPIRE components, integration of the data into the INSPIRE database (Directive No. 2007/2/EC)	2010	200,000	650,000		850,000
Purchase of hardware within the scope of the Project on Establishment of Environmental Information Exchange Network	2009-2010	1,625,000	4,875,000		6,500,000
II- Legislative approximation and implementation					
- Personnel					
Recruitment of personnel for EIA Studies	2009-2011	4,750,000			4,750,000
Recruitment of personnel to be employed in SEA studies	2009-2010	3,938,160			3,938,160
- Training					
Training on EIA Implementation	2009-2011		300,000		300,000
Training of all stakeholders on SEA	2009-2010		242,000		242,000

Table 27.3.1.3.1 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry)	Year	National Budget	EU sources	Other	Total
Training for the users of Environmental Information System both at central and local level in the related institutions	2009-2010		150,000		150,000
Training abroad on the components of National Information and Observation Network	2009	30,000	570,000		600,000
Training on the dissemination of the use of Geographical Information System (Directive No. 2007/2/EC)	2009		200,000		200,000
Training on the implementation of European Infrastructure for Spatial Information (INSPIRE) (Directive No. 2007/2/EC)	2009		200,000		200,000
Training on remote sensing studies and projects (Directive No. 2007/2/EC)	2009		200,000		200,000
- Consultancy					
Consultancy for enhancing the institutional capacity for the purpose of implementing the SEA Directive ⁵	2009-2010		400,000		400,000
Consultancy for maintenance and development of environmental information system	2009-2010		500,000		500,000
Consultancy for preparation of legislation on access to environmental information and establishment of environmental information exchange network	2009-2010		5,000,000		5,000,000
Development of the INSPIRE based models to monitor the environmental data and variables (Directive No. 2007/2/EC)	2009		400,000		400,000

⁵ To be financed by a project titled "Assisting Turkey for the Implementation of Strategic Environmental Assessment" to be proposed under Pre-Accession Financial Assistance 2009 Programme.

Table 27.3.1.3.1 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry)	Year	National Budget	EU sources	Other	Total
Consultancy for adaptation of the implementation of European infrastructure on spatial information (Directive No. 2007/2/EC)	2009		400,000		400,000
- Translation					
Translation of the related technical documents (1.000 pages) and simultaneous translation (10 times x 10 days)	2009-2010	200,000			200,000
Simultaneous translation for the effective implementation of EIA Directive (6 meetings x 5 days)	2009-2011		50,000		50,000
- Other					
Total		11,534,160	15,037,000		26,571,160

Table 27.3.1.3.2

(Euro)

Requirements (General Directorate of State Hydraulic Works)	Year	National Budget	EU sources	Other	Total
I-Investment					
II- Legislative approximation and implementation					
- Personnel					
- Training					
Training for the effective implementation of the SEA Directive	2009-2010		80,000		80,000
Study visit for observing the SEA implementation in other member states for the effective implementation of the SEA Directive	2009-2010		100,000		100,000
- Consultancy					
Pilot Project the effective implementation of the SEA Directive	2009-2010		300,000		300,000
- Translation					
Simultaneous translation for the effective implementation of the SEA Directive	2009-2010		24,000		24,000
Simultaneous translation for the effective implementation of the SEA Directive	2009-2010		48,000		48,000
- Other					
Total			552,000		552,000

Table 27.3.1.3.3

(Euro)

Requirements (Undersecretariat of State Planning Organization)	Year	National Budget	EU sources	Other	Total
I-Investment					
Infrastructural requirements for the implementation of SEA Directive (equipments, hardware and software)	2009-2010	8,000			8,000
II- Legislative approximation and implementation					
- Personnel					
Recruitments of personnel to be employed in SEA studies	2009-2010	120,000			120,000
- Training					
Training the related personnel on SEA	2009-2010		6,500		6,500
- Consultancy					
- Translation					
- Other					
Total		128,000	6,500		134,500

Table 27.3.1.3.4

(Euro)

Requirements (Ministry of Transport)	Year	National Budget	EU sources	Other	Total
I-Investment					
Infrastructural requirements for the implementation of SEA Directive (equipments, hardware and software)	2009-2010	8,000			8,000
II- Legislative approximation and implementation					
- Personnel					
Recruitments of personnel to be employed in SEA studies	2009-2010	80,000			80,000
- Training					
Training the related personnel on SEA	2009-2010		6,500		6,500
- Consultancy					
- Translation					
- Other					
Total		88,000	6,500		94,500

Table 27.3.1.3.5

(Euro)

Requirements (Ministry of Culture and Tourism (General Directorate of Investment and Enterprises))	Year	National Budget	EU sources	Other	Total
I-Investment					
Infrastructural requirements for the implementation of SEA Directive (equipments, hardware and software)	2009-2010	8,000			8,000
II- Legislative approximation and implementation					
- Personnel					
Recruitments of personnel to be employed in SEA studies	2009-2010	80,000			80,000
- Training					
Training the related personnel on SEA	2009-2010		6,500		6,500
- Consultancy					
- Translation					
- Other					
Total		88,000	6,500		94,500

Table 27.3.1.3.6

(Euro)

Requirements (Ministry of Agriculture and rural Affairs (General Directorate of Agricultural Production and Development))	Year	National Budget	EU sources	Other	Total
I-Investment					
Infrastructural requirements for the implementation of SEA Directive (equipments, hardware and software)	2009-2010	8,000			8,000
II- Legislative approximation and implementation					
- Personnel					
Recruitment of personnel to be employed in SEA studies	2009-2010	80,000			80,000
- Training					
Training the related personnel on SEA	2009-2010		6,500		6,500
- Consultancy					
- Translation					
- Other					
Total		88,000	6,500		94,500

Sub-priority 27.3.2 Waste Management

1 Schedule of legislative alignment

Table 27.3.2.1

No	EU legislation in force	Draft Turkish legislation	Scope	Institution in charge	Publication date
1	Directive No. 1999/31/EC	Implementing Regulation on Landfill of Waste	Prevention or reduction of the adverse effects of waste disposal areas (landfills) on human health, greenhouse effect formation, ground water, surface water and air pollution.	Ministry of Environment and Forestry	2009
2	Directive No. 1999/31/EC	Implementing Regulation Amending the Implementing Regulation on Hazardous Waste Control	Prevention or reduction of the adverse effects of waste disposal areas (landfills) on human health, greenhouse effect formation, ground water, surface water and air pollution.	Ministry of Environment and Forestry	2009
3	Directive No. 1999/31/ EC	Implementing Regulation Amending the Implementing Regulation on Solid Waste Control	Prevention or reduction of the adverse effects of waste disposal areas (landfills) on human health, greenhouse effect formation, ground water, surface water and air pollution.	Ministry of Environment and Forestry	2009
4	Directive No. 1999/31/ EC	Implementing Regulation Amending the Implementing Regulation on Medical Waste Control	Prevention or reduction of the adverse effects of waste disposal areas (landfills) on human health, greenhouse effect formation, ground water, surface water and air pollution.	Ministry of Environment and Forestry	2009
5	Directive No. 2002/96/ EC	Implementing Regulation on Control of The Waste Electric and Electronic Equipment	Ensuring recycling, recovery and disposal of the waste electric and electronic equipment	Ministry of Environment and Forestry	2009
6	Directive No. 2006/21/ EC	Implementing Regulation on Control of Waste from Extractive Industries	Setting out the general rules, technical and administrative procedures related to prevention, minimization, collection, temporary storage, transport and disposal of the excavated soil, topsoil, waste rock, and tailings arising from extraction of the mineral resources in order to prevent or reduce any adverse effects on the environment and on human health	Ministry of Environment and Forestry	2009

Table 27.3.2.1 (Continued)

No	EU legislation in force	Draft Turkish legislation	Scope	Institution in charge	Publication date
7	Directive No. 2000/53/ EC	Implementing Regulation on Control of End of Life Vehicles	Regulating detailed rules and principles on recycling and disposal of the end of life vehicles in an environment-friendly way.	Ministry of Environment and Forestry	2009
8	Regulation No. 1013/2006	Implementing Regulation on Waste Shipments	Establishing control regime and procedures for waste shipment; according to the waste destination and dispatch; the process to be applied in its destination, waste type and place of origin.	Ministry of Environment and Forestry	2009
9	Regulations No. 1013/2006 and 1420/1999	Implementing Regulation Amending the Implementing Regulation on Hazardous Waste Control	Establishing control regime and procedures for waste shipment; according to the waste destination and dispatch; the process to be applied in its destination, waste type and place of origin.	Ministry of Environment and Forestry	2009
10	Directive No. 78/176/ EEC	Implementing Regulation on Control of Waste from the titanium dioxide industry	Controlling the use of titanium dioxide	Ministry of Environment and Forestry	After 2011
11	Directive No. 2006/66/ EC	Implementing Regulation Amending the Implementing Regulation on Control of Used Batteries and Accumulators	Establishing the principles, policies and programmes; to ensure the production of batteries and accumulators having properties which do not harm the environment and human health, to prevent the discharge of these products directly or indirectly to any receiving media, to establish collection systems for the disposal or recovery of waste batteries and accumulators and to prepare the respective management plans. Introducing provisions on the marking and labeling of batteries and accumulators, restriction and prohibition on their production and export, separate collection, transport, recycling and disposal of waste batteries and accumulators from household wastes.	Ministry of Environment and Forestry	After 2011

2 Schedule of institutional capacity building requirements necessary for legislative approximation and implementation

Table 27.3.2.2

No	Requirements	Year
(Ministry of Environment and Forestry)		
1	For the implementation of Waste Framework Directive (75/442/EEC), <ul style="list-style-type: none"> - Strengthening the institutional capacity of the Ministry via recruitment and training of personnel - Improvement of the infrastructure for the recycling and disposal plants' licensing procedure and training of the personnel by using training of trainers method - Establishment of a system for recording the waste collection and transport institutions which are not subject to licensing procedure - Establishment of a unit in charge of integrated waste management in local authorities and training of the personnel - Establishment of a data network for ensuring the access to information on the issues such as the amount of waste, its intermediate storage, recycling and current disposal and recycling plants - Establishment of a system for data collection and reporting - Establishment of separate collection systems for waste minimization and enhancement of recycling systems by using the most appropriate technologies - Establishment of the financing mechanism and waste management plans 	2009-2015
2	For the implementation of Directive on Incineration of Waste (2000/76/EC); <ul style="list-style-type: none"> - Strengthening the institutional capacity of the Ministry via recruitment and training of personnel - Improvement of the infrastructure for the procedures of licensing the recycling and disposal plants and training of the personnel by training of trainers method, certificating the personnel charged with the management of these plants - Establishment of a unit in charge of waste management in local authorities and training of the personnel - Establishment of a system for data collection and reporting - Establishment of the financing mechanism and waste management plans - Development of waste acceptance procedures 	2009-2015
3	For the implementation of Landfill Directive (99/31/EC); <ul style="list-style-type: none"> - Strengthening the institutional capacity of the Ministry via recruitment and training of personnel - Improvement of the infrastructure for the procedures of licensing the recycling and disposal plants and training of the personnel by training of trainers method, certificating the personnel charged with the management of these plants - Establishment of a unit in charge of integrated waste management in local authorities and training of the personnel - Establishment of a system for data collection on solid waste characterization and reporting - Establishment of the financing mechanism and waste management plans - Development of waste acceptance procedures 	2009-2015

Table 27.3.2.2 (Continued)

No	Requirements	Year
4	<p>For the implementation of the Council Regulation(1013/2006) on Shipment of Waste;</p> <ul style="list-style-type: none"> - Strengthening the institutional capacity of the Ministry via recruitment and training of personnel - Improvement of the infrastructure for the procedures of transport licensing and training of the personnel working on this matter by using training of trainers method - Establishment of a system for data collection and reporting 	2009-2015
5	<p>For the implementation of Hazardous Waste Directive (91/689/EEC);</p> <ul style="list-style-type: none"> - Enhancement of the institutional capacity of the Ministry via recruitment and training of personnel - Improvement of hazardous waste inventory and monitoring system and transfer of the most appropriate technology. - Improvement of the infrastructure for the licensing procedures of the recycling, intermediate and temporary storage plants and training of the personnel - Training of the central and provincial directorates' and the local authority's personnel - Training of industrialists and informing the public - Establishment of the financing mechanism and preparation of the waste management plans 	2009-2015
6	<p>For the implementation of the directives on special waste management (Council Directive No. 75/439/EEC on the disposal of waste oils, Council Directive No. 96/59/EC on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT), Council Directive No. 2006/66/EC on batteries and accumulators containing certain dangerous substances, Directive No. 2000/53/EC of the European Parliament and of the Council on end-of life vehicles, Directive No. 2006/21/EC of the European Parliament and of the Council on the management of waste from extractive industries, Directive No. 2002/96/EC of the European Parliament and of the Council on waste electrical and electronic equipment and Directive No. 2002/95/EC of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment);</p> <ul style="list-style-type: none"> - Strengthening the institutional capacity of the Ministry via recruitment and training of personnel - Establishment of a separate collection system for special wastes - Strengthening technical capacity of the local authorities - Enhancement of special waste inventory and monitoring system and transfer of the most appropriate technology - Improvement of the infrastructure for recycling plants' licensing procedures and training of the personnel by using training of trainers method - Establishment of the financing mechanism and preparation of the waste management plans - Establishment of separate collection systems for waste minimization and enhancement of recycling systems by using the most appropriate technologies 	2009-2015

3 Financial requirements and resources

Table 27.3.2.3

(Euro)

Requirements (Ministry of Environment and Forestry)	Year	National Budget	EU sources	Other	Total
I-Investment					
Establishment of separate collection systems for waste minimization, shipment of hazardous waste and enhancement of recycling systems, setting up a regional hazardous waste inventory and according to the inventory results establishing and managing hazardous waste disposal systems and waste incineration plants in compliance with the related directives.	2009-2015			129,000,000 ⁶	129,000,000
Management of special waste in compliance with EU Directives.	2009-2015	3,600,000	13,800,000	118,000,000 ⁷	135,400,000
Transport of municipal waste, establishment of separate collection systems for waste minimization and enhancement of recycling systems, establishment of sanitary landfills, closure of wild waste disposal areas (dump-sites), establishment of composting and incineration plants, recovery and management of construction and demolition waste in compliance with the related directives. ⁸	2009-2015	967,000,000	360,000,000		1,327,000,000
II- Legislative approximation and implementation					
- Personnel					
Personnel Necessary for Special Waste Management	2009-2015	29,385,000			29,385,000
Personnel Necessary for Hazardous Waste Management	2009-2015	27,376,000			27,376,000
Personnel Necessary for Municipal Waste Management (including centre and provincial directorates)	2009-2015	50,558,000			50,558,000

⁶ To be financed by the grants and credits to be provided by private sector.

⁷ To be financed by the grants and credits to be provided by private sector.

⁸ Dates and financial requirements were previously determined in the EU Integrated Environmental Approximation Strategy Document. The Financial requirement extends beyond the scope of the National Programme. It will be revised upon developments in time.

Table 27.3.2.3 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry)	Year	National Budget	EU sources	Other	Total
- Training					
Training on Special Waste Management	2009-2015	557,000	759,000	304,000 ⁹	1,620,000
Training on Hazardous Waste Management - Training of trainers on determination of waste amount and chemical criteria to decide whether waste is hazardous or not and determination of waste disposal methods according to waste characteristics. - Training on full implementation - Training on licensing and inspection (implementation orientated)	2009-2015	320,000	250,000	100,000 ¹⁰	670,000
Training on Municipal Waste Management	2009-2015	4,150,000			4,150,000
- Consultancy					
- Translation					
- Other					
Equipment for Special Waste Management	2009-2015	909,500	1,140,500	220,000 ¹¹	2,270,000
Equipment for Hazardous Waste Management	2009-2015	80,000	1,005,000		1,085,000
Equipment for Municipal Waste Management	2009-2015	1,629,000			1,629,000
Transposition of Directive (2006/21/EC) on Management of Waste from the Extractive Industries ¹²	2009-2013	515,000	4,085,000		4,600,000
Total		1,086,079,500	381,039,500	247,624,000¹³	1,714,743,000

⁹ To be financed by the grants and credits to be provided by private sector.

¹⁰ To be financed by the grants and credits to be provided by private sector.

¹¹ To be financed by the grants and credits to be provided by private sector.

¹² To be financed by the project titled "Management of Waste from Extractive Industries-TR 08.02.05" under Pre-Accession Financial Assistance 2008 Programme.

¹³ To be financed by the grants and credits to be provided by private sector.

Sub-priority 27.3.3 Air Quality

1 Schedule of legislative alignment

Table 27.3.3.1

No	EU legislation in force	Draft Turkish legislation	Scope	Institution in charge	Publication date
1	Directives No. 99/13/EC and 2004/42/EC	Implementing Regulation on the Control of Pollution from the Volatile Organic Compounds ¹⁴	Determination of principles and procedures for the control of pollution from the Volatile Organic Compounds	Ministry of Environment and Forestry	2011 ¹⁵
2	Directive No. 94/63/EC	Legislation on the Control of Volatile Organic Compounds from the Petroleum Storage Facilities	Control of the Volatile Organic Compounds emissions from the petroleum and petroleum products storage, filling and discharging and transport	Ministry of Environment and Forestry Ministry of Transport Ministry of Energy and Natural Resources Energy Market Regulatory Authority	2012
3	Directive No. 2001/81/EC	Implementing Regulation on National Emission Ceilings	Determination of National Emission Ceilings	Ministry of Environment and Forestry	After 2011 ¹⁶

¹⁴ It is also mentioned under “Sub-priority 27.3.4 Industrial Pollution and Risk Management”

¹⁵ Gradual transitional period is envisaged in the Implementing Regulation.

¹⁶ Preparation and implementation schedule of the legal arrangement will be determined within the scope of the project titled “Capacity Development on National Emission Ceilings Directive” under Pre-Accession Financial Assistance 2008 Programme. Harmonization with Gothenburg Protocol will be ensured within the framework of full membership perspective.

2 Schedule of institutional capacity building requirements necessary for legislative approximation and implementation

Table 27.3.3.2

No	Requirements	Year
(Ministry of Environment and Forestry)		
1	For the implementation of Air Quality Framework Directive (96/62/EC) and its Daughter Directives; <ul style="list-style-type: none"> - Determination of competent authorities at national, regional and local scale, - Strengthening the technical and administrative capacity of the Ministry, - Performing of preliminary assessment studies, - Designation of zones and agglomerations, - Establishment of air quality monitoring stations, - Setting-up of regional network centres, - Setting-up of laboratory infrastructure, - Assurance of continuity of reliable and high quality measurement data for reporting, - Provision of emission inventories relating to the emissions, - Air quality assessment, - Preparation and implementation of plans improving the air quality where air quality limit values can not be attained, - Training of staff working on air quality on legislation and technical issues, - Setting up and/or strengthening of the system for the public information on air quality 	2008-2014
2	In the framework of the project titled “Institution Building on Air Quality in the Marmara Region”; <ul style="list-style-type: none"> - Regional Clean Air Centre, - Regional network structure, - 39 air quality monitoring stations, - Regional Calibration Laboratory, - Regional Data Centre, - Setting-up of and operation of Analytical Laboratory, - Air quality assessment, - Modelling, emission data, - Preparation of clean air plan 	2008-2011
3	In the framework of Improving Emissions Control Project; <ul style="list-style-type: none"> - Harmonization of the Directive on National Emission Ceilings with the Air Quality legislation, - Improvement of the national emission inventory and SO₂, NO_x, VOC, NH₃ emission projections, - Preparation of the Regulatory Impact Assessment on the implementation of the Directive on National Emission Ceilings - Building up institutional and technical capacity for transposition of the Directive on National Emission Ceilings. 	2009-2011

Table 27.3.3.2 (Continued)

No	Requirements	Year
4	In the scope the Directive on the control of volatile organic compound emissions resulting from the storage of petrol and its distribution from terminals to service stations (1994/63/EC) <ul style="list-style-type: none">- Determination of the Competent Authority- Determination of the standards for storage and transportation units and approval procedures- Ensuring the coordination and cooperation between the corporations- Determination of the present situation of the facilities, deciding on the investments needed to be done and implementation- Reduction of volatile organic compounds emissions from the storage units in service stations, active containers, filling and discharging equipments in terminals, petroleum storage units and determination of operating precautions and supervision of the implementation	2010-2015
(Ministry of Industry and Trade)		
5	Strengthening the institutional capacity through trainings on fuel economy and CO ₂ emissions	2009

3 Financial requirements and resources

Table 27.3.3.3.1

(Euro)

Requirements (Ministry of Environment and Forestry)	Year	National Budget	EU sources	Other	Total
I-Investment					
The investment need in the scope of institution building on air quality in the Marmara region ¹⁷	2008-2010	1,295,000	3,885,000		5,180,000
Infrastructure investment for the implementation of Air Quality Framework Directive (96/62/EC) and related Directives	2008-2014	26,500,000			26,500,000
II- Legislative approximation and implementation					
- Personnel					
The personnel need for the implementation of Air Quality Framework Directive (96/62/EC) and related Directives ¹⁸	2008-2014	14,415,000			14,415,000
The personnel need associated with the Directive on the control of volatile organic compound emissions resulting from the storage of petrol and its distribution from terminals to service stations (1994/63/EC)	2009-2015	1,085,037			1,085,037
- Training					
The training need for the implementation of Air Quality Framework Directive (96/62/EC) and related Directives	2008-2014	8,500,000			8,500,000
The training of operators in the scope of the Directive on the control of volatile organic compound emissions resulting from the storage of petrol and its distribution from terminals to service stations (1994/63/EC)	2008-2014	30,000	8,000		38,000

¹⁷ Also includes the amount financed by the project titled "Institution Building on Air Quality in the Marmara Region Project- TR 0702.07" under Pre-accession Financial Assistance 2007 Programme.

¹⁸ Also includes the amount financed by the project titled "Institution Building on Air Quality in the Marmara Region Project- TR 0702.07" under Pre-accession Financial Assistance 2007 Programme.

Table 27.3.3.3.1 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry)	Year	National Budget	EU sources	Other	Total
- Consultancy					
Determination of standards for petrol storage and transportation units and approval procedures	2008-2014		170,000		170,000
Considering the present situation of the petrol storage facilities, determining the necessary investments and bringing in the implementation	2008-2014		700,000		700,000
Planning emission reduction of volatile organic compounds, determination of operating precautions, and supervision of the implementation for the petroleum storage units, filling and discharging equipments in terminals, active containers, storage units in service stations	2008-2014		170,000		170,000
- Translation					
- Other					
Institution building on air quality in the Marmara region ¹⁹	2008-2011		1,900,000		1,900,000
Improving Emissions Control ²⁰	2009-2011	140,000	1,910,000		2,050,000
Providing the inter institutional coordination and cooperation, conducting the meetings to determine the competent authority within the context of the Directive on the control of volatile organic compound emissions resulting from the storage of petrol and its distribution from terminals to service stations (1994/63/EC)	2008-2014	18,000			18,000
Total		51,983,037	8,743,000		60,726,037

¹⁹ Financed by the twinning component of the project titled "Institution Building on Air Quality in the Marmara Region Project- TR 0702.07" under Pre-accession Financial Assistance 2007 Programme.

²⁰ To be financed by the project titled "Improving Emissions Control - TR08 02 03" under Pre-accession Financial Assistance 2008 Programme.

Table 27.3.3.3.2

(Euro)

Requirements (Ministry of Industry and Trade)	Year	National Budget	EU sources	Other	Total
I-Investment					
II- Legislative approximation and implementation					
- Personnel					
- Training					
Study visit for trainers on fuel economy and CO ₂ emissions	2009		75,000		75,000
- Consultancy					
- Translation					
Simultaneous translation during trainings	2009		12,000		12,000
- Other					
CO ₂ data collection	2009		10,000		10,000
Total			97,000		97,000

Sub-priority 27.3.4 Industrial Pollution and Risk Management

1 Schedule of legislative alignment

Table 27.3.4.1

No	EU legislation in force	Draft Turkish legislation	Scope	Institution in charge	Publication date
1	Directive No. 2008/1/EC (IPPC Directive)	Implementing Regulation on Integrated Pollution Prevention and Control (Integrated Environmental Permit)	Control of the pollution from major industrial plants with an integrated approach at the source.	Ministry of Environment and Forestry	²¹
2	Directive No. 2000/76/EC	Implementing Regulation on Waste Incineration	Prevention or reduction of the negative environmental impacts of waste incineration, especially the human-health risks posed by pollution of air, soil, surface and groundwater resources	Ministry of Environment and Forestry	2009
3	Directive No. 2000/76/EC	Implementing Regulation Amending the Implementing Regulation on Control of Hazardous Wastes	Prevention or reduction of the negative environmental impacts of waste incineration, especially the human-health risks posed by pollution of air, soil, surface and groundwater resources	Ministry of Environment and Forestry	2009
4	Directive No. 2001/80/EC	Implementing Regulation on Large Combustion Plants	Control of the fume, dust, gas, steam and aerosol emissions, diffused to atmosphere from the energy production facilities; protection of human and environment from the risks posed by pollution of the ambient air.	Ministry of Environment and Forestry	2009 ²²

²¹ Schedule of legislative alignment and implementation is going to be determined within the context of the project titled "Industrial Pollution Prevention and Control – TR 08 02 04" proposed under Pre-Accession Financial Assistance 2008 Programme.

²² Gradual transitional period is envisaged in the Implementing Regulation.

Table 27.3.4.1 (Continued)

No	EU legislation in force	Draft Turkish legislation	Scope	Institution in charge	Publication date
5	Directives No. 99/13/EC and 2004/42/EC	Implementing Regulation on Control of the Pollution Caused from Volatile Organic Compounds ²³	Determining the principles and procedures for control of the pollution caused from Volatile Organic Compounds	Ministry of Environment and Forestry	2011 ²⁴
6	Directive No. 96/82/EC	Implementing Regulation on Control of Industrial Major-Accidents	Prevention of industrial major-accidents in the facilities having dangerous substances and, in order to minimize hazards of the probable accidents to human and environment, determination of the measures which are necessary to ensure efficient and continuous high level of protection	Ministry of Environment and Forestry Ministry of Labour and Social Security	2009
7	Directive No. 87/217/EEC	Legislation Regarding Reduction and Prevention of Pollution Resulting from Asbestos	Reduction of hazardous wastes via limitation or prohibition of the production and utilization of hazardous chemicals. Protection of the environment and human health from hazardous effects of chemicals	Ministry of Environment and Forestry	2009
8	Regulation No. 1980/2000	Implementing Regulation on Eco-label	To promote environmentally friendly products to contribute to the efficient use of resources, and by giving guidance to provide accurate, non-deceptive and scientific information to consumers on such products.	Ministry of Environment and Forestry	After 2011
9	Regulation No. 761/2001	Legislations regarding Voluntary Participation of Organizations in Community Eco-Management and Audit Scheme (EMAS) ²⁵	Establishment and implementation of Environmental Management Systems by organizations. Evaluation and improvement of the environmental performances of the organizations	Ministry of Environment and Forestry	After 2011
10	Regulation No. 166/2006 Commission Decision No. 2000/479/EC	Relevant legal arrangements	Registration and reporting of pollutant emissions.	Ministry of Environment and Forestry	Will be considered within the context of full membership perspective

²³ It is also mentioned under "Sub-Priority 27.3.3 Air Quality"

²⁴ Gradual transitional period is envisaged in the Implementing Regulation.

²⁵ Necessary arrangements will be made depending on the outcomes of the project titled "Internalization of EMAS Regulation and Establishment of EMAS System in Turkey" under SEI program.

2 Schedule of institutional capacity building requirements necessary for legislative approximation and implementation

Table 27.3.4.2

No	Requirements	Year
(Ministry of Environment and Forestry (MoEF), Provincial Directorates of MoEF, Directorates of Special Provincial Administrations and Municipalities)		
1	In the scope of Council Directive No. 2008/1/EC on Integrated Pollution Prevention and Control, <ul style="list-style-type: none"> - Determining the Best Available Techniques for Turkey and starting the studies on harmonization requirements and cost analysis - Establishing the technical and administrative infrastructure - Preparation of implementation guidebooks for the implementation staff - Preparation of implementation guidebooks for industrial sectors - Implementation of economically and technically appropriate emission limits - Initiating the integrated permit implementation. - Supplying equipment for the continuous measurement of pollutants, establishing the infrastructure and setting the measurement quality system 	2010-2012
2	In the scope of the Integrated Pollution Prevention and Control Project (Submitted to IPA-1 2008 Programme) <ul style="list-style-type: none"> - Preparing the inventory of installations - Determining the necessary institutional framework for implementation - Legislative transposition and detailed implementation plan - Determining the technical, administrative and financial capacity of the competent authority and related parties. - Capacity-building programs to achieve necessary technical capacity - Preparation of implementation guidebooks for operators, personnel responsible from enforcement, etc. 	2009-2011
3	In the scope of Commission Decision No. 2000/479/EC of 17 July 2000 on the implementation of a European pollutant emission register (EPER) according to Council Directive No. 2008/1/EC concerning integrated pollution prevention and control (IPPC) and Regulation No. 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register; <ul style="list-style-type: none"> - Preparation of pollutant emission inventory - Compatible register of the inventory for reporting - Establishing and operating the reporting system 	2009 and Beyond ²⁶

²⁶ Implementation will be started upon membership.

Table 27.3.4.2 (Continued)

No	Requirements	Year
4	<p>In the scope of Directive No. 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants;</p> <ul style="list-style-type: none"> - Preparation of the inventory of Large Combustion Plants - Preparation of cost analysis of the technological changes required to achieve the determined emission limits - Inventory studies on issues such as the technology and treatment methods - Preparation of emission inventory - Performing the regulatory impact assessment - Setting the quality system for the continuous measurement of pollutants 	2009 and Beyond
5	<p>In the scope of the Council Directive 1999/13/EC of 11 March 1999 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations;</p> <ul style="list-style-type: none"> - Preparation of scope inventory - Setting the provisions and limit values in National legislation - Establishing solvent reduction and substitution programs - Training of the relevant personnel on VOC emissions measurement and calculation methods and solvent reduction and substitution programs - Determining the criteria for VOC emissions measurement and calculations - Establishing and operating permit and inspection mechanisms 	2010-2015
6	<p>In the scope of Directive No. 2004/42/EC of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products;</p> <ul style="list-style-type: none"> - Preparation of standards and setting the suitable criteria for paints - Determination of compliance of the paints produced or utilized to the Directive 	2010-2015
7	<p>Implementation of Council Directive No. 96/82/EC dated 9 December 1996 on the Control of Major Accident Hazards Involving Dangerous Substances (it will be implemented stage by stage)</p> <ul style="list-style-type: none"> - Recruitment and training of personnel - Improving the institutional and administrative capacity in terms of the training and equipment requirements for the implementation of the legislation. - Training on investigation of major accidents and forming inspection procedures. - Training on inspection. - Training on Safety Management System and Emergency Plans - Training on risk assessment of the installations and accident scenarios. - Training on determining the domino effect and installation groups under risk. - Training on reporting. - Training on the public awareness. - Preparation and implementation of a training program for local authorities and operators - Establishment and maintenance of a registration system. 	2009-2015

Table 27.3.4.2 (Continued)

No	Requirements	Year
8	Regarding Regulation No. 1980/2000 on a revised Community eco-label award scheme; <ul style="list-style-type: none"> - Drafting necessary law which will be legal basis for the Implementing Regulation (Neither Law 2872 on Environment nor the section of Law 4856 on Establishment and Duties of the Ministry of Environment and Forestry concerning Duties of Environmental Management General Directorate contains any article which can be a legal basis to the harmonization of this Regulation) - Identifying Competent Body (MoEF is required to be recognized as competent body by the Commission for full implementation, therefore, in a way, full harmonization depends on full membership of Turkey) - Establishing the application mechanism for eco-label - Establishing terms of use of an eco-label - Establishing an appropriate compliance monitoring and auditing regime for eco-label - Information dissemination and awareness raising studies for producers, retailers, consumers and the general public. - Harmonization of product group criteria descriptions and preparation of other necessary documents (brochure, application guides, etc.). 	2008-2015
9	For the implementation of eco-management and audit scheme (EMAS) Regulation No. 761/2001 of the European Parliament and of the Council of 19 March 2001; <ul style="list-style-type: none"> - Training of the personnel - Administrative capacity building for the preparation of the legislation - Preparation of the necessary legal background - Preparation and implementation of a training programme for the institutions and enterprises - Establishing and maintaining the Accreditation System - Establishing and maintaining the Certification System - Establishing and maintaining the Registration System - Establishing and maintaining the notification system 	2008-2014
(Ministry of Labour and Social Security)		
10	For the implementation of Council Directive No. 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances; <ul style="list-style-type: none"> - Training on major-accidents legislation - Training on Safety report investigation - Training on Safety Management systems - Reporting system, software demonstration - On-site inspection (2 facilities representing high-ranked institutions) - On-site inspection (2 facilities representing low-ranked institutions) - Investigation and reporting major-accidents - Training on risk assessment, simulations and softwares within the scope of safety report and major-accidents prevention policy document - Strengthening the infrastructure of the Major Industrial Accident Office, 	2009-2015

3 Financial requirements and resources

Table 27.3.4.3.1

(Euro)

Requirements (Ministry of Environment and Forestry)	Year	National Budget	EU sources	Other	Total
I-Investment					
(2008/1/EC) Investment on infrastructure for the integrated permit applications and implementation of economical and technically feasible emission limit values (hardware)	²⁷	5,000,000	15,000,000		20,000,000
(2008/1/EC) Equipment, infrastructure and measurement quality systems for the continuous measurement of pollutants	²⁸	2,500,000	7,500,000		10,000,000
(2008/1/EC) and 2000/479/EC Establishing and operating the reporting system (30.000 Euro x 81 Provinces + 50.000 Euro Central)	After 2010	620,000	1,860,000		2,480,000
(96/82/EC) Purchasing of equipment	2009-2015	2,250	6,750		9,000
1980/2000 (EC) Equipment purchasing	2008-2015	2,000	6,000		8,000
1980/2000 (EC) Establishment internet based service for consumers and applicants	2013-2015	12,500	37500		50,000
(761/2001/EC) Equipment purchasing	2008-2014	8,250	24,750		33,000

²⁷ Schedule of financing will be determined in the scope of the project titled "Prevention and Control of Integrated Pollution-TR 08 02 04" under Pre accession Financial Assistance 2008 Programme.

²⁸ Schedule of financing will be determined in the scope of the project titled "Prevention and Control of Integrated Pollution-TR 08 02 04" under Pre accession Financial Assistance 2008 Programme.

Table 27.3.4.3.1 (Continued)

(Euro)

Requirements (Provincial Directorates of MoEF)	Year	National Budget	EU sources	Other	Total
II- Legislative approximation and implementation					
- Personnel					
(2008/1/EC, 2000/479/EC, 166/2006/EC) Recruitment of personnel	2010 and Beyond	288,000,000			288,000,000
(2001/80/EC) Recruitment of personnel	2009 and Beyond	40,000,000			40,000,000
(99/13/EC, 2004/42/EC) Recruitment of personnel	2010-2015	40,000,000			40,000,000
(96/82/EC) Recruitment of personnel	2009-2015	520,000			520,000
1980/2000 (EC) Recruitment of personnel	2008-2013	143,000			143,000
(761/2001/EC) Recruitment of personnel	2008-2014	860,000			860,000
- Training					
(99/13/EC) Training of the related personnel on the methods of measurement and calculation of VOC emissions and programmes for solvent reduction and substitution	2009-2011	10,000	30,000		40,000
(2008/1/EC) Training of current personnel	2009-2012		432,000		432,000
(2008/1/EC) Study visit	2009-2012		1,500,000		1,500,000
(2008/1/EC) Training of the new personnel	2009-2012	375,000	1,125,000		1,500,000
(2008/1/EC) Study visit in Turkey	2009-2012	548,000			548,000

Table 27.3.4.3.1 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry)	Year	National Budget	EU sources	Other	Total
Equipment infrastructure and measurement quality systems for the continuous measurement of pollutants	2009-2012	540,000	8,000		548,000
(2008/1/EC, 2000/479/EC) Preparation of emission data and reporting to European Commission	2009-2012		28,000		28,000
(2004/42/EC) Training on the determination of compliance of the paints fabricated and utilized with the Directive (abroad)	2009-2012	9,600	24,000		33,600
(2004/42/EC) Training on the determination of compliance of the paints fabricated and utilized with the Directive	2009-2012	30,000	8,000	38,000	76,000
(2008/1/EC, 2001/80/EC, 99/13/EC, 2004/42/EC) Training on preparation of scope inventory	2009-2012		20,000		20,000
(2008/1/EC, 2001/80/EC, 99/13/EC, 2004/42/EC) Training of experts on EU and other international reporting requirements (abroad)	2009-2012	4,000	10,000		14,000
(2008/1/EC, 2001/80/EC, 99/13/EC, 2004/42/EC) Internship/hands-on training of the Primary Contact Points (PCP) on international and EU emissions reporting	2009-2012		9,800		9,800

Table 27.3.4.3.1 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry)	Year	National Budget	EU sources	Other	Total
(96/82/EC) - Training on investigation of major industrial accidents and establishment of procedures - Training on inspection related to major industrial accidents	2009	2,900	8,700		11,600
(96/82/EC) - Training on safety management systems and emergency plans related to major industrial accidents - Training on accident scenarios and risk analysis of establishments related to major industrial accidents	2010	6,000	18,000		24,000
(96/82/EC) Training on reporting related to major industrial accidents	2012	3,750	11,250		15,000
(1980/2000 (EC)) On-site investigation on principles of establishing the eco-labeling system	2008-2015	11,250	33,750		45,000
(761/2001/EC) General training about EMAS	2008 - 2009		10,000		10,000
(761/2001/EC) On-site investigation on principles of establishing the EMAS system	2010		15,000		15,000
(761/2001/EC) EMAS legislation training	After 2011		15,000		15,000
(761/2001/EC) - Training on EMAS, training on legislation for environmental verifiers - Pilot study on EMAS inspection	After 2011		15,000		15,000
- Consultancy					
(2008/1/EC, 2001/80/EC, 99/13/EC, 2004/42/EC) Preparation of scope inventory	2008-2010		2,236,000		2,236,000

Table 27.3.4.3.1 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry)	Year	National Budget	EU sources	Other	Total
(2008/1/EC, 2001/80/EC, 99/13/EC, 2004/42/EC) Analysis of institutional structure requirements and overcoming conflict of competence and defects in permit procedures and simplifying the permit procedure	2008-2009		2,037,000		2,037,000
(2004/42/EC) Setting the paint criteria and preparation of standards	2008-2009		203,700		203,700
(99/13/EC) Determination of the criteria for VOC emissions measurement and calculations	2008-2009		204,000		204,000
(99/13/EC) Preparation of national legislation on solvent reduction and substitute programmes and inclusion of provisions and limit values	2008-2009		204,000		204,000
(2001/80/EC) Preparation of emission inventory	2008-2009		68,000		68,000
(2001/80/EC) Preparing programmes for the reduction of emission loads	2008-2009		71,000		71,000
- Translation					
Translation of the legislation (1000 pages)	2008-2015		20,000		20,000
Translation of best available techniques reference documents (30000 pages)	2008-2015		600,000		600,000
Translation of guidebooks (10000 pages)	2008-2015		200,000		200,000
Translation of Project reports and working documents (10000 pages)	2008-2015		200,000		200,000

Table 27.3.4.3.1 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry)	Year	National Budget	EU sources	Other	Total
(1980/2000 (EC))	2008-2015	18,750	56,250		75,000
(761/2001/EC)	2011	2,500	7,500		10,000
- Other					
(2008/1/EC, 2001/80/EC) Workshops on the identification of “Best Available Techniques”, transposition requirements and cost analysis	2008-2009	45,000	135,000		180,000
(2008/1/EC, 2001/80/EC, 99/13/EC, 2004/42/EC) Workshops on the analysis of institutional structure requirements and overcoming the competence conflict and defects in permit procedures and simplifying the permit procedure.	2008-2009	2,000	6,000		8,000
(2008/1/EC) Working groups for the preparation of guidebooks for sectors and preparation of guidebooks for the personnel responsible for permitting	2008-2009	18,000			18,000
(2001/80/EC) Meetings with the relevant stakeholders for the determination of required financial resources and transition periods for compliance to new technologies	2008-2009	18,000			18,000
Integrated Pollution Prevention and Control ²⁹	2009-2011	175,000	2,325,000		2,500,000
Harmonization of EMAS Regulation and Establishment of the EMAS System in Turkey ³⁰	2008-2009		200,000		200,000
Total		379,487,250	36,530,250	38,000	416,055,500

²⁹ To be financed by the project titled “Integrated Pollution Prevention and Control – TR 08 02 04” proposed under Pre-accession Financial Assistance 2008 Programme.

³⁰ To be financed by the project titled “Harmonization of EMAS Regulation and Establishment of the EMAS System in Turkey” under SEI Programme.

Table 27.3.4.3.2

(Euro)

Requirements (Provincial Directorates of MoEF)	Year	National Budget	EU sources	Other	Total
I-Investment					
Purchasing of equipment within the context of Control of Major Accidents	2009-2015		93,000		93,000
II- Legislative approximation and implementation					
- Personnel					
Recruitment of personnel within the context of Control of Major Accidents	2009-2015	5,700,000			5,700,000
- Training					
Training on investigation of major industrial accidents and establishment of procedures for these	2009	11,500	34,500		46,000
-Training on inspection related to major industrial accidents -Training on safety management systems and internal emergency plans related to major industrial accidents	2010	31,000	93,000		124,000
- Training on external emergency plans related to major industrial accidents - Training on accident scenarios and risk analysis of establishments related to major industrial accidents	2011	33,750	101,250		135,000
Training on reporting related to major industrial accidents	2012	18,250	54,750		73,000
- Consultancy					
- Translation					
- Other					
Total		5,794,500	376,500		6,171,000

Table 27.3.4.3.3

(Euro)

Requirements (Ministry of Labour and Social Security)	Year	National Budget	EU sources	Other	Total
I-Investment					
Purchasing of equipment within the context of control of major industrial accidents	2009-2010	41,000	123,000		164,000
II- Legislative approximation and implementation					
- Personnel					
Recruitment of personnel within the context of Control of Major Accidents	2009-2010	2,600,000			2,600,000
- Training					
Within the context of control major industrial accidents - Training on legislation - Assessment of safety report - Management systems - Notification system, introduction of computer program	2009	18,300	54,900		73,200
- Implementation of inspection on site (2 workplaces for upper-tier establishments) - Implementation of inspection on site (2 workplaces for lower-tier establishments) - Investigation and reporting of accidents - Risk assessment, simulations, software etc. within the context of safety report, major accidents prevention policy document	2010	33,550	100,650		134,200
- Consultancy					
- Translation					
- Other					
Total		2,692,850	278,550		2,971,400

Sub-priority 27.3.5 Chemicals Management

1 Schedule of legislative alignment

Table 27.3.5.1

No	EU legislation in force	Draft Turkish legislation	Scope	Institution in charge	Publication date
1	Directive No. 67/548/EEC	Implementing Regulation on the Classification, Packaging and Labeling of Dangerous Substances and Preparations	The scope of this By-law is to regulate the detailed rules and principles for classification, labeling and packaging of dangerous substances and preparations placed on the market for effective control and efficient surveillance in order to protect the man and the environment against their negative effects	Ministry of Environment and Forestry	2009
2	Regulation No. 689/2008/EC	Legislation on Import and Export of Dangerous Chemicals	Development of detailed rules and principles on import and export of dangerous chemicals	Undersecretariat of Foreign Trade Ministry of Environment and Forestry	After 2011
3	Directive No. 98/8/EC	Implementing Regulation on Biocidal Products	Before placing on the market, assessment of risks of biocidal products on human, animal and environment, determination of implementation procedures and principles on production of biocidal products, custom manufacturing, import, classification, placing on the market, private usage methods and inspection of biocidal products, determination of procedures relating to authorized products	Ministry of Health	2009 ³¹
4	Regulation No. 850/2004/EC	Legislation on Persistent Organic Pollutants	Raising public awareness on persistent organic pollutants and elimination and disposal of persistent organic pollutants and contaminated equipments	Ministry of Environment and Forestry	After 2011
5	Council Decision No. 2006/507/EC	Law on the Approval of Ratification of Stockholm Convention on Persistent Organic Pollutants	Being a party to Stockholm Convention regarding Persistent Organic Pollutants	Ministry of Foreign Affairs	2009-2010

³¹ Gradual transitional period is envisaged in the Implementing Regulation.

Table 27.3.5.1 (Continued)

No	EU legislation in force	Draft Turkish legislation	Scope	Institution in charge	Publication date
6	Council Decision No. 2003/106/EC	Law on the Approval of Ratification of Rotterdam Convention	Being a party to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Dangerous Chemicals and Pesticides in International Trade	Ministry of Foreign Affairs	2011
7	Regulation No. 1907/2006/EC	Relevant legal arrangements ³²	This Regulation lays down provisions on manufacturing, placing on the market or use of substances as it is, in preparations or in articles	Ministry of Environment and Forestry	³³

³² Necessary arrangements will be made depending on the outcomes of the project titled “The REACH Chemicals- TR 08 02 02” under Pre-Accession Financial Assistance 2008 Programme.

³³ Schedule of legislative alignment and implementation will be determined within scope of the project titled “The REACH Chemicals- TR 08 02 02” under Pre-Accession Financial Assistance 2008 Programme.

2 Schedule of institutional capacity building requirements necessary for legislative approximation and implementation

Table 27.3.5.2

No	Requirements	Year
(Ministry of Environment and Forestry)		
1	Developing the institutional structure required for implementation of the provisions of Regulation on Import and Export of Dangerous Chemicals (304/2003/EC)	2009-2011
2	Ensuring the institutional and legal arrangements for the Rotterdam Convention (22003A0306(01))	2009-2011
3	Enhancing the current institutional structure for implementation of the provisions of Regulation on Persistent Organic Pollutants (850/2004)	2009-2011
4	For the harmonization of Directive on classification, packaging and labeling of dangerous substances (67/548/EEC); - Developing the required institutional structure, enhancing it with the required trainings - Developing a strategy for chemicals	2009-2011
5	By becoming party to Stockholm Convention on Persistent Organic Pollutants; - Establishing departments and expert network for the secretariat, information exchange and reporting - Participation to international research, development and monitoring programs- ensuring the technical assistance and financial resources	2009-2011
6	Development of institutional structure required for the implementation of Regulation No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) ³⁴	³⁵

³⁴ Institutional capacity building measures will be determined depending on the outcomes of the project titled "REACH Chemicals - TR 08 02 02" under Pre-Accession Financial Assistance 2008 Programme.

³⁵ Schedule of implementation will be determined within scope of the project titled "The REACH Chemicals - TR 08 02 02" under Pre-Accession Financial Assistance 2008 Programme.

3 Financial requirements and resources

Table 27.3.5.3.1

(Euro)

Requirements (Ministry of Environment and Forestry)	Year	National Budget	EU sources	Other	Total
I-Investment					
Purchasing of equipment for the harmonization of Directive on Classification, Packaging and Labeling of Dangerous Substances (67/548/EEC)	2009-2011	37,000			37,000
Purchasing of equipment for implementation of the provisions of Regulation on Import and Export of Dangerous Chemicals (304/2003)	2009-2011	11,000			11,000
Purchasing of equipment for implementation of the provisions of Regulation on Persistent Organic Pollutants (850/2004)	2009-2011	74,000			74,000
II- Legislative approximation and implementation					
- Personnel					
Recruitment of personnel for implementation of the provisions of Regulation on Import and Export of Dangerous Chemicals (304/2003)	2009-2011	310,000			310,000
Recruitment of personnel for implementation of the provisions of Regulation on Persistent Organic Pollutants (850/2004)	2009-2011	620,000			620,000
Recruitment of personnel for implementation of the Turkish legislation adapting the provisions of the Directive on the Classification, Packaging and Labeling of Dangerous Substances and Preparations (67/548/EEC)	2009-2011	93,000			93,000
Recruitment of new personnel for the implementation of Regulation No. 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) ³⁶	2009-2011	181,000			181,000

³⁶ To be financed by the project titled "The REACH Chemicals- TR 08 02 02" under Pre-Accession Financial Assistance 2008 Programme. The overall budget of the project was estimated as 2.500.000 Euro. Personnel, training and consultancy requirements and the other works needed for implementation will be determined at the end of the project.

Table 27.3.5.3.1 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry)	Year	National Budget	EU sources	Other	Total
- Training					
Training on implementation of the provisions of Regulation on Import and Export of Dangerous Chemicals (304/2003)	2010-2012		62,500		62,500
Training on implementation of Directive on Classification, Packaging and Labelling of Dangerous Substances (67/548/EEC)	2008-2009	40,750			40,750
Training on implementation of Regulation No. 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) ³⁷	2009-2011	48,200	440,000		488,200
- Consultancy					
Service contract to establish necessary infrastructure for the implementation of REACH ³⁸	2009-2011		1,590,000		1,590,000
Service contract to determine the possible impacts of REACH on Chemicals Sector ³⁹	2009-2011		320,000		320,000
- Translation					
Translation of Regulation No. 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and relevant guidance documents ⁴⁰	2009-2011		33,000		33,000
- Other					
Total		1,414,950	2,445,500		3,860,450

³⁷ To be financed by the project titled "The REACH Chemicals- TR 08 02 02" under Pre-Accession Financial Assistance 2008 Programme. The overall budget of the project was estimated as 2.500.000 Euro. Personnel, training and consultancy requirements and the other works needed for implementation will be determined at the end of the project.

³⁸ To be financed by the project titled "The REACH Chemicals- TR 08 02 02" under Pre-Accession Financial Assistance 2008 Programme. The overall budget of the project was estimated as 2.500.000 Euro. Personnel, training and consultancy requirements and the other works needed for implementation will be determined at the end of the project.

³⁹ To be financed by the project titled "The REACH Chemicals- TR 08 02 02" under Pre-Accession Financial Assistance 2008 Programme. The overall budget of the project was estimated as 2.500.000 Euro. Personnel, training and consultancy requirements and the other works needed for implementation will be determined at the end of the project.

⁴⁰ To be financed by the project titled "The REACH Chemicals- TR 08 02 02" under Pre-Accession Financial Assistance 2008 Programme. The overall budget of the project was estimated as 2.500.000 Euro. Personnel, training and consultancy requirements and the other works needed for implementation will be determined at the end of the project.

Sub-priority 27.3.6 Water Management

1 Schedule of legislative alignment

Table 27.3.6.1

No	EU legislation in force	Draft Turkish legislation	Scope	Institution in charge	Publication date
1	Directive No. 2000/60/EC	Framework Water Law ⁴¹	Fulfillment of legislative gaps and correction of complications occurred during implementation	Ministry of Foreign Affairs Ministry of Energy Ministry of Environment and Forestry Ministry of Agriculture and Rural Affairs	After 2011 ⁴²
2	Directive No. 91/676/EEC	Implementing Regulation Amending the Implementing Regulation on the Protection of Waters Against Pollution Caused by Nitrates from Agricultural Sources	Determination and reduction of the pollution in surface and groundwaters caused by Nitrates from Agricultural Sources and preventing probable future pollution risk	Ministry of Agriculture and Rural Affairs	After 2011
3	Directives No. 91/271/EEC and 2000/60/EC	Implementing Regulation on Determination of the Tariffs for Waste Water Treatment Plants and Solid Waste Disposal Plants	Contribution to the sustainability of the environmental infrastructure services, by adjusting and evaluating of the full cost recovery tariffs of the construction of the wastewater infrastructure and solid waste disposal plants, operation, maintenance, collection, transportation, rehabilitation, monitoring and maintenance after closure which will be held with the wastewater infrastructure administrations and municipalities.	Ministry of Environment and Forestry	2009

⁴¹ The legislative analysis of water management of our Country will be carried out within the context of the twinning component of the project titled“ Capacity Building for Water Sector in Turkey” under Pre-Accession Financial Assistance 2006 Programme which will last for 2 years beginning from 2007.

⁴² Harmonization to the related EU acquis will be ensured within the framework of full membership perspective.

Table 27.3.6.1 (Continued)

No	EU legislation in force	Draft Turkish legislation	Scope	Institution in charge	Publication date
4	Directive No. 91/271/EEC	Implementing Regulation on Urban Waste Water Treatment	Because of the adverse effects of urban and certain industrial sectors discharge, designation of the sensitive and less sensitive areas to protect the natural freshwater lakes, other freshwater bodies, estuaries and coastal waters which are found to be eutrophic or likely to be eutrophic in the near future, if protective action is not taken, furthermore fresh surface waters from which obtaining drinking water is intended and the areas where further treatment may be required due to possible high nitrate concentrations	Ministry of Environment and Forestry	2009
5	Directive No. 91/271/EEC	Communiqué on Designation of Sensitive and Less Sensitive Areas		Ministry of Environment and Forestry	2009
6	Directives No. 80/68/EEC and 2006/118/EC	Implementing Regulation on the Protection of Groundwater Against Pollution and Deterioration	With the aim of preventing and controlling of groundwater pollution; defining criteria for the assessment of good groundwater chemical status, determination of decreasing chemical status, defining the initial point for healing and remediation of chemical status, protecting good status of groundwater resources and preventing deterioration.	Ministry of Environment and Forestry	2009 ⁴³
7	Directive No. 76/464/EEC	Amendment to the Implementing Regulation on the Control of Pollution Caused by Dangerous Substances in Water and its Environment	Amendment of new definitions, revision of given deadlines and overcoming difficulties for implementation	Ministry of Environment and Forestry Ministry of Agriculture and Rural Affairs	2009

⁴³ Gradual transitional period is envisaged in the Implementing Regulation.

Table 27.3.6.1 (Continued)

No	EU legislation in force	Draft Turkish legislation	Scope	Institution in charge	Publication date
8	Directive No. 2006/44/EEC	Implementing Regulation on the Quality of Fresh Waters Needing Protection and Improvement in order to Support Fish Life	The protection or improvement of the quality of the water courses and ditch fresh waters in which species necessary for water management objectives and other naturally varied local species can live in normal conditions or in case of reduction and improvement in water pollution.	Ministry of Agriculture and Rural Affairs	2009
9	Directive No. 2006/7/EC	Amendment to the Implementing Regulation on Management of the Quality of Bathing Waters	Informing the public, and monitoring and classification of bathing waters in order to sustain and preserve the quality of bathing waters with the aim of protecting the human health regarding the bathing waters except bathing pools and curator waters.	Ministry of Health Ministry of Environment and Forestry	After 2011
10	Directive No. 2007/60/EC	Legislation (Necessary legislation will be determined in the framework of foreseen project.)	The Assessment and Management of Flood Risks	Ministry of Environment and Forestry	After 2011

2 Schedule of institutional capacity building requirements necessary for legislative approximation and implementation

Table 27.3.6.2

No	Requirements	Year
(Ministry of Environment and Forestry- General Directorate of Environmental Management)		
1	Within the context of the implementation of Council Directive of 4 May 1976 and No. 76/464/EEC about the pollution caused in water environment by dangerous substances and its relevant directives; <ul style="list-style-type: none"> - Strengthening of the infrastructures of Ministry and Laboratory - Continuation of inventory works - Establishment of environmental quality standards - Establishment of monitoring system - Recruitment of staff who will inspect Organized Industrial Zones and Industrial Plants and the training of staff of Ministry and manufacturers 	2009-2014 ⁴⁴
2	In the context of implementation of Council Directive No. 75/440/EEC of 16 June 1975 concerning the quality required of surface water intended for the abstraction of drinking water in the Member States and Council Directive No. 79/869/EEC of 9 October 1979 concerning the methods of measurement and frequencies of sampling and analysis of surface water intended for the abstraction of drinking water in the Member States, <ul style="list-style-type: none"> - Ensure the monitoring of quality standards - Ensure that categorized water resources and existing treatment plants are appropriate for these directives - Ensure the starting of upgrades on existing treatment plants and construction of new treatment plants - Ensure the preparation of systematic drinking water basin protection plan including activities related with improvement of all surface waters used or intended for the abstraction of drinking water and especially in A3 category - Recruitment and training of staff for central and provincial organizations and equipment purchasing in order to; keep records of data collected according to these directives. 	2009-2011 ⁴⁵
3	Training of staff and strengthening current institutional structure for monitoring eutrophication in order to implement provisions of Council Directive No. 91/676/EEC of 2 December 1991 on the Protection of Waters Against Pollution Caused by Nitrates from Agricultural Sources	2009-2011

⁴⁴ Legislative alignment has been achieved after enactment of the “Implementing Regulation on Control of Pollution Caused by Dangerous Substances in Water and its Environment” which was published in the Official Gazette No. 26005 dated 26/11/2005 and by this directive; the full implementation will be achieved by 2014 according to transitional periods envisaged in the Implementing Regulation.

⁴⁵ Although Legislative alignment has been achieved after the enactment of the Implementing Regulation concerning the quality required of surface water intended for the abstraction of drinking water which was published in the Official Gazzetta No. 25999 dated 20.11.2005 and period concerning this directive was defined as 2009–2011, full implementation will be achieved by 2014 according to the transitional periods envisaged in the implementing regulation.

Table 27.3.6.2 (Continued)

No	Requirements	Year
4	<p>For the implementation of the Council Directive No. 86/278/EEC of 12 June 1986 on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture;</p> <ul style="list-style-type: none"> - Accreditation practices of the Environmental Reference Laboratory on sewage sludge and soil analyses carried out within the framework of activities to be accomplished in order to enhance the current institutional infrastructure. - Making up the inventory of sewage sludge and the soil in which it is used. - Training of sewage sludge producers, users and the personnel employed in the central and provincial organization of the Ministry and raising public awareness - Recruitment of personnel to the central and provincial organization of the Ministry for ensuring regular monitoring of the soil where sewage sludge is used - Carrying out training of trainers programmes for the personnel employed in central and provincial organization of the Ministry - Establishment of a system for data collection and reporting - Realisation of investments by developing plans for sludge management and minimization 	After 2011
5	<p>For the Implementation and inspection of the Council Directive No. 91/271//EEC of 21 May 1991 concerning on Urban Wastewater Treatment;</p> <ul style="list-style-type: none"> - Recruitment and training of personel to the central and provincial offices - State of play analysis of current situation of sewerage system and wastewater treatment plant, designation of sensitive areas and agglomerations 	2009-2011
6	<p>For the Implementation and inspection of the Council Directive No. 91/271//EEC of 21 May 1991 concerning on Urban wastewater treatment;</p> <ul style="list-style-type: none"> - Establishing of monitoring and inventory system for sensitive areas, agglomerations, treatment systems and all receiving bodies - Strengthening of laboratory capacity 	2009-2011
7	<p>Within the scope of capacity building efforts to implement the repealed Council Directive No. 79/923/EEC of 30 October 1979 on the quality required of shellfish waters and the Directive No. 2006/113/EC of the European Parliament and of the Council of 12 December 2006 on the quality required of shellfish waters,</p> <ul style="list-style-type: none"> - Recruitment of personnel - Training of personnel on the issue of pollution reduction programmes - Equipment requirements 	2009 and Beyond
8	<p>Council Directive No. 76/160/EEC of 8 December 1975 concerning the quality of bathing water;</p> <ul style="list-style-type: none"> - Enhancement of the laboratory capacity for monitoring and reporting the areas being used for the purpose of bathing and recreational purposes - Inspection of water treatment facilities, waste water discharge and disinfection systems in order to ensure that the discharging process is carried out without causing any negative effects on water environments being used for bathing and recreational purposes - Enhancement of the laboratory infrastructure - Recruitment of personnel for the central and provincial organization of the Ministry and training of those personnel. - Establishment and development of a monitoring system - Equipment requirement - Training of personnel for the preparation of pollution maps. - Training of the personnel for reporting 	2009 and Beyond

Table 27.3.6.2 (Continued)

No	Requirements	Year
(Ministry of Environment and Forestry (General Directorate of Environmental Management- General Directorate of State Hydraulic Works))		
9	<p>For the implementation of Council Directive No. 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution caused by certain dangerous substances and Council Directive No. 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration ^{46 47};</p> <ul style="list-style-type: none"> - Determination of groundwater bodies - Development of criteria and procedures for the evaluation of good groundwater chemical status - Identification of dangerous substances - Determination of threshold values - Development of criteria for determination of increasing deterioration of chemical status and defining the initial point for healing - Assessment of human activities on groundwater bodies - Performing monitoring programme - Monitoring of groundwater quality and quantity - Set on criteria for evaluation of groundwater chemical status - Assessment of monitoring data and making up an inventory - Determination of groundwater protected areas - Development of strategies in order to control and prevent groundwater pollution - Determination of measurement programme - Analysis of economical groundwater usage - Development and implementation of pricing system - Ensuring public participation - In the aim of preparation of groundwater management plans, strengthening of existing institutional structure, strengthening of infrastructure of laboratories for groundwater quality monitoring, purchasing consumables and other requirements, recruitment of staff for the central and provincial organizations, training and purchasing equipment. 	After 2011

⁴⁶A draft Implementing Regulation on the protection of groundwater against pollution is prepared according to Council Directive No. 2006/118/EC and groundwater aspects of Water Framework Directive (2000/60/EC). Although this draft Implementing Regulation does not include provisions of Council Directive No. 80/68/EEC completely, since direct and indirect discharge to groundwater is forbidden in the Implementing Regulation, it has more restrictive provisions. It is planned that the draft Implementing Regulation will be completed in 4th quarter of year 2009. Implementation period will be defined according to legislative alignment and institutional restructuring.

⁴⁷Concerning this directive, the project titled "Strengthening the Capacity of Sustainable Groundwater Management" (PPA05/TR/7/8) supported by Dutch Government was launched in January 2006 and finalised in January 2008. As the outcomes of this project; in order to harmonize the Council Directive 80/68/EEC and Council Directive No. 2006/118/EC which are on the management of underground water and the provisions related to underground water in Water Framework Directive No. 2000/60/EC, the national legislation, institutional infrastructure concerning underground water and implementation capacity of have been reviewed, a gap analysis has been performed and a draft Implementing Regulation has been prepared. Moreover, "Groundwater Management Plan" has been prepared for Küçük Menderes River Basin.

Table 27.3.6.2 (Continued)

No	Requirements	Year
10	In scope of implementation of Water Framework Directive (2000/60/EC) ⁴⁸ ; - Recruitment and training of staff for preparation of Basin Management Plans - Strengthening the infrastructure of geographical information systems for the preparation of basin management plans and purchasing of equipments, software for the development of infrastructure appropriate for European Water Information System and consultancy service - Compensation of equipment and infrastructure needs of laboratories in order to strengthen the biological monitoring works, recruitment of staff and their training - Recruitment of staff and their training for the identification and monitoring of Groundwater Absolute Protection Areas in order to conserve groundwater protection status and development of Artificial Feed into Groundwater in order to conserve groundwater protection status which is one of the subworks for the provision of using wetlands rationally	2010-2011
(Ministry of Environment and Forestry- General Directorate of State Hydraulic Works))		
11	Related to Council Directive No. 75/440/EEC of 16 June 1975 concerning the quality required of surface water intended for the abstraction of drinking water in the Member States and Council Directive No. 79/869/EEC of 9 October 1979 concerning the methods of measurement and frequencies of sampling and analysis of surface water intended for the abstraction of drinking water in the Member States, - Recruitment of staff - Training of staff	2009-2010
12	Regarding the Council Directive No. 91/676/EEC of 2 December 1991 on the Protection of Waters Against Pollution Caused by Nitrates from Agricultural Sources; - Training of staff for monitoring of eutrophication in Dam lakes	2009-2010
13	About Directive No. 2007/60/EC on the assessment and Management of Flood Risks; - Determination of institutional requirements for implementation	2009-2010

⁴⁸With the ongoing twinning component of the project titled “Support to Capacity Building for Water Sector in Turkey” (TR 06 03) under Pre-Accession Financial Assistance 2006, establishment of a water management in accordance with Water Framework Directive (WFD) No. 2000/60/EC, Urban Wastewater Directive(UWWTD) 91/271/EEC, Council Directive No. 76/464/EEC on Hazardous Substances and other relevant Directives is aimed with a view to ensuring full implementation of EU acquis at the time of Turkey’s full membership. The implementation plans to be obtained at the end of this project will enable to lay down technical and administrative capacity requirements and schedule towards the full alignment and implementation of WFD. It will be more suitable to estimate the costs of related institutions and organizations in this framework. Detailed analysis will be carried out within scope of the project for the establishment of investment requirements for recruitment of personel, consultancy, translation services and the cost analysis.

Table 27.3.6.2 (Continued)

No	Requirements	Year
(Ministry of Agriculture and Rural Affairs)		
14	<p>In order to implement provisions of Council Directive No. 91/676/EEC of 2 December 1991 on the Protection of Waters Against Pollution Caused by Nitrates from Agricultural Sources;</p> <ul style="list-style-type: none"> - Determination of sensitive areas - Determination of good agriculture implementation codes - Setting up an Action Programme - Setting up monitoring network for surface and groundwaters - Monitoring surface and groundwaters - Setting up a national monitoring and report system - Purchasing mobile laboratories and strengthening infrastructure of existing laboratories - Training of staff 	2009-2011
15	<p>Within the context of institutional capacity strengthening for the implementation of 6 September 2006 dated 2006/44/EC European Parliament and Community Directive on the quality of fresh waters needing protection or improvement in order to support fish life;</p> <ul style="list-style-type: none"> - Training for the implementation of directive - Training for the fish fieldwork - Training for the establishment of the water quality sampling and monitoring system - Training for analysis methods - Strengthening the laboratory infrastructure - Establishment of the information database - Establishment of the national monitoring and reporting system - Training for pollution reduction programs 	2009-2016
16	<p>Within the scope of capacity building efforts to implement the Council Directive No. 2006/113/EC of 12 December 2006 on the quality required of shellfish waters,</p> <ul style="list-style-type: none"> - Recruitment of personnel - Training of personnel - Setting up and enhancing the monitoring system - Equipment requirements 	2009

Table 27.3.6.2 (Continued)

No	Requirements (Ministry of Health)	Year
(Ministry of Health)		
17	<p>Within the scope of the Council Directive No. 76/160/EEC of 8 December 1975 concerning the quality of bathing water;</p> <ul style="list-style-type: none"> - Dissemination of standardized process procedures for bathing water analysis developed by Refik Saydam Hygiene Centre Presidency (RSHM) within the scope of “the Strengthening the Ministry of Health to Harmonize and Implement Legislation in Water for Public Health Protection” to 33 provincial public health laboratories which monitor bathing water, - Continuation of accreditation studies by Refik Saydam Hygiene Centre, - Establishment of a data base for 33 provinces where bathing water monitoring studies are carried out by developing the database prototypes prepared for the pilot provinces within the scope of the Water Twinning Project, - Personnel Training (identification of bathing waters, sampling, analysis, data collection, data flow, end of season reports, management of non-conformity situations, bathing water profiles, dissemination of information to the public) 	2009-2015
18	<p>Within the scope of the Directive No. 2006/7/EC;</p> <ul style="list-style-type: none"> - Establishment of data base systems, - Data collection, data analysis and evaluation, - Developing bathing water data sets, - Classification of bathing water quality, - Ensuring local and international reporting, - Updating/changing microbiological analysis methods, - Establishment of the laboratory infrastructure and provision of technical support regarding the Cyanobacteria analyses , - Identification of health risks resulting from cyanobacteria and algae and precautionary measures, - Ensuring coordination between relevant institutions and providing technical support in order to establish bathing water profiles, - Training of personnel in the central organizations of the Ministry, Refik Saydam Hygiene Centre (RSHM), provincial directorates of Ministry of Health, provincial public health laboratories , regional directorates of the Hygiene Centre, in order to implement the Directive, - Improving the studies for dissemination of information to the public. 	After 2015

3 Financial requirements and resources

Table 27.3.6.3.1

(Euro)

Requirements (Ministry of Environment and Forestry- General Directorate of Environmental Management)	Year	National Budget	EU sources	Other	Total
I-Investment					
(76/464/EEC) Strengthening the infrastructure of Ministry and laboratory (Laboratory equipment)	2009-2014	1,200,000	200,000		1,400,000
(76/464/EEC) Office needs of staff at the centre and at the provincial directorates	2009-2014	236,606			236,606
(91/271/ EEC) - Strengthening the infrastructure of Ministry and laboratory (laboratory equipments, office equipments, sampling equipments, consumables) - Equipments and software necessary for establishment of the central monitoring system	2009-2011	125,000	375,000		500,000
(91/271/ EEC) Construction, operation and renewal of wastewater treatment plants (these investments belong to municipalities) ⁴⁹	2007-2023	11,392,000,000	6,148,000,000	543,000,000 ⁵⁰	18,083,000,000
(75/440/ EEC, 79/869/ EEC) Equipment needs for the staff at the centre and in the provinces	2009-2010	64,841			64,841
(80/68/ EEC, 2006/118/ EC) Equipment needs for the staff at the centre and in the provinces	2010	122,658			122,658

⁴⁹ Dates and financial requirements were previously determined in the EU Integrated Environmental Approximation Strategy (UÇES) Document. The Financial requirement extends beyond the scope of the National Programme. It will be revised upon developments in time.

⁵⁰ To be financed by foreign credits.

Table 27.3.6.3.1 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry- General Directorate of Environmental Management)	Year	National Budget	EU sources	Other	Total
(80/68/ EEC, 2006/118/ EC) For monitoring, inspection and reporting ⁵¹ ; - Laboratories - Vehicles - Drilling of monitoring wells - Consumables - Hardware and software in order to build central monitoring system	2012	1,500,000	3,750,000		5,250,000
(91/271/EEC) Strengthening of computer network system for establishment of central monitoring system for sensitive areas, agglomerations, wastewater treatment plants and receiving water bodies	2009-2011	500,000	1,500,000		2,000,000
(86/278/EEC) - Establishment of a system for data collection and reporting	After 2011	200,000			200,000
(86/278/EEC) Office needs for personnel at the central and provincial level	2008-2009	65,662			65,662
(76/160/EEC) For monitoring, inspection and reporting - Laboratories - Vehicles - Consumables - Establishment of central monitoring system	2009-2015	95,763	287,290		383,053

⁵¹ Investment costs, defined for 80/68/EEC and 2006/118/EC Council Directives, indicate the total investment to be made by MoEF - General Directorate of Environmental Management and State Hydraulic Works required for the implementation of relevant directives of EU on groundwater. Through the projects to be proposed, it is envisaged to cover 3.750.000 Euro of investment costs from EU sources and 1.250.000 Euro from national budget and also operating cost of 250.000 Euro from national budget.

Table 27.3.6.3.1 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry- General Directorate of Environmental Management)	Year	National Budget	EU sources	Other	Total
II- Legislative approximation and implementation					
- Personnel					
(76/464/EEC) Recruitment of staff to the central and provincial organizations	2009-2014	12,873,264			12,873,264
(79/923/EEC, 2006/113/EC) Recruitment of staff to the central and provincial organizations	2009-2014	1,304,629			1,304,629
(76/160/EEC) Recruitment of staff for the central and provincial organizations	2009-2015	28,043,049			28,043,049
(75/440/EEC, 79/869/EEC) Recruitment of staff for the central and provincial organizations ⁵²	2009-2013	5,810,400			5,810,400
(80/68/EEC, 2006/118/AT) Recruitment of staff for the central and provincial organizations ⁵³	2010-2013	8,883,456			8,883,456
(91/676/EEC) Recruitment of staff for the central and provincial organizations	2008-2010	3,253,824			3,253,824
(91/271/EEC) Recruitment of staff for the central and provincial organizations	2009-2022	38,000,000			38,000,000
86/278/EEC) Recruitment of staff for the central and provincial Organizations	2008-2009	1,911,730			1,911,730

⁵² The cost of additional staff to be in charge of the mentioned directives were previously determined in the EU Integrated Environmental Approximation Strategy (UÇES) Document and will be financed by the national budget. The Financial requirement extends beyond the scope of the National Programme. It will be revised upon developments in time.

⁵³ The cost of additional staff to be in charge of the mentioned directives were previously determined in the EU Integrated Environmental Approximation Strategy (UÇES) Document and will be financed by the national budget. The Financial requirement extends beyond the scope of the National Programme. It will be revised upon developments in time.

Table 27.3.6.3.1 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry- General Directorate of Environmental Management)	Year	National Budget	EU sources	Other	Total
- Training					
(76/464/EEC) Training of industrial producers and seminar and workshop for training of trainees in provinces in order to organize the works that will be done	2009-2011		300,000		300,000
(76/464/EEC) Training for establishment of Environmental Quality Standards for Dangerous Substances	2009-2011		11,590		11,590
(76/464/EEC) Technical investigations in order to examine the implementations of clean production technologies in the Member States	2009-2011		200,000		200,000
(76/464/EEC) Training for provincial organizations and industrial producers	2009-2014		150,000		150,000
(76/464/EEC) Training for establishment of Pollution Reduction Programs	2009-2014		150,000		150,000
(79/923/EEC, 2006/113/EC) Preparation of Pollution Reduction Programmes and reporting monitoring results	2009-2014	10,000			10,000
(76/160/EEC) Training programme on the monitoring of bathing water quality	2015		137,500		137,500

Table 27.3.6.3.1 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry- General Directorate of Environmental Management)	Year	National Budget	EU sources	Other	Total
(75/440/EEC, 79/869/EEC) Home and abroad seminars on implementation periods and examples from Member States and their association with the Water Framework Directive ⁵⁴	2010		300,000		300,000
(75/440/EEC, 79/869/EEC) Home and abroad workshop/training seminar on determination of quality of surface waters intended to be used as drinking water, treatment techniques, measurements taken to protect these waters and sharing experiences with the Member States ⁵⁵	2010		300,000		300,000
(75/440/EEC, 79/869/EEC) Home and abroad training seminar on plans that are prepared or to be prepared to improve surface waters intended to be used as drinking water and especially in A3 category ⁵⁶	2011		150,000		150,000
(75/440/EEC, 79/869/EEC) Home and abroad training programmes on plans that are prepared or to be prepared to improve surface waters intended to be used as drinking water and especially in A3 category ⁵⁷	After 2011		150,000		150,000

⁵⁴The trainings are envisaged to be organized ensuring the participation of the staff of related institutions (including provincial and regional authorities). In order to meet the training needs from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

⁵⁵ The trainings are envisaged to be organized ensuring the participation of the staff of related institutions (including provincial and regional authorities). In order to meet the training needs from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

⁵⁶ The trainings are envisaged to be organized ensuring the participation of the staff of related institutions (including provincial and regional authorities). In order to meet the training needs from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

⁵⁷ The trainings are envisaged to be organized ensuring the participation of the staff of related institutions (including provincial and regional authorities). In order to meet the training needs from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

Table 27.3.6.3.1 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry- General Directorate of Environmental Management)	Year	National Budget	EU sources	Other	Total
(80/68/EEC, 2006/118/EC) Home and abroad training seminars for sharing experiences and implementation examples of Member States about harmonization and implementation period; to see the harmonization studies and implementation examples related to the new groundwater directive ; ⁵⁸	2010		185,000		185,000
(80/68/EEC, 2006/118/EC) Determination of groundwater protected areas and threshold values ⁵⁹	2010		50,000		50,000
(80/68/EEC, 2006/118/EC) Determination of groundwater protected areas and threshold values ⁶⁰	2011		50,000		50,000
(80/68/EEC, 2006/118/EC) Determination of groundwater protected areas and threshold values ⁶¹	After 2011		50,000		50,000
(80/68/EEC, 2006/118/EC) Determination of groundwater protected areas and threshold values ⁶²	After 2011		50,000		50,000
(86/278/EEC) - Training of trainers	2009		13,765		13,765
(86/278/EEC) - Training of the personnel employed in central and provincial organization of the Ministry on the implementation and inspection of the Directive	2009		119,642		119,642
(91/271/EEC) Home and abroad training of trainers	2009-2021	122,000	122,000		244,000

⁵⁸ The trainings are envisaged to be organized ensuring the participation of the staff of related institutions (including provincial and regional authorities). In order to meet the training needs from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

⁵⁹ The trainings are envisaged to be organized ensuring the participation of the staff of related institutions (including provincial and regional authorities). In order to meet the training needs from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

⁶⁰ The trainings are envisaged to be organized ensuring the participation of the staff of related institutions (including provincial and regional authorities). In order to meet the training needs from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

⁶¹ The trainings are envisaged to be organized ensuring the participation of the staff of related institutions (including provincial and regional authorities). In order to meet the training needs from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

⁶² The trainings are envisaged to be organized ensuring the participation of the staff of related institutions (including provincial and regional authorities). In order to meet the training needs from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

Table 27.3.6.3.1 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry- General Directorate of Environmental Management)	Year	National Budget	EU sources	Other	Total
(91/271/EEC) Training of the personnel of central and provincial organizations of the Ministry on the implementation of the Directive and inspection	2009-2021	433,000	433,000		866,000
(91/271/EEC) Study visit to examine implementations of Member States	2009-2021		250,000		250,000
- Consultancy					
(76/464/EEC) Consultancy service	2009-2014		200,000		200,000
(75/440/EEC, 79/869/EEC) Consultancy service ⁶³	2010-2011		270,000		270,000
(80/68/EEC,2006/118/EC) Consultancy service on harmonization and implementation period and sharing experiences of Member States ⁶⁴	2010		180,000		180,000
(80/68/EEC,2006/118/EC) Consultancy service on Groundwater monitoring, determination of groundwater protected areas and threshold values ⁶⁵	2011		180,000		180,000
(80/68/EEC,2006/118/EC) Consultancy service on Groundwater monitoring, determination of groundwater protected areas and threshold values ⁶⁶	After 2011		180,000		180,000
(80/68/EEC,2006/118/EC) Consultancy service on Groundwater monitoring, determination of groundwater protected areas and threshold values ⁶⁷	After 2011		180,000		180,000

⁶³ In order to finance consultancy services from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

⁶⁴ In order to finance consultancy services from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

⁶⁵ In order to finance consultancy services from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

⁶⁶ In order to finance consultancy services from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

⁶⁷ In order to finance consultancy services from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

Table 27.3.6.3.1 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry- General Directorate of Environmental Management)	Year	National Budget	EU sources	Other	Total
(91/271/EEC) Consultancy service	2009-2011		75,000		75,000
(86/278/EEC) Consultancy service	2009-2010		200,000		200,000
- Translation					
(76/464/EEC); - Simultaneous translation - Translation of Guidance Documents and case studies of Member States. (1500 pages)	2009-2014		50,000		50,000
(75/440/EEC, 79/869/EEC); - Simultaneous translation - Translation of Guidance Documents and case studies of Member States (1500 pages)	2009-2010		50,000		50,000
(80/68/EEC,2006/118/EC); - Simultaneous translation - Translation of Guidance Documents and case studies of Member States (1500 pages)	2008-2009		50,000		50,000
(86/278/EEC); - Simultaneous translation - Translation of Guidance Documents and case studies of Member States.	2009-2010		80,000		80,000
(76/464/EEC); - Simultaneous translation - Translation of country case studies and guidance documents for the implementation of the directive. (1500 pages)	2009-2014		50,000		50,000

Table 27.3.6.3.1 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry- General Directorate of Environmental Management)	Year	National Budget	EU sources	Other	Total
(91/271/EEC) - Simultaneous translation(seminar and workshop) (10 meetings) - Translation of Guidance Documents and country case studies (1000 pages)	2009-2011		50,000		50,000
- Other					
Total		11,496,755,882	6,159,079,787	543,000,000	18,198,835,669

Table 27.3.6.3.2

(Euro)

Requirements (Ministry of Environment and Forestry- General Directorate of State Hydraulic Works)	Year	National Budget	EU sources	Other	Total
I-Investment					
(80/68/ EEC, 2006/118/ EC) equipment for central and regional staff ⁶⁸	2010	64,652			64,652
II- Legislative approximation and implementation					
- Personnel					
Directive No. 75/440/EEC concerning the quality required of surface water intended for the abstraction of drinking water in the Member States and Directive No. 79/869/EEC concerning the methods of measurement and frequencies of sampling and analysis of surface water intended for the abstraction of drinking water in the Member States	2009-2011	1,800,000			1,800,000
(80/68/EEC, 2006/118/EC) Staff recruitment at central and provincial level ⁶⁹	2010-2013	3,873,600			3,873,600
- Training					
Directive No. 75/440/EEC concerning the quality required of surface water intended for the abstraction of drinking water in the Member States and Directive No. 79/869/EEC concerning the methods of measurement and frequencies of sampling and analysis of surface water intended for the abstraction of drinking water in the Member States	2009-2011		100,000		100,000

⁶⁸ Office equipment cost will be financed from the national budget.

⁶⁹ Cost of additional staff to be in charge of the mentioned directives were previously determined in the EU Integrated Environmental Approximation Strategy (UÇES) Document and will be financed by the national budget. The Financial requirement extends beyond the scope of the National Programme. It will be revised upon developments in time.

Table 27.3.6.3.2 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry- General Directorate of State Hydraulic Works)	Year	National Budget	EU sources	Other	Total
(80/68/EEC, 2006/118/EC) Home and abroad training seminars for sharing experiences and implementation examples of Member States about harmonization and implementation period; Examining harmonization studies and implementation examples related with the new ground water directive ⁷⁰	2010		92,500		92,000
(80/68/EEC, 2006/118/EC) Determination of groundwater protected areas and threshold values ⁷¹	2010		50,000		50,000
(80/68/EEC, 2006/118/EC) Determination of groundwater protected areas and threshold values ⁷²	2011		100,000		100,000
(80/68/EEC, 2006/118/EC) Determination of groundwater protected areas and threshold values ⁷³	After 2011		50,000		50,000
91/676/EEC Protection of Waters Against Pollution Caused by Nitrates from Agricultural Sources; (Monitoring eutrophication in Dam lakes)	2009-2011		80,000		80,000
- Consultancy					
Council Directive No. 75/440/EEC concerning the quality required of surface water intended for the abstraction of drinking water in the Member States and Council Directive No. 79/869/EEC concerning the methods of measurement and frequencies of sampling and analysis of surface water intended for the abstraction of drinking water in the Member States	2009-2011		300,000		300,000

⁷⁰ The trainings are envisaged to be organized ensuring the participation of the staff of related institutions (including provincial and regional authorities). In order to meet the training needs from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

⁷¹ The trainings are envisaged to be organized ensuring the participation of the staff of related institutions (including provincial and regional authorities). In order to meet the training needs from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

⁷² The trainings are envisaged to be organized ensuring the participation of the staff of related institutions (including provincial and regional authorities). In order to meet the training needs from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

⁷³ The trainings are envisaged to be organized ensuring the participation of the staff of related institutions (including provincial and regional authorities). In order to meet the training needs from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

Table 27.3.6.3.2 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry- General Directorate of State Hydraulic Works)	Year	National Budget	EU sources	Other	Total
(80/68/EEC,2006/118/EC) Consultancy service on Groundwater monitoring, determination of groundwater protected areas and threshold values ⁷⁴	2011		300,000		300,000
(80/68/EEC,2006/118/EC) Consultancy service on Groundwater monitoring, determination of groundwater protected areas and threshold values ⁷⁵	After 2011		150,000		150,000
2007/60/EC Directive on the Assessment and Management of Flood Risks	2009-2011		1,000,000		1,000,000
- Translation					
- Other					
Council Directive No. 75/440/EEC concerning the quality required of surface water intended for the abstraction of drinking water in the Member States and Council Directive No. 79/869/EEC concerning the methods of measurement and frequencies of sampling and analysis of surface water intended for the abstraction of drinking water in the Member States and Council Directive No. 80/68/EEC (Laboratory consumables and chemical equipment)	2009-2011	300,000			300,000
Total		6,038,252	2,222,500		8,260,752

⁷⁴ In order to finance consultancy services from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

⁷⁵ In order to finance consultancy services from EU sources, TAIEX and MATRA Programmes are planned to be resorted.

Table 27.3.6.3.3

(Euro)

Requirements (Ministry of Agriculture and Rural Affairs)	Year	National Budget	EU sources	Other	Total
I-Investment					
(91/676/EEC) - Portable Water Sampling Equipments - Purchase of chemicals - Computer network system - Mobile Laboratories - Training materials - Laboratory Equipments	2008-2010	941,250	2,823,750		3,765,000
(2006/44/EC) - Purchase of laboratory equipments - Purchase of consumables	2009-2016	1,300,000	3,600,000		4,900,000
(79/923/EEC, 2006/113/EC) - Ensuring sampling equipment from the shellfish production areas	2009	50,000			50,000
(79/923/EEC, 2006/113/EC) - Setting up a monitoring system for shellfish production areas.	2009	225,000			225,000
II- Legislative approximation and implementation					
- Personnel					
(91/676/EEC) Recruitment of staff	2008-2011	26,030,592			26,030,592
(2006/44/EC) Recruitment of staff	2009-2015	30,007,488			30,007,488
(79/923/EEC, 2006/113/EC) Recruitment of staff for central and provincial organizations	2009	227,340			227,340

Table 27.3.6.3.3 (Continued)

(Euro)

Requirements (Ministry of Agriculture and Rural Affairs)	Year	National Budget	EU sources	Other	Total
- Training					
(91/676/EEC); Water Management	2009	50,000	100,000		150,000
(91/676/EEC); Training on thematic subjects including, but not limited to, EU Framework and legislation.	2009	50,000	100,000		150,000
(91/676/EEC); Training on using mobile laboratories	2009	50,000	200,000		250,000
(91/676/EEC); Training on soil and water pollution laboratories, sampling with field analysis techniques, preparation for research and evaluation.	2009	75,000	300,000		375,000
(91/676/EEC); Implementation of nitrate directive (including monitoring and analysis)	2009	50,000	100,000		150,000
(91/676/EEC); Good agricultural practices	2009	25,000	500,000		525,000
(91/676/EEC); Reporting	2009	25,000	50,000		75,000
(91/676/EEC); Evaluation of collected data and pollution maps	2010	50,000	100,000		150,000
(91/676/EEC); Good agricultural practices codes and implementations of thereof	2010	50,000	200,000		250,000
(91/676/EEC); Manure management	2010	25,000	150,000		175,000

Table 27.3.6.3.3 (Continued)

(Euro)

Requirements (Ministry of Agriculture and Rural Affairs)	Year	National Budget	EU sources	Other	Total
(91/676/EEC); Irrigation management	2010	25,000	50,000		75,000
(91/676/EEC); Land use management	2010	25,000	50,000		75,000
(2006/44/EC); Training on implementation of the regulation	2009	30,000	58,000		88,000
(2006/44/EC); Fish fieldwork	2009	30,000	58,000		88,000
(2006/44/EC); Establishment of an efficient water quality sampling and monitoring system	2009	30,000	58,000		88,000
(2006/44/EC); Fish fieldwork	2010	40,000	88,000		128,000
(2006/44/EC); Establishment of an efficient water quality sampling and monitoring system	2010	40,000	88,000		128,000
(2006/44/EC); Training on Information Database	2011	90,000	180,600		270,600
(2006/44/EC); Preparation of Pollution Reduction Programmes	2013	90,000	170,100		260,100
(79/923/EEC, 2006/113/EC) Training of personnel	2009	5,000			5,000

Table 27.3.6.3.3 (Continued)

(Euro)

Requirements (Ministry of Agriculture and Rural Affairs)	Year	National Budget	EU sources	Other	Total
- Consultancy					
(91/676/EEC); Consultancy Service (Training Requirement Analysis Report)	2009		189,000		189,000
(91/676/EEC); Consultancy Service (Thematic issues including EU Legislation)	2009		281,000		281,000
(91/676/EEC); Consultancy Service (Soil and water pollution laboratories sampling with field analysis techniques , preparation for research and evaluation)	2009		200,000		200,000
(91/676/EEC); Consultancy Service (Good agricultural practices codes and implementations)	2009		160,000		160,000
(91/676/EEC); Consultancy Service (Using mobile laboratories)	2010		170,000		170,000
(2006/44/EC); Consultancy Service (Classification of Water Structures)	2009-2010		38,000		38,000
(2006/44/EC); Consultancy Service (Determination of sampling points and analysis methods)	2009-2010		38,000		38,000
- Translation					
- Other					
Total		59,636,670	10,100,450		69,737,120

Table 27.3.6.3.4

(Euro)

Requirements (Ministry of Health)	Year	National Budget	EU sources	Other	Total
I-Investment					
(76/160/EEC) Making necessary network connections of provinces that are monitoring bathing water by improving the bathing water database prototype and composing a database system ⁷⁶	2009-2011	60,000	60,000		120,000
(2006/7/EC) Software for bathing water database	2015	40,000			40,000
(2006/7/EC) Establishing laboratory infrastructure suitable for cyanobacteria and algae analysis	After 2015	40,000			40,000
II- Legislative approximation and implementation					
- Personnel⁷⁷					
(76/160/EEC) Monitoring bathing water quality, bathing water analysis and bathing water quality assessment practices.	2009-2015	97,658,463			97,658,463
(2006/7/EC) Monitoring bathing water quality, bathing water analysis and bathing water quality assessment practices.	After 2015	97,658,463			97,658,463

⁷⁶ Part of the investment requirement for extending the database of 76/160/EC is planned to be financed by EU sources.

⁷⁷ The cost of additional staff to be in charge of the mentioned directives were previously determined in the EU Integrated Environmental Approximation Strategy (UÇES) Document and will be financed by the national budget. The Financial requirement extends beyond the scope of the National Programme. It will be revised upon developments in time.

Table 27.3.6.3.4 (Continued)

(Euro)

Requirements (Ministry of Health)	Year	National Budget	EU sources	Other	Total
- Training ⁷⁸					
(76/160/EEC) Training on monitoring bathing water quality, bathing water analysis and bathing water quality assessment - Ministry - Provincial directorates - Refik Saydam Hygiene Centre - Public Health and Regional Directorate for Hygiene laboratories	2009-2015	362,279			362,279
(2006/7/EC) For implementation; Training of the personnel employed in central organization of the Ministry, Refik Saydam Hygiene Centre (RSHS), provincial directorates of Ministry of Health, provincial laboratories for public health and regional directorates for hygiene Centre,	After 2015	300,000	300,000		600,000
- Consultancy					
- Translation					
- Other					
Total		196,119,205	410,000		196,489,205

⁷⁸ In order to meet training needs from EU sources, TAIEX and similar programmes are planned to be resorted.

Sub-priority 27.3.7 Nature Protection and Genetically Modified Organisms

1 Schedule of legislative alignment

Table 27.3.7.1

No	EU legislation in force	Draft Turkish legislation	Scope	Institution in charge	Publication date
1	Directives No. 92/403/EEC and No.79/409/EEC	Law on Nature and Biodiversity Protection	Conservation of natural values, biodiversity and genetic resources of Turkey and ensuring their sustainable use on a plan basis considering the balance between the conservation and use ; contributing to sustainable development of Turkey for present and future generations; providing a system of protected areas network, with designation criteria and management responsibilities for the protection of Turkey's biological diversity; ensuring continuity of ecosystems, species and their habitats and biological functionality; ensuring protection of the characteristics and beauty of nature and biodiversity and recreational resources; ensuring protection of non-living natural assets and assets along with cultural values and landscape of the Country.	Ministry of Environment and Forestry	After 2011
2	Directives No. 98/81/EC and 2001/18/EC Regulation No. 1946/2003	Biosafety Law	Establishing, developing, implementing and managing the biosafety system as an entire system to address biosafety issues to ensure the advance determination, inhibition and/or minimizing, and controlling unforeseen possible adverse effects of GMOs and products thereof that are developed by using modern biotechnology, consistent with the Cartagena Protocol on Biosafety and EU legislation.	Ministry of Agriculture and Rural Affairs	2009-2010

Table 27.3.7.1 (Continued)

No	EU legislation in force	Draft Turkish legislation	Scope	Institution in charge	Publication date
3	Regulations No. 338/97 and 865/2006	Amendment to the Implementing Regulation on the Implementation of the Convention in International Trade of Endangered Wild Fauna and Flora Species	- Implementation of the CITES Convention - Defining areas for which the administrative and scientific authorities are responsible and regulating methods and principles related to permits and certificates in those areas - Regulating international trade of wild flora and fauna species	Ministry of Environment and Forestry	2010
4	Regulation No. 3254/91	Legislation regarding the Use of Leghold Traps Pelts and Prohibition of Import of Manufactured Goods which Provide by Leghold Traps Pelts Animal Leathers in the EU Countries	Prohibiting use of leghold traps method and forbidding importation of products obtained from animals by means of leghold traps	Ministry of Environment and Forestry	2010

2 Schedule of institutional capacity building requirements necessary for legislative approximation and implementation

Table 27.3.7.2

No	Requirements	Year
(Ministry of Environment and Forestry – General Directorate of Nature Protection and National Parks)		
1	<p>According to the Council Regulation No. 338/97 of 9 December 1996 on the protection of species of wild fauna and flora by regulating trade therein (OJ L 061 03.03.1997 p. 1)</p> <ul style="list-style-type: none"> - Establishment of CITES Office/ offices (Details of Draft CITES Office have been take place in the Strategy Document but the date haven't been determined yet. - Initiation of studies for the establishment of a scientific authority which will be responsible for education and scientific evaluation, orientation and development of a strategy (including education and research centre and nature museum) - Computer based compiling of data which will be used for the identification of CITES species - Standardization of CITES permits and establishment of a databank - Establishment of an information network for related institutions and public - Establishment of conservation, control and monitoring systems for CITES species - Stakeholder training and information meeting - Capacity building of related institution for CITES Implementation - Strengthening of infrastructure of Ministry of Environment and Forestry for effective national and international coordination related to the CITES Legislation - Preparation of ID Manuals and support to the research to determine the endangered wild flora and fauna due to international trade to be added to the CITES Annexes - Establishment of rescue and rehabilitation centres for animals captured or confiscated due to illegal trade or other reasons ⁷⁹ 	2009-2011
2	<p>In order to Implement the Draft Law on Nature and Biodiversity Protection;</p> <ul style="list-style-type: none"> - Establishment of a Nature Protection Scientific Authority and fulfillment of technical infrastructure needs - Establishment of the Nature Protection Institutions and fulfillment of technical infrastructure needs 	After 2011

⁷⁹ Details will be clarified within the scope of projects to be submitted to the Pre-Accession Financial Assistance 2009 and beyond Programmes and to SEI or TAIEX.

Table 27.3.7.2 (Continued)

No	Requirements	Year
3	<p>Council Directive No. 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora which is amended by Commission Directive 97/62/EC and Council Directive No. 97/49/EC of 29 July 1997 amending Directive No. 79/409/EEC on the conservation of wild birds⁸⁰;</p> <ul style="list-style-type: none"> - Putting Draft Law on Nature and Biodiversity Protection into force - Establishment of a scientific committee which will carry out consultation related to biodiversity - Review of existing status of protected areas, carrying out biotope/habitat classification and mapping for protected areas and evaluation of potential Natura 2000 areas. - Establishment of an administrative structure for implementation of Natura 2000 network and initiation of studies for the establishment of a scientific authority which will be responsible for evaluation of education and scientific issues and development of a strategy (including education and research centre and the natural museum) - Capacity building (including existing staff training and new staff employment) and strengthening of the technical structure - Organization of information and awareness raising campaigns for related stakeholders - Within the scope of improving the technical structure of biodiversity monitoring systems; establishment of a data base system, determination of monitoring indicators and establishment of the institutional structure for monitoring - Carrying out studies to examine all species and habitats within the scope of the Habitat and Bird Directives - Strengthening capacity for financial aspects, staff and equipment at local level in order to establish a network for protected areas. - Establishment of coordination mechanism between the related institutions for natural protection management, rehabilitation and restoration at local, regional and national level - Determination and Implementation of incentive and measures for protection of biodiversity and development of appropriate financial mechanisms - Integration/Improvement of Ecological Impact Assessments in protected areas into decision making mechanisms for all politics, plans and projects 	2010-2013 ⁸¹
(Ministry of Agriculture and Rural Affairs-General Directorate of Agriculture Researches)		
4	Purchase of equipment, recruitment and training of personnel in order to implement the Biosafety Law, which will be published with a view to transposing and implementing the directives regarding Genetically modified organisms, within the present structure	2009-2012

⁸⁰ Studies within the scope of twinning component of the project titled "Capacity-Building for Turkey in the Field of Environment" under Pre-Accession Financial Assistance 2002 Programme were finalised in July 2006. The studies conducted within the scope of the above mentioned project for harmonization and implementation of EU Directives is in their early stages. Appropriate rearrangements could be made in the tables above in accordance with the data obtained from the results of the projects that will be submitted to the European Union-Turkey Pre-Accession Financial Aid 2009 and post-2009 IPA and SEI Programs. Moreover, through the implementation plans that could be obtained from abovementioned project proposals, within the framework of full harmonization and implementation of Habitat-Bird Directives, more accurate results could be reached with the transposition and implementation schedules related to the institutional infrastructure needs.

⁸¹ Harmonization to the related EU acquis will be ensured within the framework of full membership perspective.

3 Financial requirements and resources

Table 27.3.7.3.1

(Euro)

Requirements (Ministry of Environment and Forestry)	Year	National Budget	EU sources	Other	Total
I-Investment					
(3254/91/ EEC) Purchase of Equipment	2009	67,000			67,000
II- Legislative approximation and implementation					
- Personnel					
(338/97/EC) Staff recruitment	2009-2011	955,488			955,488
(99/22/ EC) Staff recruitment	2009	1,045,872			1,045,872
(3254/91/EEC) Staff recruitment	2009	69,720			69,720
(92/43/EEC, 79/409/EEC) Additional personnel	2011-2012	4,688,110			4,688,110
- Training					
(338/97/EC) Domestic training	2008-2010	15,000	15,000		30,000
(338/97/EC)) Study visits to Member States	2009-2011		50,000		50,000
(3254/91/EEC)	2009	20,000			20,000
(92/43/EEC, 79/409/EEC) Study visits to Member States ⁸²	2010-2013	895,000	50,000		945,000

⁸² In order to perform each component of institutional capacity building measures required for legislative alignment and implementation, training support is envisaged within the context of mentioned projects. The schedule and implementation plan regarding training requirements will be prepared through mentioned projects and the indicated numbers may be revised within the framework of this "schedule and implementation plan".

Table 27.3.7.3.1 (Continued)

(Euro)

Requirements (Ministry of Environment and Forestry)	Year	National Budget	EU sources	Other	Total
-Consultancy					
(92/43/EEC, 79/409/EEC) Consultancy service in order to implement Habitat and Bird Directives and to carry out evaluations regarding the Natura 2000 areas ⁸³	2010-2013	850,000	7,650,000		8,500,000
- Translation					
(338/97/EC)	2008-2010		50,000		50,000
(92/43/EEC, 79/409/EEC)	2010-2013	50,000			50,000
- Other					
Total		8,656,190	7,815,000		16,471,190

⁸³ To be implemented within the scope of projects to be submitted to the Pre-Accession Financial Assistance 2009 and Future Programmes and to SEI or TAIEX and the indicated numbers may be revised.

Table 27.3.7.3.2

(Euro)

Requirements (Ministry of Agriculture and Rural Affairs-General Directorate of Agriculture Researches) ⁸⁴	Year	National Budget	EU sources	Other	Total
I-Investment					
Purchase of laboratory equipment	2009-2010	6,286,000			6,286,000
II- Legislative approximation and implementation					
- Personnel					
Personnel recruitment	2009-2012	7,428,000			7,428,000
- Training					
Training for the alignment of preventive and other protective measures in line with general principles of Directives.	2009-2010	6,286,000			6,286,000
- Consultancy					
- Translation					
- Other					
Total		20,000,000			20,000,000

⁸⁴ Financial requirements for the recruitment of the personnel and trainings have been figured out based on the Draft Biodiversity Law. Figures may be revised depending on the possible changes after the enactment of the mentioned law.

Priority 27.4 Follow-up of the integration of environmental requirements to sectoral policies

1 Schedule of legislative alignment

No legislative alignment study is envisaged under this priority at this stage.

2 Schedule of institutional capacity building requirements necessary for legislative approximation and implementation

Table 27.4.2

No	Requirements	Year
(Undersecretariat of State Planning Organization)		
1	National Sustainable Development Indicator Set and relevant index will be developed. In this context, data compilation will be initiated by related institutions.	2009-2010

3 Financial requirements and resources

Table 27.4.3

(Euro)

Requirements (State Planning Organization)	Year	National Budget	EU sources	Other	Total
I-Investment					
II- Legislative approximation and implementation					
- Personnel					
- Training					
- Consultancy					
Consultancy for preparation of indicator set and developing relevant index.	2009	50,000			50,000
- Translation					
- Other					
Total		50,000			50,000

BIBLIOGRAPHY

Primary Sources:

45th Government Program of Republic of Turkey. Web:
<http://www.tbmm.gov.tr/hukumetler/hp45.htm> Accessed on 27.05.2010

46th Government Program of Republic of Turkey. Web:
<http://www.tbmm.gov.tr/hukumetler/hp46.htm>

47th Government Program of Republic of Turkey. Web:
<http://www.tbmm.gov.tr/hukumetler/hp47.htm> Accessed on 27.05.2010

48th Government Program of Republic of Turkey. Web:
<http://www.tbmm.gov.tr/hukumetler/hp48.htm> Accessed on 27.05.2010

49th Government Program of Republic of Turkey. Web:
<http://www.tbmm.gov.tr/hukumetler/hp49.htm> Accessed on 27.05.2010

50th Government Program of Republic of Turkey. Web:
<http://www.tbmm.gov.tr/hukumetler/hp50.htm> Accessed on 27.05.2010

51st Government Program of Republic of Turkey. Web:
<http://www.tbmm.gov.tr/hukumetler/hp51.htm> Accessed on 27.05.2010

52nd Government Program of Republic of Turkey. Web:
<http://www.tbmm.gov.tr/hukumetler/hp52.htm> Accessed on 27.05.2010

53rd Government Program of Republic of Turkey. Web:
<http://www.tbmm.gov.tr/hukumetler/hp53.htm> Accessed on 27.05.2010

54th Government Program of Republic of Turkey. Web:
<http://www.tbmm.gov.tr/hukumetler/hp54.htm> Accessed on 27.05.2010

55th Government Program of Republic of Turkey. Web:
<http://www.tbmm.gov.tr/hukumetler/hp55.htm> Accessed on 27.05.2010

56th Government Program of Republic of Turkey. Web:
<http://www.tbmm.gov.tr/hukumetler/hp56.htm> Accessed on 27.05.2010

57th Government Program of Republic of Turkey. Web:
<http://www.tbmm.gov.tr/hukumetler/hp57.htm> Accessed on 27.05.2010

58th Government Program of Republic of Turkey. Web:
<http://www.tbmm.gov.tr/hukumetler/hp58.htm> Accessed on 27.05.2010

59th Government Program of Republic of Turkey. Web:
<http://www.tbmm.gov.tr/hukumetler/hp59.htm> Accessed on 27.05.2010

60th Government Program of Republic of Turkey. Web:
<http://www.tbmm.gov.tr/hukumetler/hp60.htm> Accessed on 27.05.2010

Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 1998.

Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 1999.

Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2000.

Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2001.

Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2002.

Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2003.

Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2004.

Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2005

Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2006

Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2007

Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2008

Commission of the EU, *Regular Report on Turkey's Progress towards Accession*, Brussels, 2009

Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions on the Sixth Environment Action Programme of the European Community, "Environment 2010: Our future, Our choice" COM 31 final, 2001

Council Decision of 8 March 2001 on the principles, priorities, intermediate objectives and conditions contained in the Accession Partnership with the Republic of Turkey (2001/235/EC)

Council Decision of 13 April 2003 on the principles, priorities, intermediate objectives and conditions contained in the Accession Partnership with the Republic of Turkey.

Council Decision of 18 February 2008 on the principles, priorities, intermediate objectives and conditions contained in the Accession Partnership with the Republic of Turkey.

Council Directive 92/43/EEC of 21 May 1992

Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances

Council Directive of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment 85/337/EEC

Council Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control.

Council Directive 79/409/EEC on the conservation of wild birds

Council Directives 92/43/EEC of 21 May 1992 On the conservation of natural habitats and of wild fauna and flora

Council Directive (75/442/EEC) of 15 July 1975 on waste

Council Directive 78/319/EEC of 20 March 1978 on toxic and dangerous waste

Council Directive 84/631/EEC on the supervision and control within the European Community of the transfrontier shipment of hazardous waste

Council Regulation (EEC) No 1210/90 of 7 May 1990 on the establishment of the European Environment Agency and the European Environment Information and Observation Network

Council Regulation (EEC) No 880/92 of 23 March 1992 on a Community eco-label award scheme

Council Regulation (EEC) No 1836/93 of 29 June 1993 on Eco-Management and Audit Scheme

Council Regulation (EC) No 338/97 of 9 December 1996 on the protection of species of wild fauna and flora by regulating trade therein

Çevre ve Orman Bakanlığı 2010 – 2014 Stratejik Planı, 2009.

Decree Having Force Of Law No: 443, article. 29, date: 21.08.1991.

Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy

European Commission (EC) (2007). Sustainable Development: Together for Tomorrow. The Renewed European Sustainable Development Strategy 2006.

Environment Code No. 2872, 09.08.1983

Environment Code No. 2872, 09.08.1983 (before the 2006 amendment)

Environment section of the National Program for the Adoption of the Acquis, 2008.

EU Integrated Environmental Approximation Strategy (2007 - 2023), Ministry of Environment and Forestry, [http: www.did-cevreorman.gov.tr](http://www.did-cevreorman.gov.tr) Accessed on 27.05.2010

Global Framework Contract-Environment: Analysis of Environmental Legislation for Turkey, Carl Bro, August 2002 (*MEDA/TUR/ENLARG/D4-01*)

Health Services Principal Code, No: 3369, 15.05.1987

Law No.4990 in the Official Gazette on 16 October 2003

Regulation (EC) No 2037/2000 of the European Parliament and of the Council of 29 June 2000 on substances that deplete the ozone layer

Regulation 1210/90/EEC, amended by Regulation 933/99/EC.

Regulation on Air Quality Control OJ 19269 – 02.11.1986

Regulation on Water Pollution Control OJ 25687 - 31.12.2004

Regulation on Solid Waste Control OJ20814 – 14.03.1991

Regulation on Medical Wastes Control OJ 25883 – 22.07.2005

Regulation on Hazardous Wastes Control OJ 25755 – 14.03.2005

Regulation on Noise OJ 25325 - 23.12.2003

State Institute of Statistics Environmental Statistics: Municipal Solid Waste Statistics (1991), Ankara, 1994.

State Planning Organization, “*First Five Year Development Plan*”, State Planning Organization Pub., Ankara, 1963. Web: <http://ekutup.dpt.gov.tr/plan1.pdf>

State Planning Organization, “*Second Five Year Development Plan*”, State Planning Organization Pub., Ankara, 1968. Web: <http://ekutup.dpt.gov.tr/plan2.pdf> Accessed on 27.05.2010

State Planning Organization, “*Third Five Year Development Plan*”, State Planning Organization Pub., Ankara, 1973. Web: <http://ekutup.dpt.gov.tr/plan3.pdf> Accessed on 27.05.2010

State Planning Organization, “*Fourth Five Year Development Plan*”, State Planning Organization Pub., Ankara, 1979. Web: <http://ekutup.dpt.gov.tr/plan4.pdf> Accessed on 27.05.2010

State Planning Organization, “*Fifth Five Year Development Plan*”, State Planning Organization Pub., Ankara, 1985. Web: <http://ekutup.dpt.gov.tr/plan5.pdf> Accessed on 27.05.2010

State Planning Organization, “*sixth Five Year Development Plan*”, State Planning Organization Pub., Ankara, 1990. Web: <http://ekutup.dpt.gov.tr/plan6.pdf> Accessed on 27.05.2010

State Planning Organization, “*Seventh Five Year Development Plan*”, State Planning Organization Pub., Ankara, 1996 Web: <http://ekutup.dpt.gov.tr/plan7.pdf> Accessed on 27.05.2010

State Planning Organization “İller İtibariyle Çeşitli Göstergeler” Bölgesel Gelişme ve Yapısal Uyum Genel Müdürlüğü, Ankara, 1995.

State Planning Organization, “*Eighth Five Year Development Plan*”, State Planning Organization Pub., Ankara, 2001 Web: <http://ekutup.dpt.gov.tr/plan8.pdf> Accessed on 27.05.2010

State Planning Organization, “*Ninth Development Plan: The Special Expertise Report on Environment*” State Planning Organization Pub., Ankara, 2007

State Planning Organization, “National Environmental Action of Turkey”, Ankara, 1999

Turkish National Program for the Adoption of Acquis (NPAA), 2001

Turkish National Program for the Adoption of Acquis (NPAA), 2003

Turkish National Program for the Adoption of Acquis (NPAA), 2008

UNFCCC, 1992, United Nations Framework Convention on Climate Change, <http://unfccc.int/2860.php> Accessed on 27.05.2010

Secondary Sources:

Adaman, Fikret and Murat Arsel. “Introduction” in Fikret Adaman and Murat Arsel (eds) *Environmentalism in Turkey Between Democracy and Development*, Burlington, Ashgate Publishing Company, pp. 1- 15, 2005.

Adem, Çiğdem. “Non-State Actors and Environmentalism” in Fikret Adaman and Murat Arsel (eds) *Environmentalism in Turkey Between Democracy and Development*, Burlington, Ashgate Publishing Company, pp. 71 – 87, 2005.

Akdur, Recep. *Avrupa Birliđi ve Türkiye 'de Çevre Koruma Politikaları: Türkiye 'nin Avrupa Birliđine Uyumu*, Ankara: Ankara University Pub., 2005

Aksoy, Zühre. "Biodiversity and Biotechnology in the Agriculture Sector", in Fikret Adaman and Murat Arsel (eds) *Environmentalism in Turkey Between Democracy and Development*, Burlington, Ashgate Publishing Company, 235 – 249, 2005.

Alexander, Gerard. "Institutions, Path Dependence, and Democratic Consolidation." *Journal of Theoretical Politics*, 13(3): 249-270, 2001.

Algan, Nesrin and Ayşe K. Dünder. "*Türkiye 'nin Çevre Konusunda Verdiđi Sözler*", TÜBA, Ankara, 2004.

Arthur, Brian. "*Increasing Returns and Path Dependence in the Economy*" Ann Arbor: University of Michigan Pres, 1994.

Aspinwall, Mark D. & Gerald Schneider, 'Same Menu, Separate Tables: The Institutionalist Turn in Political Science and the Study of European Integration' *European Journal of Political Research* Vol. 38, pp. 1 – 36, 2000.

Bache, Ian. "Europeanization: A Governance Approach", EUSA 8th International Biennial Conference, Nashville, March 27-29, 2003.

Bates, Robert. "Contra Contractarianism: Some Reflections on the New Institutionalism" *Politics and Society* 16 (3), pp. 387 – 401, 1988.

Blatter, Joachim. "Beyond Hierarchies and Networks: Institutional Logics and Change in Transboundary Space", *Governance: An International Journal of Policy, Public Administration and Institutions* 16(4), pp. 503 – 526, 2003.

Börzel, Tanja A and Thomas Risse-Kappen. "Conceptualizing the domestic impact of Europe" In *The politics of Europeanization.*, eds. Kevin Featherstone, Claudio M. Radaelli. Oxford: Oxford University Press, pp. 57 – 83, 2003.

Börzel, Tanja A. *States and regions in the European Union: Institutional adaptation in Germany and Spain*. Cambridge, UK: Cambridge University Press, 2002.

Börzel, Tanja A. "Europeanization and territorial institutional change: Toward cooperative regionalism?" In *Transforming Europe: Europeanization and domestic change*. eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y.: Cornell University Press, pp. 137 -159, 2001.

Börzel Tanja A. and Thomas Risse. "When Europe Hits Home: Europeanization and Domestic Change" *EUI Working Paper RSC* No. 2000/56, 2000.

Börzel, Tanja. 'Towards Convergence in Europe? Institutional Adaptation to Europeanization in Germany and Spain'. *Journal of Common Market Studies* 37 (4): 573-596, 1999.

Bulmer, Simon J. "New institutionalism and the governance of the Single European Market" *Journal of European Public Policy* 5(3): 365-386, 1998.

Button, Kenneth John, Kingsley E. Haynes, and Roger Stough, *Flying into the future: Air transport policy in the European Union*. Northampton, MA: Edward Elgar. 1998.

Campbell, John L. *Institutional Change and Globalization*. ' Princeton and Oxford: Princeton University Press, 2004.

Carey, John M. 'Parchment, Equilibria, and Institutions.' *Comparative Political Studies* 33(6): 735-761, 2000.

Carter, Neil. 'Transforming Environmental Policy: Does Europe Lead the Way?' *Environmental Politics* Vol. 16, No. 3, pp. 523 -528, 2007.

Checkel, Jeffrey T. "The Europeanization of citizenship?" In *Transforming Europe: Europeanization and domestic change*., eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y: Cornell University Press, pp. 180 – 198, 2001.

Colomy, Paul. "Neofunctionalism and Neoinstitutionalism: Human Agency and Interest in Institutional Change", *Sociological Forum*, 13(2):265-300, 1998.

Cortell, Andrew P. and Susan Peterson. "Altered States: Explaining Domestic Institutional Change" *British Journal of Political Science* 29, pp. 177 – 203, 1999.

Conant, Lisa. "Europeanization and the courts: Variable patterns of adaptation among national judiciaries." In *Transforming Europe: Europeanization and domestic change.*, eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y.: Cornell University Press, pp. 97 -116, 2001.

Cox, Robert. "The Path-Dependency of an Idea: Why Scandinavian Welfare State Remain Distinct" *Social Policy and Administration* 38(2): 204-219, 2004.

Cowles, Maria Green. "The transatlantic business dialogue and domestic businessgovernment relations." In *Transforming Europe: Europeanization and domestic change.*, eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y.: Cornell University Press, pp. 159 – 180, 2001.

Damania, Richard. 'Political lobbying and the choice of environmental policy instruments' *Environmental Modelling & Software*, Volume 16, Issue 6, pp. 509 – 515, 2001.

Diez, Thomas, Apostolos Agnantopoulos and Alper Kaliber. 'Turkey, Europeanization and Civil Society' *South European Society and Politics* 10 (1), pp. 1-15, 2005.

DiMaggio, Paul J. and Walter W. Powell. (Eds.). *The New Institutionalism in Organization Analysis*. Chicago: University of Chicago Press, 1991.

Dimitrakopoulos, Dionyssi G. "Incrementalism and Path Dependence: European Integration and Institutional Change in National Parliaments" *Journal of Common Market Studies* 39(3): 405-422, 2001.

Dinan, Desmond "Ever Closer Union: An Introduction to European Integration", Third Edition. Lynne Rienner Publishers Inc. Boulder, CO. 2005.

Dinçer, Meral. “Çevre Gönüllü Kuruluşları”, published by Türkiye Çevre Vakfı, Ankara, 1996.

Egeli, Gülün. *Avrupa Birliği ve Türkiye’de Çevre Politikaları*, Ankara, Türkiye Çevre Vakfı Pub., 1996.

European Commission Environment Directorate General (ECEDG) (2006). *EU Environment Related Indicators 2006: Measuring Environmental Progress in Europe*. Printed in Belgium.

Environment Foundation of Turkey, “Avrupa Birliği’nde ve Türkiye’de Çevre Mevzuatı”, Environment Foundation of Turkey pub., Ankara, 2001.

Erkan, Canan. “Çevre Politikalarına Entegre Yaklaşım” paper presented in 2. National Economics Conference, İzmir, Turkey, February 20 – 22, 2008.

Ertürk, Hasan. “Çevre Bilimlerine Giriş”, Bursa Uludag Üniversitesi Güçlendirme Vakfı Publications, Bursa, 1996.

Falkner, Gerda and Simone Leiber. ‘Europeanization of social partnership in smaller European democracies.’ *European Journal of Industrial Relations* 10, (3): 245-266, 2004.

Falkner, Gerda. ‘The Europeanization of Austria: Misfit, adaptation, and controversies.’ *European Integration Online Papers* 5, (13), 2001.

Fayazmanesh, Sasan & Marc R. Tool, (eds.) *Institutionalist Theory and Applications: Essays in Honor of Paul Dale Bush*, Cheltenham: Edward Elgar, 1998.

Featherstone, Kevin and Claudio M. Radaelli. *The politics of Europeanization*. Oxford: Oxford University Press, 2003.

Featherstone, Kevin. “Introduction: In the name of Europe”. In *The politics of Europeanization.*, eds. Kevin Featherstone, Claudio M. Radaelli. Oxford: Oxford University Pres, pp. 3 – 27, 2003.

Fennell, Rosemary. *The common agricultural policy: Continuity and change*. Oxford: Oxford University Press, 1997.

Finnemore, Martha and Kathryn Sikkink. "International Norm Dynamics and Political Change" *International Organization* 52(4), pp. 887 -917, 1998.

Finnemore, Martha. "Norms, Culture and World Politics: Insights from Sociology's Institutionalism," *International Organization* 50(2), pp. 325 – 347, 1996.

Gains, Francesca, Peter C. John, and Gerry Stoker. "Path Dependency and The Reform of English Local Government" *Public Administration* 83(1), pp. 25 -45, 2005.

Gazibo, Mamoudou. "New Institutionalism and the Crisis of Transitology" In Andre Lecours (Ed.) *New Institutionalism: Theory and Analysis*. Toronto: University of Toronto, 2005.

Gehring, Thomas. "Integrating Integration Theory: Neo-functionalism and International Regimes" *Global Society* 10, (3), pp. 225 -252, 1996.

Goetz, Klaus H. 'European integration and national executives: A cause in search of an effect?' *West European Politics* 23, (4), pp. 211 – 231, 2000.

Gorges, Michael. J. "Blind Valley, New Institutional Explanations for Institutional Change: A Note of Caution," *Politics* 21(2), pp. 137 – 145, 2001.

Goulder, Lawrence H. and Ian W. H. Parry, "Instrument Choice in Environmental Policy", *Review of Environmental Economics and Policy* vol. 2, no. 2, pp. 152 -174, 2008.

Gourevitch, Peter. 'The second image reversed: The international sources of domestic politics.' *International Organization* 32, (4) (Autumn), pp. 881-912, 1978.

Görmez, Kemal. *Çevre Sorunları ve Türkiye*, Gazi Kitabevi, Ankara, 1997.

Görmez, Kemal. *Türkiye'de Çevre Politikaları*, Ankara: Gazi Büro, 1991.

Greener, Ian. "The Potential of Path Dependence in Political Studies" *Politics* 25(1): 62-72, 2005.

Haas, Ernst B. "Introduction: Institutionalism or Constructivism?" In Ernst B Haas. *The Uniting of Europe: Political, Social and Economic Forces 1950-1957*. Notre Dame: University of Notre Dame Pres, pp. XIII – LVI, 2004.

Haas, Ernst B. *The uniting of Europe; political, social, and economic forces, 1950-1957*, Notre Dame: University of Notre Dame Pres, 2004.

Hall, Peter A. and Rosemary C. R. Taylor. "Political Science and the Three New Institutionalisms" *Political Studies* 44, pp. 936-957, 1996.

Hallstrom, Lars K. 'Eurocratising Enlargement? EU Elites and NGO Participation in European Environmental Policy' *Environmental Politics* Vol. 13, No. 1, pp. 175 -195, 2004.

Harmsen, Robert. "Europeanization and Governance: A new Institutional Perspective", in *Yearbook of European Studies 14: Europeanization, Institutions, Identities and Citizenship*, pp. 51 – 81, 2000.

Harmsen, Robert. 'The Europeanization of National Administrations: A Comparative Study of France and the Netherlands Governance.' *An International Journal of Policy and Administration* Vol. 12, No. 1, pp. 81 – 113, 1999.

Hartman, Barbara. 'Subsidiarity in EU Environmental Policy' *Problems of Sustainable Development*, Vol. 4, No. 1, pp. 93 -98, 2009.

Harty, Siobhan. "Theorizing Institutional Change" In Andre Lecours (Ed.) *New Institutionalism: Theory and Analysis*. Toronto: University of Toronto, pp. 51 – 79, 2005.

Haverland, Markus. 'The Impact of European Union on Environmental Policies'. In *The Politics of Europeanization*, eds., K. Featherstone and C. Radaelli, 203-225. Oxford: Oxford University Press, pp. 203 -225, 2003.

Hay, Colin and Daniel Wincott. "Structure, Agency and Historical Institutionalism", *Political Studies* XLVI, pp. 951- 957, 1998.

Helmke, Getchen and Steven Levitsky. 'Informal Institutions and Comparative Politics: A Research Agenda'. *Perspectives on Politics* 2(4), pp. 725 -740, 2004.

Héritier, Adrienne. "Differential Europe: National administrative responses to community policy." In *Transforming Europe : Europeanization and domestic change.*, eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y.: Cornell University Press, pp. 44 – 60, 2001.

Héritier, Adrienne. "*Policy-making and diversity in Europe: Escaping Deadlock.*", Cambridge: Cambridge University Press, 1999.

Hey, C., Janicke, M. and Jörgens, H. 'Environmental Governance in the European Union' Paper prepared for the Second ECPR Conference, Marburg, September 18th – 21st, 2003.

Hix, Simon and Klaus H. Goetz. "Introduction: European integration and national political systems" *West European Politics* 23, (4), pp. 1 – 26, 2000.

Hix, Simon 'The Study of the European Community: The Challenge to Comparative Politics' *West European Politics* 17 (1), pp. 1 – 30, 1994.

Holsti, Kalevi J. *Taming the Sovereigns: Institutional Change in International Politics.* Cambridge: Cambridge University Press, 2004.

Hooghe, Liesbet and Gary Marks. *Multi-level governance and European integration.* Lanham, MD: Rowman & Littlefield Publishers, 2001.

Howlett, Michael. 'Managing the "Hollow State": Procedural Policy Instruments and Modern Governance'. *Canadian Public Administration* 34 (4), pp. 412 – 431, 2000.

Immergut, Ellen M. 'The theoretical core of the new institutionalism' *Politics & Society* 26 (1), 1998.

İzci, Rana "The Impact of the European Union on Environmental Policy" in Fikret Adaman and Murat Arsel (eds) *Environmentalism in Turkey: Between Democracy and Development?* Aldershot, UK: Ashgate, pp. 87 – 100, 2005

Jachtenfuchs, Markus and Beate Kohler-Koch. (eds) *European Integration* Opladen: Leske&Budrich, 1996.

Jordan, Andrew and Duncan Liefferink. *The Europeanization of National Environmental Policy: A Comparative Analysis*. London: Routledge, 2004.

Jordan, Andrew. *Environmental Policy in the European Union*. London: Earthscan Publications, 2002.

Keohane, Robert O. and Stanley Hoffmann. *The new European Community: Decisionmaking and institutional change*. Boulder, Colo.: Westview Pres, 1991.

Keleş, Ruşen and Can Hamamcı. *Çevre Politikası*, İmge Yayınevi, Ankara, 2005.

Knill, Christoph. *The Europeanization of national administrations: Patterns of institutional change and persistence*. New York: Cambridge University Press, 2001.

Knill, Cristoph & Dirk Lehmkuhl, 'The National Impact of European Union Regulatory Policy: Three Europeanization Mechanisms'. *European Journal of Political Research* Vol. 41, pp. 255 – 280, 2002.

Knill, Christoph and Dirk Lehmkuhl. "How Europe Matters, Different Mechanisms of Europeanization", *Working Paper European Integration Online Papers (EIoP)* 3:7, 1999.

Knill, Cristoph & Andrea Lenschow. "Coercion, Competition and Communication: Different Approaches of European Governance and Their Impact on National Institutions" *Journal of Common Market Studies* Vol. 43, No. 3, pp. 583 – 606, 2005.

Knill, Cristoph and Andrea Lenschow, *'Revolutionary or marginal changes in Europe? Rearranging the literature on institutional change to tackle the question of scope'*, 2001.

Knill, Cristoph & Duncan Liefferink. *Environmental Politics in the European Union*. Manchester & New York: Manchester University Press, 2007.

Kurzer, Paulette. *Markets and moral regulation: Cultural change in the European Union*. Cambridge England: Cambridge University Press, 2001.

Lecours, Andre. "New Institutionalism." In Andre Lecours (Ed.) *New Institutionalism: Theory and Practice*. Toronto: University of Toronto Press, 3- 27, 2005.

Lewis, Bernard. *The Emergence of Modern Turkey*, Oxford University Pres, New York, 2002.

Liefferink, Duncan and Andrew Jordan. "An "Ever Closer Union" of National Policy? The Convergence of National Environment Policy in the European Union in European Environment", *The Journal of European Environmental Policy* 15 (2), pp. 102 -113, 2005.

Lodge, Martin. 'Isomorphism of national policies? The 'Europeanization' of German competition and public procurement law.' *West European Politics* 23, (1), 89 – 107, 2000.

Lowndes, Vivien. "Varieties of New Institutionalism: A Critical Appraisal" *Public Administration* 74, pp. 181–197, 1996.

Mahoney, James. "Path-Dependent Explanations of Regime Change: Central America in Comparative Perspective" *Studies in Comparative International Development* 36(1), pp. 111-141, 2001.

Mahoney, James. "Path Dependence in Historical Sociology" *Theory and Society* 29, pp. 507-548, 2000.

March, James G. & Johan P. Olsen, 'The Logic of Appropriateness' *ARENA Working Paper*, No. 4/9, 2004.

March, James G. and Johan P. Olsen. "The Institutional Dynamics of International Political Orders," *International Organization* 52(4), pp. 943 -969, 1998.

March, James G. and Johan P. Olsen. *Rediscovering Institutions*. New York: Free Press, 1989.

March, James G. and Johan P. Olsen. "The New Institutionalism: Organizational Factors in Political Life," *American Political Science Review* 78(3), pp. 734-749, 1984.

Marks, Gary and Marco R. Steenbergen. *European integration and political conflict*. Cambridge: Cambridge University Press, 2004.

McCormick, John. *The European Union: Politics and policies*. 3rd ed. Boulder, Colo.: Westview Pres, 2004.

McCormick, John. *Environmental policy in the European Union*. Houndmills, Basingstoke, Hampshire: Palgrave, 2001.

Meadwell, Hudson. "Institutions and Political Rationality" In Andre Lecours (Ed.) *New Institutionalism: Theory and Analysis*. Toronto: University of Toronto, pp. 80 -97, 2005.

Meriç, Teoman. "Su Kaynakları Yönetimi ve Türkiye", *Jeoloji Mühendisleri Dergisi*, Vol. 28, No. 1, pp. 27 – 38, 2004.

Mitrany, David. *A working peace system; an argument for the functional development of international organization*, London: The Royal Institute of International Affairs, 1943.

Moe, Terry M. "Power and Political Institutions", *Perspectives on Politics* 3(2), pp. 215 -233, 2005.

Moravcsik, Andrew. *The choice for Europe: Social purpose and state power from Messina to Maastricht*. Ithaca, N.Y.: Cornell University Press, 1998.

Moravcsik, Andrew. *Centralization or fragmentation?: Europe facing the challenges of deepening, diversity, and democracy*. New York: Council on Foreign Relations Pres, 1998.

Müftüler-Baç, Meltem. "Turkey's Political Reforms and the Impact of the EU" *South European Society and Politics* 10(1), pp. 17-31, 2005.

Nielsen, Klaus. "Institutionalist Approaches in the Social Sciences: Typology, Dialogue, and Future Challenges." *Journal of Economic Issues* 35(2), 2001.

Nigel Haigh, ed. *'Manual of Environmental Policy'* Release 24. Oxford: IEEP/Elsevier, 2003.

North, Douglas C. *Institutions and Institutional Change and Economic Performance*. New York: Cambridge University Press, 1993.

Nugent, Neill. *The government and politics of the European Union*. 6th ed. Durham: Duke University Press, 2006.

OECD; "Environmental Performance Review: Turkey", Paris, 2008

OECD; "Environmental Policies in Turkey", Paris, 1992.

OECD, *Reducing Environmental Pollution: Looking Back, Thinking Ahead*, Paris, 1994.

Okumuş, Kerem. *Turkey's Environment: A Review and Evaluation of Turkey's Environment and its Stakeholders*, Published by: The Regional Environmental Center for Central and Eastern Europe, Szentendre, Hungary, 2002.

Olsen, Johan P. "The Many Faces of Europeanization", *Journal of Common Market Studies* 40(5), pp. 921-52, 2002.

Olsen, Johan P. "Garbage Cans, New Institutionalism, and the Study of Politics." *American Political Science Review* 95(1), pp. 191-198, 2001

Orhan, Gökhan "European Environmental Policy at the Intersection of Institutions and Ideas." *In European Discourses on Environmental Policy*. Marcel Wissenburg, Gökhan Orhan, and Ute Collier, eds. Ashgate Publishing Ltd. UK, pp. 35-58, 1999

Önen , Mustafa. "Çevre Mevzuatı ve Kamu Yöneticileri: Bir Araştırmanın Bulguları", *Amme İdaresi Dergisi*, Vol. 28, No. 4, 121 -152, 1995

Öniş, Ziya. "Domestic Politics, International Norms and Challenges to the State: Turkey-EU Relations in the post-Helsinki Era", *Turkish Studies* 4(1), pp. 9-34, 2003.

Özdemir, İbrahim. "The Development of Environmental Consciousness in Modern Turkey" Richard Foltz (ed.), *Environmentalism in the Muslim World*, Boston: MIT Press, 2003.

Özveren, Eyüp, Emre Özçelik and Selin Efşan Nas, "Environmental Policy in Turkey: An Institutional Critique", paper presented in Association for Heterodox Economics (AHE) Conference, Cambridge, UK, July 4–6, 2008.

Pedersen, Lene Holm. 'The Europeanization of CO2 Regulation in the Scandinavian Countries.' *Policy and Society* 24 (2), pp. 74 -99, 2005.

Peters, B. Guy, Jon Pierre, and Desmond S. King. "The Politics of Path Dependency: Political Conflict in Historical Institutionalism" *The Journal of Politics* 67(4), pp. 1275-1300, 2005.

Peters, Guy. "*Institutional theory in political science: the new institutionalism.*" London ; New York : Pinter, 1999.

Pierson, Paul. "The Limits of Design: Explaining Institutional Origins and Change", *Governance: An International Journal of Policy and Administration* 13(4), pp. 475-499, 2001.

Pierson, Paul. "Increasing Returns, Path Dependence, and the Study of Politics" *The American Political Science Review* 94(2), pp. 251 -267, 2000

Porter, Martin, Phillip Alan Butt, "The Role of Interest Groups in EU Environmental Policy Formulation: A Case Study of the Draft Packaging Directive", *European Environment*, vol.3, pp. 16 – 20, 1993.

Putnam, Robert D. 'Diplomacy and domestic politics: The logic of two-level games.' *International Organization* 42, (3) (Summer), pp. 427-60, 1988.

Radaelli, Claudio M. 'Europeanization: A problem or Solution?' *European Integration Online Papers* 8, (16), 2004.

Risse-Kappen, Thomas, Maria Green Cowles, and James A. Caporaso. "Europeanization and domestic change: Introduction" In *Transforming Europe : Europeanization and domestic change.*, eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y.: Cornell University Press, pp. 1 – 21, 2001.

Risse-Kappen, Thomas. "A European identity? Europeanization and the evolution of nation-state identities" In *Transforming Europe: Europeanization and domestic change.*, eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y.: Cornell University Press, pp. 198 – 217, 2001.

Sbragia, Alberta M. "Italy pays for Europe: Political leadership, political choice, and institutional adaptation." In *Transforming Europe : Europeanization and domestic change.*, eds. Maria Green Cowles, James A. Caporaso and Thomas Risse-Kappen. Ithaca, N.Y.: Cornell University Press, pp. 79 – 97, 2001.

Sbragia, Alberta M. 'Environmental Policy'. In *Policy-Making in the European Union*, eds., H. Wallace and W. Wallace, 293-316. Oxford: Oxford University Press, pp. 293 – 298, 2000

Sbragia, Alberta & Chad Damro. "The Changing role of the European Union in International Environmental Politics: Institution Building and the Politics of Climate Change, Environment and Planning", *Government and Policy*, vol.17, pp. 53 – 68, 1999.

Shepsle, Kenneth. "A Comment on Institutional Change" *Journal of Theoretical Politics* 13(3), pp. 321 – 325, 2001.

Schmidt, Vivien Ann. *Democracy in Europe: The EU and National Politics*. Oxford: Oxford University Press, 2006.

Schimmelfennig, Frank. *The EU, NATO and the integration of Europe: Rules and rhetoric*. New York: Cambridge University Press, 2003.

Schimmelfennig, Frank and Ulrich Sedelmeier. *The Europeanization of central and eastern Europe*. Ithaca, NY: Cornell University Press, 2005.

Stacey, Jeffrey and Berthold Rittberger. "Dynamics of formal and informal institutional change in the EU", *Journal of European Public Policy* 10(6), 2003.

Steinmo, Sven, Kathleen Ann Thelen & Frank Longstreth, (eds.) 'Structuring politics : historical institutionalism in comparative analysis,' New York : Cambridge University Press, 1992.

Talu, Nuran. *Avrupa Birliği Uyum Sürecinde Türkiye 'de Çevre Politikaları*, Ankara: TMMOB Çevre Mühendisleri Odası Pub., 2006.

Tews, Kerstin, Per-Olof Busch and Helge Jörgens 'The Diffusion of New Environmental Policy Instruments'. Paper prepared for the ECPR, Grenoble Joint Sessions of Workshops Workshop 1: New Environmental Policy Instruments, 2001

Thelen, Kathleen and Sven Steinmo. "Historical institutionalism in comparative politics" In Sven Steinmo, Kathleen Thelen and Frank Longstreth (Eds.) *Structuring Politics: Historical Institutionalism in Comparative Perspective*. Cambridge: Cambridge University Press, 1-33, 1992.

Tiersky, Ronald. *Europe today. national politics, European integration, and European security*. 2nd ed. Lanham: Rowman & Littlefield, 2004.

Tsebelis, George. *Nested games: Rational choice in comparative politics*. Berkeley: University of California Press, 1990.

"Turkey Approaching the Kyoto Protocol?" *Joint Implementation Quarterly* July 2007.

Turkish Constitution of 1982, *Part Two* (Fundamental Rights and Duties), *Chapter Three* (Social and Economic Rights and Duties), *Clause 8* (Health, the environment and housing), *Subclause A* (Health services and conservation of the environment), *Article 56*

TUSIAD “Local Government in Turkey: Problems and Solutions (Executive Summary)”
TUSIAD Publication No. T/96.5.198, Istanbul, 1996.

Uğur, Aydın. "STK'lara Eleştiri Merceğiyle Bakılınca", *Sivil Forum* 1996.

United Nations Conference on Environment & Development Rio de Janeiro, Brazil, 3 to 14 June 1992

Ünlü, Halil. “*Yerel Yönetim ve Çevre*”, IULAEMME Publications, İstanbul, 1995.

Ural, Engin. *Muhtelif Anayasalarda Çevre Hükümleri*, Ankara, 1980.

Vogler, John and Hannes Stephan. 'The European Union in global environmental governance.' *International Environmental Agreements* 7, pp. 389 -413, 2007.

Vogler, John. “The European contribution to global environmental governance.” *International Affairs*, 81(4), pp. 835 – 850, 2005.

Weibust, Inger. ‘A (Slow) Burning Issue: Convergence in National Regulation of Dioxins from Incineration.’ *Policy and Society* 24 (2): 46-73, 2005.

Wendt, Alexander. *Social Theory of International Politics*. New York: Cambridge University Press, 1999.

Weyland, Kurt. “Limitations of rational-choice institutionalism for the study of Latin American Politics.” *Studies in Comparative International Development* 37(1), pp. 57 – 85, 2002.

World Bank; World Development Indicators, Washington, DC, 1997.

Yaşamış, Firuz Demir. “*Turkish Environmental Law: An Overview of Legal Principles*” in memoriam of Dr. Faruk Erem. Türkiye Barolar Birliği. Ankara. 1999.

Zito, Anthony R. “*Creating Environmental Policy in the European Union*”, Palgrave, New York, 2000.

Web Sources:

<http://ec.europa.eu/environment/newprg/review.htm> Accessed on 27.05.2010

<http://ec.europa.eu/environment/actionpr.htm> Accessed on 27.05.2010

<http://www.euractiv.com/en/energy/energy-climate-change-integrated-eu-policy/article-160957> Accessed on 27.05.2010

www.ogm.gov.tr/english/background.htm Accessed on 27.05.2010

www.meteor.gov.tr/de-DE/about.aspx Accessed on 27.05.2010

www.ockkb.gov.tr/EN/Icerik.ASP?ID=119 Accessed on 27.05.2010

www.dsi.gov.tr/english/about/goreve.htm Accessed on 27.05.2010

www.cekud.org/site/page.asp?dsy_id=1328 Accessed on 27.05.2010

www.cevre.org.tr Accessed on 27.05.2010

www.rec.org/REC/Programs/ExtensionToTurkey/TurkeysEnvironment.pdf Accessed on 27.05.2010

www.dhkd.org Accessed on 27.05.2010

www.english.tema.org.tr Accessed on 27.05.2010

