

THE EUROPEAN UNION WATER FRAMEWORK DIRECTIVE AND
TURKEY'S WATER MANAGEMENT POLICY:
AN ANALYSIS

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF SOCIAL SCIENCES
OF
MIDDLE EAST TECHNICAL UNIVERSITY

BY

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY
IN
THE DEPARTMENT OF INTERNATIONAL RELATIONS

SEPTEMBER 2011

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ABSTRACT

THE EUROPEAN UNION WATER FRAMEWORK DIRECTIVE AND TURKEY'S WATER MANAGEMENT POLICY: AN ANALYSIS

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September 2011, 425 Pages

This thesis focuses on the relationship with the EU Water Framework Directive (WFD) and Turkey's water management policy. The aim of the thesis is to understand and analyze impacts of Water Framework Directive on different dimensions of Turkey's water management policy. This thesis argues that legal discourses, organizations and policy networks prevailing in Turkey's water management policy are more flexible in terms of change, whereas institutional arrangements, which constitute the substantive part of the necessary changes for the implementation of the WFD, are likely to change more subtly and gradually. Not only the embedded flexibility in the WFD, but also the established traditions and continuities in Turkey's water management policy contribute to the explanation of this argument.

Key Words: European Union, Water Management, Water Framework Directive, Turkey

ÖZ

AVRUPA BİRLİĞİ SU ÇERÇEVE DİREKTİFİ VE TÜRKİYE SU YÖNETİMİ POLİTİKASI: BİR ANALİZ

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Doktora, Uluslararası İlişkiler Bölümü

Tez Danışmanı: Doç. Dr. Şule Güneş

Eylül 2011, 425 Sayfa

Bu tez, AB Su Çerçeve Direktifi ve Türkiye'nin Su Yönetimi Politikası arasındaki ilişki üzerine odaklanmıştır. Tezin amacı, Su Çerçeve Direktifi'nin, Türkiye su yönetimi politikasının farklı boyutları üzerindeki etkisini anlamak ve irdelemektir. Bu tez, yasal söylemler, kurumlar ve politika ağlarının değişim bağlamında daha esnek olduğunu, buna karşılık Su Çerçeve Direktifi'nin esasına ilişkin değişimleri ifade eden kurumsal uygulamaların ise daha yavaş ve tedrici değişeceğini savunmaktadır. Gerek SÇD'nin kendisindeki esnekliklerin, gerekse Türkiye su yönetimi politikasında kurulu geleneklerin ve devamlılıkların bu açıklamaya katkıda bulunmaktadır.

Anahtar Kelimeler: Avrupa Birliği, Su Yönetimi, Su Çerçeve Direktifi, Türkiye

To My Parents,
and to My Love...

ACKNOWLEDGEMENTS

This thesis would not have been possible without the essential and gracious support of many individuals.

First and foremost, I owe a special debt to my supervisor Assoc. Prof. Şule Güneş, who provided me with an endless support and encouragement.

I am heartily thankful to my co-advisor Prof. Dr. Ayşegül Kibaroğlu, whose encouragement, guidance and support from the initial to the final level enabled me to develop an understanding of the subject. Her immense expertise, unsurpassed patience and boundless understanding added considerably to my thesis.

I specially acknowledge infinite help and encouragement of Prof. Dr. Hüseyin Bağcı.

I am indebted to Prof. Dr. Aykut Namık Çoban for his patience and invaluable comments.

I would like to show my gratitude to Assoc. Prof. Dr. Sevilay Kahraman for her help and guidance.

Special thanks to Oben Kuyucu, for his extraordinary support during the challenging processes of preparation of thesis manuscript.

I am heavily indebted to Prof. Dr. Doğan Altınbilek, who supported me during my research.

It is an honor for me to thank Prof. Dr. Mark Lubell, who enabled me to learn network analysis.

I am grateful to Sadettin Malkaralı, who helped me during my visit to Edirne. I am also thankful to Nedim Yeşil, Ayla Efeođlu from DSİ and Nermin Çiçek from Ministry of Environment and Forestry for their contributions.

I acknowledge the support of all of my colleagues at METU.

I offer my regards and blessings to all of those who supported me in any respect during the completion of the project.

And finally, never enough thanks to one who doesn't want to be named but she knows who she is and so do I.

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LIST OF ABBREVIATIONS

Al – Aluminum

ASKİ – Ankara Su ve Kanalizasyon İdaresi

BOI – Biochemical oxygen demand (Turkish acronym)

BOT – Build-Operate-Transfer

Ca – Calcium

CIS – Common Implementation Strategy

CO₂ – Carbondioxide

COREPER – Committe of Permanent Representatives (French acronym)

DEFRA – Department for Environment, Food and Rural Affairs

DG – Directorate General

DSD – Dangerous Substances Directive

DSİ – State Hydraulic Works (Turkish acronym)

EAP – Environmental Action Program

EC – European Community

ECJ – European Court of Justice

EEA – European Environment Agency

EEB – European Environmental Bureau

EEC – European Economic Community

EIA – Environmental Impact Assessment

EİEİ – Electrical Power Resources Survey and Development Administration
(Turkish acronym)

ELV – Emission Limit Values

EMVIS – Euro-Mediterranean Information System on Know-how in the Water Sector

ENVEST – Envest Planners Consortium

EP – European Parliament

EPASA – Environmental Protection Agency for Special Areas

EQS – Environmental Quality Standards

EU – European Union

FAO – Food and Agriculture Organization

FS – Fecal Streptococci

GAP – Southeastern Anatolia Project (Turkish acronym)

GAPSEL – A Project focusing on Flood issues in GAP (Southeastern Anatolia) region

GDPC – General Directorate of Protection and Control

GDRS – General Directorate of Rural Services

GDW – General Directorate for Waters

GIS – Geographical Information System

GWP – Global Water Partnership

HEP – Hydroelectrical Plant

IA– Irrigation Association

ID – Irrigation District

IMO – Irrigation Management Organization

IR – International Relations

IRBM – Integrated River Basin Management

IWRM – Integrated Water Resources Management

İSKİ – İstanbul Water and Sewerage Authority (Turkish acronym)

MANTRA-East – Integrated Strategies for the Management of Transboundary Waters on the Eastern European Ringe

MATRA – Dutch supported “Matra Program”, derives from the Dutch for social transformation, “maatschappelijke transformatie”.

MENR – Ministry of Natural Resources

MEP – Member of Parliament

MFA – Ministry of Foreign Affairs

Mg – Magnesium

MoEF – Ministry of Environment and Forestry

MoH – Ministry of Health

MPWS – Ministry of Public Works and Settlement

MS – Mediterranean Syndrome

NGO – Non-Governmental Organization

NTU – Nephelometric Turbidity Units

O&M – Operation and Maintenance

OECD – Organization for Economic Cooperation and Development

QMV – Qualified Majority Voting

RBD – River Basin District

RBMP – River Basin Management Plan

RBPAP – River Basin Protection Action Plan

SEA – Single European Act

SPA – Special Provincial Administration

SPO – State Planning Organization

TEMA –The Turkish Foundation for Combating Soil Erosion, for Reforestation, and Protection of Natural Habitats (Turkish acronym)

TEU – Treaty on European Union

TGNA – Turkish Grand National Assembly

TMMOB – Union of Chambers of Turkish Architects and Engineers (Turkish acronym)

TOPRAK-İSKAN – General Directorate of Soil and Settlement (Turkish acronym)

TOPRAKSU – General Directorate of Soil and Water (Turkish acronym)

TURMEPA – Association for Clean Seas

TUSKOOP – Union of Irrigation Cooperatives in Turkey

UCINET – Social Network Analysis Program

UK – United Kingdom

UNCED – United Nations Conference on Environment and Development

UNEP – United Nations Environment Program

US – United States

USİAD – National Businessmen and Industrialists Association (Turkish acronym)

UWWT – Urban Waste Water Treatment

UWWTD – Urban Waste Water Treatment Directive

WATECO – Working Group on Water and Economics

WFD– Water Framework Directive

WSSD – World Summit on Sustainable Development

WWC – World Water Council

WWF – World Wildlife Fund

YAS – Groundwater Irrigations (Turkish acronym)

YSE – General Directorate of Road-Water-Electricity (Turkish acronym)

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CHAPTER 1

Introduction

1.1. Introduction

Water constitutes the basic source of life and its availability in adequate quantities and quality is necessary for people, economic production and for the health of ecosystems. Without water, there would be no life on earth. Water is a substance with no substitute. In this respect, water is life. Water is also intimately linked to sectors such as health, agriculture, energy, and biodiversity which are essential for sustainable economic growth.

With regards to water politics, numerous concepts are utilized, depending on the context, or issue. Among these, especially two widely-used concepts come forward which needs to be defined for the purposes of this study. In particular, the “water management” and “water resources development” (or “water development”) are these two concepts, which need to be clarified at first. The concept of “water management” is broader, in scope. Water management involves all the activities of planning, developing, distributing and managing the optimum use of limited water resources. In other words, water management involves not only the political and technical decisions taken for water resources development, but also the rules and procedures for water rights and water allocations, the issues of protection of environment, economic institutions like water tariffs, principles for land-use, participation of public to decision-making procedures etc. Therefore, the concept of “water management” denotes the setting where water is managed through rules, norms, decisions, institutions and policies. “Water resources development”, on the other hand, is a concept inclusive of structural elements such as the works of infrastructure (e.g. dams, water canals, water storage facilities, flood control structures, water treatment plants), as well as non-structural elements such as

efficient use and allocation of available water resources.¹ The main aims of water resources development are to benefit from the available waters and to prevent the damages that waters cause.

Water management is a multifaceted phenomenon with various ramifications for many aspects of economic and social life. In this respect it is currently understood that, for a successful water management, a number of targets have to be accomplished.² However, modern understanding of water management as an encompassing phenomenon on water issues did not emerge instantly. Despite the fact that water and its management has always been a focus of humans throughout the history, it was only in the last two centuries that the characteristics of and differences in various water management policies has begun to be discussed.

The approaches dealing with the question how the water is managed vary greatly across time (throughout history) and space (among countries).³ These differences in styles of water management are categorized in an analytical framework of paradigm shifts⁴. According to this view, each water management paradigm is characterized

¹ Peter H. Gleick, "The Changing Water Paradigm: A Look at Twenty-first Century Water Resources Development", in *Water International*, Vol. 25, No. 1, March 2000, p. 132.

² For instance, Eroğlu provides a summary of these targets: "Determination of existing and future qualitative and quantitative characteristics of surface and groundwater resources, evaluation of supply possibilities; determination, planning and arrangement of community water demands; formation of water balances, collection of factors that will provide continuity of these balances, and development of a long term strategy for rational use of water resources; monitoring of water resources in order to protect them from pollution and exhaustion; planning water resources systems; modeling of management; designation of processes in water systems and operational conditions Increase of assurance of water from quality and quantity point of views; make it possible the multipurpose utilization of water resources, determination of priorities of these purposes and reevaluation of allocations; improvement of rational water use; provide sustainability of natural potential of water resources and protect them; provide effective utilization of technical elements (e.g. reservoirs, treatment plants etc.) in order to protect communities from adverse effect of water resources; and benefit from managerial elements, economic instruments (e.g. pricing, penalties etc.), laws and by-laws." See Veysel Eroğlu, "Water Resources Management in Turkey", paper presented at the *International Congress on River Basin Management, Conference Proceedings, 2007*, pp.323-324.

³ Peter H. Gleick, *op. cit.*, p. 127.

⁴ J. Anthony Allan, "IWRM: The Sanctioned New Discourse?", in Peter Mollinga, Ajaya Dixit and Kusum Athukorala, *Integrated Water Resources Management: Global Theory, Emerging Practice and Local Needs*, Sage Publications, New Delhi, 2006, pp. 38-64.

with different perceived roles of water in society, economy and environment, and resultant practices.

Prior to the 19th century, water has often been utilized “from the nearest source”. In the context of industrial revolution and its aftermath, the technological innovations and increasing financial capabilities made formerly distant waters economically available, and technically feasible for utilization. Thus, the modernist thinking of “water can be tamed” was enabled by the technological breakthroughs in engineering, which made it possible to build huge dams and storage facilities on big rivers.

By late 1970s, developed countries of the North, have become able to enter in a phase of “reflexive modernity”, in which agents (individuals) are able to *reflect* on social rules and resources in settings where flexible networks could have emerged and loyalties to structures and institutions are questioned. In 1970s, it has become apparent that the “industrial modernity” had created some negative pressures on the environmental resources, and that it “damaged rather than controlled nature”. As demonstrated by Beck’s “risk society theory”, people in the North began to stop trusting in progress, after symbolic shocks like Chernobyl. People in the North have become anxious that “science and industry could neither control nature nor be trusted to understand its potential power.”⁵ Within the phase of reflexive modernity, through which the people’s perceptions about nature are questioned, the water management paradigm of “hydraulic mission” was superseded by three subsequent water management paradigms. The third paradigm, which is inspired by the “environmental awareness of the green movement”, included a shift in water allocations in semi-arid industrialized regions. For these regions, this meant a reduction in the water allocated to agriculture, and an increase in the water allocations to environment. The fourth paradigm is associated with the “economic value of water”. The “water” has increasingly begun to be understood as a scarce economic input. Understanding water as an economic good has gained prominence

⁵*Ibid.*, p. 45.

since Dublin Conference, 1992.⁶ This economic inspiration which underlined the fourth paradigm was tried to be exported to the South by international agencies such as World Bank; by global water fora such as the Hague in March 2000, and Kyoto in March 2003; and by associated institutions such as *United Nations Conference on Environment and Development* (UNCED), the World Water Council (WWC) and the Global Water Partnership (GWP).⁷ In this framework, the utilization of economic institutions such as water pricing, water demand management; and related instruments such as tradable water rights, subsidies, grants, soft loans, product charges, tax differentiation, tax allowances, penalties⁸ are promoted in the Global South.

However, by the late 20th century, developing countries have still mostly adhered to the understanding of so-called “hydraulic mission”. One of the reasons why developing countries were not able to follow suit could be the fact that many of the countries of the so-called South are still “traditional societies”, as Beck called.⁹ According to this understanding, in traditional societies individualism cannot deepen its hold in imagination of people. This results in continuation of loyalty to structures and institutions¹⁰, as well as in the continuing legitimacy of the hydraulic mission. Thus, a re-appraisal of the environmental negative externalities of the industrial development did not easily develop. Within this respect, for instance, while in the past decades, environmental concerns have acquired a strong political voice in developed countries, attention to environmental conservation in developing countries

⁶ One of the four Dublin Principles was “Water has an economic value and should be recognized as an economic good, taking into account affordability and equity criteria” (The Dublin Statement and Report of the Conference. International Conference on Water and the Environment, Development Issues for the 21st century, 26–31 January 1992, Dublin).

⁷ J. Anthony Allan, *op. cit.*, p. 48.

⁸ Hubert Savenije and Pieter van der Zaag, “Water as an Economic Good and Demand Management Paradigms with Pitfalls”, in *Water International*, Vol. 27, No. 1, March 2002, p. 100.

⁹ Ulrich Beck, *World Risk Society*, Polity Press, Cambridge, 1999, p. 115.

¹⁰ Alan Roxburgh, “A Summary of Ulrich Beck - Risk Society: Towards a New Modernity”, online paper, available at <http://nextreformation.com/wp-admin/resources/risk-society.pdf>, accessed on 04.02.2009.

is perceived as “anti-poor”¹¹. Another reason for the adherence of the South to the hydraulic mission lies in the fact that most of these countries, unlike industrialized countries in the North, were unable to exploit the nature in full. Therefore, these countries were, so far, unable to complete their water resources development projects. This, in turn contributes to the continued salience of the issue of “water resources development” in Southern countries.

In this framework, water management paradigm in developed countries of Europe and North America has begun to differ from the one being implemented in developing countries of the South. Besides, the trajectory of the shifts in water management paradigms, as Allan explains, basically fits to the findings of modernity studies in the sense that shifts in water management paradigms go hand in hand with changes of underpinning ideas in a society concerning linkages between society, politics, culture and economy.¹²

In the second half of the 20th century and particularly in its last quarter, the necessity for reasonable use and protection of freshwater and consideration of the needs of different interest groups became more and more obvious. It was understood that only approx. 0.4% of the world’s water resources is freshwater available for human use and that one third of the world’s population lives in areas where water is scarce or extremely scarce. Moreover, by 2025, that number is expected to grow to two-thirds.¹³ Therefore, the second half of the 20th century witnessed the increasing prominence of concerns over water management issues.

With regard to the water crises summarized above, it was understood in 1980s that these and related water crises can be solved not only by implementing new

¹¹ Peter P. Mollinga, Ruth S. Meinzen-Dick and Douglas J. Merrey, “Politics, Plurality and Problemsheds: A Strategic Approach for Reform of Agricultural Water Resources Management”, *Development Policy Review*, 2007, Vol. 25, No. 6, 699-719, p. 710.

¹² J. Anthony Allan, *op.cit.*, p. 61.

¹³ Peeter Marksoo, “Integrated Water Resources Management and Water Framework Directive: Implementation of Principles of Integrated Water Resources Management in Estonian Water Policy”, online paper available at http://www.veeyhing.ee/lae_fail.php?fail=d0ef31e341a64b8b272a, 2007, p. 5.

technologies but also through changes in water use practices and water resources management. In this sense, primary reasons why water problems afflict developing countries are accepted to be political and institutional failures, not technical ones. In this respect, the Global Water Partnership concluded that “the water crisis is mainly a crisis of governance”.¹⁴ It is accepted that sectoral regulation of water resources management leads to “splintered and uncoordinated” water use and hinders significantly the organization of water protection. The only way to find reasonable solutions to water-related problems in these countries is seen as to implement the principles of integrated water resources management (IWRM).¹⁵

Therefore, by the beginning of the third millennium, water management was begun to be understood with its totality. “Integrated Water Resources Management” (IWRM) is accepted the most recent water management paradigm. This paradigm is associated with such approaches as participation, consultation, and inclusive political institutions to enable the mediation of the conflicting interests of water users and the agencies. The inclusive political process of this paradigm requires that the interests of water users, government, social movements (NGO’s), and private sector are included in the water policy making discourses. IWRM has also become a concept and strategy for stimulating changes in policies in the water sector. It is gradually replacing the traditional understanding and practice of water resources development mainly directed at policy and institutional changes on sub-national, national and international levels.¹⁶

Concomitant to the changing water management paradigms at global scale, the water management policy in the European Union comprised of different stages. While the earlier phases of the European integration adopted parallel but incompatible approaches of “environmental quality standards” and emission limit values”, the

¹⁴ Global Water Partnership (GWP), *Towards Water Security: A Framework for Action*, Stockholm, 2000, pp. 17-23.

¹⁵ Peeter Marksoo, *op.cit.*

¹⁶ Global Water Partnership (GWP), *op. cit.*

resultant unsuccessful water quality protection led to a reappraisal of water management policy at the EU level. In the end, parallel to the increasing global recognition of the IWRM as the most recent water management paradigm, the need for an integrated approach in the EU has been included in European political agenda.

Water management legislation at the level of the EU has started in mid-1970s. Thus, it is relatively a recent experience. Emergence of water management policies has initially waited for an environmental policy to be developed across the EU. In this setting, EU's water management policies emerged out of its environmental policies. One of the main reasons why water is associated with environment lies in the fact that EU countries have long been experiencing the negative externalities of industrial development in their water environment. For instance, pollution of transboundary European rivers, such as Rhine and Danube has become grave concerns for European policy makers. The degradation of water resources is seen as the primary problem regarding water. Given the hydro-climatic conditions of Europe, water quantity¹⁷ did not become a serious problem for most of the continent. Therefore, the matters pertaining to "water quality" had the upper hand in shaping the EU legislation on water. Another reason for prioritization of "water quality" over "water quantity" relates to the internal functioning of the Union. While decisions on water quality legislation could be taken on the basis of Qualified Majority Voting (QMV), legislation on water quantity matters necessitated a unanimous decision.¹⁸ Within this context, a series of legislation in water management has been adopted in the EU framework. By mid 1990s, the need for a more integrated approach for water management policy had become apparent. Therefore, it could be argued that the major ramification of the raising IWRM paradigm on the EU level water policy was appeared as a growing need for an integrated water management approach. In this framework, the European institutions came to the conclusion that the new European Water Policy had to address water management and water protection in a more

¹⁷ Note that here, "water quantity" pertains to "water scarcity".

¹⁸ Article 175 of the Treaty of Maastricht, 1992.

coherent way. The development of a single piece of framework legislation culminated in the adoption of the WFD¹⁹.

WFD constitutes for the first time in the development of European water policy a single piece of framework legislation that aims at co-coordinating environmental objectives and all measures instead of concentrating only on improvements in different water-related sectors separately. Therefore, an ecological and holistic water status assessment approach is introduced as well as river basin planning, a strategy for elimination of pollution by dangerous substances, public information and consultation, and financial instruments.

It is officially argued by the EU that the IWRM paradigm is embraced by the EU, through the enactment of the WFD.²⁰ Proponents of this understanding state that the WFD is in compliance with IWRM principles. According to this view, for instance, the WFD is Europe's way of realizing IWRM, i.e. "IWRM in the North".²¹ As Jaspers argue, the term integration is the key concept of the WFD²², which also is one of the key concepts of the IWRM. The existence of a number of similarities between the IWRM approach and WFD is also recognized.²³ At the rhetorical level, WFD is being exported –by the EU- to places out of Europe as a model for IWRM within the framework of EU Water Initiative.²⁴

¹⁹ 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, OJEC L 327 (22/12/2000), p. 1.

²⁰ See <http://www.europa.eu>, accessed on 15.10. 2010.

²¹ Henrik Larsen, "EU Water Framework Directive as 'IWRM in the North?' ", powerpoint presentation, presented at 4th World Water Forum, Mexico, also available online at <http://www.waterforum.jp>, accessed on 01.02.2011.

²² Frank Jaspers, EU "Water Framework Directive, Introduction in Integrated Water Resources Planning", *Tranining Course- Konya River Basin*, unpublished presentation, 2005.

²³ Henrik Larsen, *op. cit.*

²⁴ *Ibid.*

Although the compatibility between the WFD and IWRM could be evidenced, the argument that there are misfits with the WFD and IWRM are notable as well. For instance, it is evident that the WFD neglects the way how water is used as an input to the economy.²⁵ The WFD also ignores the need for “further water development and balancing of multiple policy goals”.²⁶ As argued by Mollinga, the WFD was preceded by a “quantity-focused” and “agriculture-biased” water management practices within the EU.²⁷ Now, the WFD makes the realization of “environmental objectives” as its main focus, reaching “good status” as its basic aim. In this regard, it prioritizes the resolution of the water quality problem in EU waters. The WFD is said to be concerned with priorities of countries in Northern Europe “where water is abundant and water infrastructure is in place”. In this manner, the WFD represents a paradigmatic shift in the European water management setting, let alone the discussions on the level of compliance it demonstrates with IWRM framework.

To conclude, it could be concluded that even though the WFD is not the IWRM *per se*, it reflects many of the elements of the IWRM, and it is tailored to specific EU priorities. In this context, WFD could be regarded as a step towards the IWRM. Overall, it brings significant novelties to European water management policy as well as to national water management policies across Europe. Whether WFD is compatible with the principles laid out by the IWRM paradigm or not, it will remain for Member States of the Union as a binding legal text with a demanding schedule for implementation. Being a candidate country conducting accession negotiations, WFD will also bring new concepts, instruments and procedures to Turkey’s water management policy.

²⁵ *Ibid.*

²⁶ *Ibid.*

²⁷ Peter Mollinga, “IWRM in South Asia: A concept looking for a constituency”, in Peter Mollinga, Ajaya Dixit and Kusum Athukoral (eds.), *Integrated Water Resources Management: Global Theory, Emerging Practice and Local Needs*, Sage Publications, New Delhi, 2006, pp. 21-37.

Beginning from the date of its establishment, Turkey, as a country with its own political and economic setting, which is characterized by its desire to gain independence from economic reliance upon outside sources for its development, and to deliver sufficient amounts of good quality water to satisfy its people's and economy's needs, adopted a water management paradigm where "water resources development" is prioritized. In this respect, particularly beginning from mid-1950s Turkey experienced a phase of systematic construction of physical water works aiming to benefit from its water resources (drinking water, irrigation, hydroelectricity) as well as to prevent from dangers (such as floods) associated with water. In this regard, the establishment of State Hydraulic Works (Turkish acronym, DSİ), the major organization for water resources development throughout the country, in 1954 could be regarded as the starting point for the systematic works for water resources explorations and constructions.

1950s, thus, marked the start of a new water management framework for Turkey. In this context, beginning from 1950s, Turkey experienced the introduction of "river basin planning" notion²⁸, as the Law No. 6200 encapsulated the organization of the DSİ on the basis of river basins.²⁹ "River basin planning" approach was then elucidated in a document called "Directive for Determination of Project Fundamentals"³⁰, which was published in 1958. The aim of the Directive ("Talimat" in Turkish), contained in the second Article, was expressed as "This Directive is used for analysis of the *basin* and *combined* projects in each stage of the basin works, which are composed of exploration, planning, final planning; analysis of their

²⁸ Note that the notion of "river basin planning" differs from "river basin management". Whereas the former connotes water resources development projects only, the latter, involves not only development of water related infrastructure, but also additional institutions of water management (with regards to basin-wide water uses, water allocations, water pricing, land-use plans, participation of stakeholders etc.)

²⁹ Özden Bilen, *Türkiye'nin Su Gündemi: Su Yönetimi ve AB Su Politikaları*, Ankara, 2009, p. 281.

³⁰ "Nafia Vekaleti" (Ministry of Public Works), Devlet Su İşleri Umum Müdürlüğü, "Proje Esaslarının Tespitine Ait Talimat" (Directive for Determination of Project Fundamentals), Teknik Kitaplar No. 10-2, Ankara, 1958, p. 2.

alternatives; and determination and validation of project fundamentals.”³¹ The introduction of the term “combined project” (“manzume proje” in Turkish) is significant in the sense that it could be read as a summary of the approach in line with the current water management paradigm of “river basin planning”. The definition of the combined project, which is provided in the same Article, verifies this logic: “The combined project is the broad group of measures forming an independent whole with regards to the purpose, planning, construction and operation-maintenance; and encompassing the entire basin, for the development and control of water and related soil resources”³². Therefore, the water resources development on the level of river basins started almost concomitant to the inception of systematic works for water resources development. However, the understanding of river basin planning did not rapidly transform into a more holistic understanding of water management, which is defined through the concept of integrated water resources management (IWRM).

Establishments of General Directorate for Soil and Water (“TOPRAKSU Genel Müdürlüğü” in Turkish) and General Directorate for Agricultural Reform (“Tarım Reformu Genel Müdürlüğü” in Turkish) in 1960s contributed to systematic water resources development activities. While TOPRAKSU (later GDRS) was responsible from small scale water resources development (water resources being less than 500 liters per second) and on-farm development activities (such as drainage, land reclamation, grading etc.), General Directorate for Agricultural Reform became responsible from providing lands to landless farmers in areas designated for agricultural reform. Water resources development activities, under the DSI’s leadership, continued to enjoy being the major priority status throughout 1960s and 1970s and until mid-1980s³³.

³¹ Emphases added.

³² *Ibid.*

³³ For instance, whereas irrigation investments in 1963-67 period comprised approximately 30% of the state budget, it decreased to 10% and less in subsequent planning periods. Similarly, DSI was using approximately 35% of the state investment budget until early 1990s. Then, the DSI’s share has been

By early 1980s, raising environmental awareness in the global scenery and its ramifications in the local setting, namely Turkey, paved the way for enactments of legislation making environment as one of the basic fundamentals in water management policies. The reference to “environment” in 1982 Constitution³⁴, the Law on Environment of 1983³⁵, the establishment of Undersecretary for Environment, and the By-Law on Control and Prevention of Water Pollution (1988) are major examples of this era. Thus, along with the continued priority of water resources development, 1980s witnessed the ascendance of “water quality” issues, in terms of enactments of a number of legislation. In this respect, the “water quality” focus has gained a status side by side the stronghold of “water quantity” orientation. Turkey’s developing relations with the European Union also contributed to rise of legal salience of “water quality” in Turkey. Within this context, namely the gradual integration of environmental concerns into water management policy, it could be argued that water management legislation in Turkey had begun to be more “integrated” when compared with the priorities of 1950s up until 1980s.

Nevertheless, the issue of implementation and enforcement always remained high on agenda. In other words, changes in legal framework have not easily been translated into action. Therefore, required action for water quality protection and management lagged behind of the adopted legislation.³⁶

reduced to 20%. Decrease in water related infrastructure investments is partially attributable to the economic crises that Turkey had frequently been into (Bahadır Boz and Faruk Volkan, Ülkemizde Sulu Tarım Altyapısı Gerçekleştirmede Finansman Sorunları ve Çözüm Önerileri”, in *TMMOB Su Politikaları Kongresi Bildiriler Kitabı*, 2006, Ankara, p. 406.)

³⁴ Article 56 of the Constitution (1982) refers to the concept of “environment”.

³⁵ In accordance with the Article 31 of this Law, several By-laws are enacted (By-law on Control and Prevention of Water Pollution [1988] is one of these By-laws).

³⁶ Gökhan Orhan and Waltina Scheumann, “Turkey’s Policy for Combating Water Pollution”, in Ayşegül Kibaroglu, Annika Kramer and Waltina Scheumann (eds.), *Turkey’s Water Policy: National Frameworks and International Cooperation*, forthcoming, Springer Verlag, Berlin, 2011, page not available.

From 1990s onwards, two raising trends of “decentralization” and “privatization” had ramifications in Turkey’s water management policy. These trends are exemplified by several actions such as accelerated transfers of irrigation systems to users, the abolishment of General Directorate of Rural Services (GDRS), responsibilities of which are taken over by local level administrations, namely the Special Provincial Administrations (SPAs), and transfer of headquarters of the Southeastern Anatolian Project (“GAP” in Turkish acronym) Regional Development Agency, from Ankara to Şanlıurfa.

Currently, the challenge for Turkey, *inter alia*, is harmonization with the WFD, since Turkey is a candidate country to the EU. Indeed, because of the wide spectrum of actions that WFD implementation requires; harmonization with the EU water legislation would mean a broad reappraisal of Turkey’s water policy instruments and processes. Thus, harmonization with WFD will bring all three aspects of Turkey’s water management politics into discussion: its legal framework, its organizational setting and policy networks prevailing in water management policy, and its institutional arrangements³⁷. “What will change in Turkey, in terms of the WFD harmonization?”, and “in what ways will changes arising from the WFD requirements occur?” are two basic questions asked in an analysis focusing on Turkey’s adaption to the WFD. Next section will try to present and elaborate the basic terms of the dissertation in more detail through which these and similar questions could be tackled.

Interim studies suggest that the WFD requirements remain to be challenging for many Member States.³⁸ Being a country which is conducting accession negotiations with the EU, Turkey is obliged to take on WFD requirements by its time of entry into the Union. Given the studies which indicate difficulties of implementation of the

³⁷ Here, institutional arrangements mean organizations as social arrangements and governing institutionalized practices. A more detailed account is provided in the subsection “Institutions”.

³⁸ See European Environmental Bureau, *10 Years of the Water Framework Directive, A Toothless Tiger: A Snapshot Assessment of EU Environmental Ambitions*, 2010.

WFD in numerous Member States, it is likely that Turkey will experience significant changes in its water management policy.

The essence of the Directive, which is crystallized in the realization of “environmental objectives” via implementation of program of measures in framework of the river basin districts stand at odds with the “water resources development” focus of Turkey.³⁹ Even ancillary elements to the realization of the basic aim of WFD, which is reaching “good status”, signify challenges for Turkey. These include, *inter alia*, economic analysis, monitoring, public participation and organizational arrangements.

As a candidate country, negotiating with the EU on membership, Turkey faces the reality that it must align with the rules and procedures set out in the WFD. Hence, the nature of changes in Turkey that will likely occur in its march towards WFD harmonization is an important subject to focus on. This constitutes the core of the dissertation. The challenges that Turkey will face within the context of adaptation to the WFD will be analyzed in view of the developments that led to the Directive, and the rules and norms enshrined in the Directive.

The purpose of the dissertation is to demonstrate and analyze empirically (utilizing both qualitative and quantitative⁴⁰ methodologies) the major changes which will take place in Turkey’s water management policy as relates to Turkey’s implementation of the WFD.

It is argued that, in order to hypothesize a plausible account of the WFD’s impact on Turkey’s water management the three fundamental dimensions which politics of

³⁹ As the Draft National Implementation Plan puts, “Turkey gives priority to continued development of reservoirs and of flood embankments. These activities may run counter to the ecological status of waters and should be examined in the context of the Water Framework Directive as set out above (Article 4.7.)” (Republic of Turkey, Ministry of Environment and Forestry, “Draft National Implementation Plan- Water Framework Directive [2000/60/EC]”, p. 23).

⁴⁰ Here, the “Policy Network Analysis” is intended to be the quantitative methodology.

water management is built upon should be studied. These are institutions⁴¹, legal discourses⁴² and policy networks of Turkey's water management. It would be argued that, taking water management rather as a construct and disaggregating it into three interrelated dimensions and studying their nature and changes in them could contribute to understand better the real effect of WFD and ensuing changes in Turkey's water management

Therefore, the factor that will cause changes is the WFD, and the variable that will be affected by the WFD is the water management policy of Turkey. Therefore, this dissertation defines the changes that WFD implementation necessitates as the independent variable; and changes in legal discourses, institutions and policy networks as the dependent variables.

The hypothesis of the dissertation is as follows: The WFD will transform three dimensions of Turkish water management politics in varying degrees. As the steps that have been taken by Turkey within the WFD context indicate⁴³, while changes in policy networks and legal discourses tend to be greater and more immediate, the changes in "soft" institutions (i.e. institutionalized arrangements and practices) will be piecemeal and gradual. Two factors are assumed to contribute this: First, there are notable exemptions in the WFD, enabling Member States to escape from some of the obligations or perpetuate the process of implementation of certain tasks. It is argued that possibilities for exemptions in the WFD context will result in unequal levels of

⁴¹ In this dissertation, the institutions are used to mean "social arrangements and practices that shape and regulate human behavior and have some degree of permanency and purpose transcending individual human lives and intentions". Therefore, institutions are differentiated from organizations, which are groups of people with shared goals and formalized patterns of interaction. For more information on institutions, see Douglas North, *Institutions, Institutional Change and Economic Performance*, Cambridge University Press, Cambridge, 1990.

⁴² The discourse as inscription model, which is used to track changes in various policy areas in different settings (e.g. nation states, EU), will be utilized in this dissertation. In this approach, changes in legal texts are identified and discussed so as to represent changes in discourses. Further information on this mode of analysis will be provided in a separate section.

⁴³ The chapter discussing Turkey's efforts for harmonization with the WFD demonstrate that Turkey swiftly transposed most of the relevant EU water quality directives between 2004-2006. However, the chapter also discusses the insufficiency of the practical results that these Directives anticipate.

implementation of WFD in three dimensions of water management policy in Turkey which this dissertation focuses on (i.e. legal discourses, policy networks, institutions). While policy networks and legal discourses are more prone to change; the existence of a wide-range of exemptions will give room for institutions (particularly the informal institutions, namely modes of governance) to adapt more slowly than policy networks or legal discourses. Second, the difficulty in changing the established institutional setting. From 1950s to 1980s, there was a stronghold of “water resources development” approach in Turkey’s water management policy. In order to utilize the water resources potential of the country, relevant “hard” institutional setting was established and necessary legislation was adopted. This focus on water resources development concomitantly produced its “institutionalized practices” dimension. In other words, institutionalized practices related to pricing, monitoring, transboundary water affairs, river basin management and participation were developed in accordance with the focus of water resources development focus. Although environmental and social concerns (e.g. “water quality” aspects and participatory water management approaches) began to gain significance particularly beginning from 1980s, the “water resources development” continued to be a decisive focus of state authorities in determining the shape that water management policy would take.

1.2. Research Questions

In order to test this hypothesis, answering following questions are essential.

1. Where does Turkey stand in water management paradigms continuum?

An answer to this question will indispensably include a conceptual and historical analysis of Turkey’s water management policy. Water management in Turkey will be disaggregated into three dimensions in order to fully capture the extent of continuities and changes. The chapter focusing on Turkey’s water management

politics will try to answer this question via examining changes its legal discourses, institutions and policy networks prevalent in water management policy.

2. What, in essence, will the EU membership bring to Turkey's water management?

This is intrinsically linked with the question of what the water policy in the EU is, which is recently embodied in the WFD. The answer to this question will enable the author to compare and contrast the level of expected changes in three dimensions of Turkey's water management. Providing a well-grounded answer to this question necessitates an analytical study on the WFD itself. An analysis of the principles, approaches, and priorities reflected in the WFD will provide details on the anticipated framework of water management which is proposed by the EU. An analytical study of the changes that the WFD brings shall include not only the main text of the WFD, but also the evolution of the environmental policy in the EU which ultimately led to enactment of WFD, the conceptual discussions surrounding the drafting process of the WFD, and the CIS Document which was finalized after the adoption of the WFD.

3. What were the real effects of all the changes realized in Turkey in the name of WFD harmonization?

The quest for an answer to this question will entail a search for answers to further questions of first, "what has really changed and what has not?", and second, "why some areas of water management seem to be less penetrable or more resilient in terms of change?" These issues become significant for identification of the degree of changes in each pillar of Turkey's water management. Clarifying the differing levels of changes in three dimensions of water management and showing reasons for the "why" question above, i.e. "why this happened in the way it did" will provide a framework for analysis on the hypothesis of the dissertation. The relevant chapter focusing on the efforts of Turkey aiming for the alignment with the WFD will search answers for these questions.

1.3. The General Framework of the Dissertation

Water management is a complex phenomenon. As Malcolm Newson put it, “water is managed at various levels in the socio-political system”.⁴⁴ Therefore, in order to go beyond this complexity of water management, it could be useful to study water management through analyses of different dimensions that water management demonstrates. Within this framework, it is argued that water management in a given context could be decomposed into a number of components⁴⁵. This dissertation adopts the framework that water management policy in Turkey could be decomposed into (a) policy networks, (b) legal discourses and (c) institutions. The contribution of this decomposition will add an analytical vigor to the dissertation so that effects of WFD requirements are differentiated between these components. In other words, studying the effects of WFD on different components of Turkey’s water management policy will provide a refined analysis on the adaptability of these components prevailing in Turkey’s water management policy vis á vis WFD requirements.

1.3.1. Institutions

There is no single or universal definition for the term “institution”⁴⁶. Douglas C. North, for instance, defined institutions as “rules, enforcement characteristics of rules, and norms of behavior that structure repeated human interaction.”⁴⁷ According to Elinor Ostrom, institutions could be defined as people and the patterns of regular repetitive interactions among them that transform inputs to outputs.⁴⁸ As Svetozar

⁴⁴ Malcolm Newson, *Land, Water and Development: Sustainable and Adaptive Management of Rivers*, 3rd edn., Routledge, London 2009, p. 268.

⁴⁵ See R. Maria Saleth, “Water Institutions in India: Structure, Performance and Change”, in Chennat Gopalakrishnan, Cecilia Tortajada and Asit K. Biswas (eds.), *Water Institutions: Policies, Performance and Prospects*, Springer Verlag, Heidelberg, 2005, pp. 48-49.

⁴⁶Chennat Gopalakrishnan, “Water Allocation and Management in Hawaii: A Case of Institutional Entropy”, in Chennat Gopalakrishnan, Cecilia Tortajada and Asit K. Biswas (eds.), *op. cit.*, p.1.

⁴⁷ Douglas C. North, “Institutions and Economic Growth: An Historical Introduction”, in *World Development*, Vol. 17, 1989, p. 1321.

⁴⁸ See Elinor Ostrom, Larry Schroeder, and Susan Wynne, *Institutional Incentives and Sustainable Development: Infrastructure Policies in Perspective*, Boulder, CO: Westview Press, 1993.

Pejovich defines, institutions are the legal, administrative, and customary arrangements for repeated human interactions”⁴⁹ Therefore, as it can be derived from definitions of institutions, the term “institutions” usually connote a broad spectrum of concepts and practices. The institutional setting in water policy, thus, includes the political institutions⁵⁰, rights of use and disposal, ownership, the protection and use policies and social behavioral norms.⁵¹ It is recognized that “institutions such as property rights, social norms and economic instruments have multiple impacts on individual behavior and strategies”⁵².

The activities related to water resources development and water management in national, regional, or local units occur in a framework of institutional structures. The institutional structure in water management could be understood in its two distinct meanings. Narrowly, it defines the structuring of local, regional, and national institutions which are in charge of developing and managing water resources (water related organizations). Broadly, though, it includes not only the structure of responsible organizations of water management but also, perhaps more importantly, includes the laws, norms regulating the water rights and water allocations within the country, international norms, economic institutions like “water pricing” and practices of “privatization”, the “principles that govern land use”, the “types of local and national institutionalizations”, and “public involvement” in decision making procedures.⁵³

⁴⁹ Svetozar Pejovich, *Economic Analysis of Institutions and Systems*, 2nd edn., Kluwer Academic Publishers, Dordrecht, 1998, p. 23.

⁵⁰ For instance, “federalism” or “corporatism”.

⁵¹ Ingrid Kissling-Näf and Stefan Kuks, “Introduction to Institutional Resource Regimes: Comparative Framework and Theoretical Background”, in Ingrid Kissling-Näf and Stefan Kuks (eds.), *The Evolution of National Water Regimes in Europe*, Kluwer Academic Publishers, Netherlands, 2004, p. 4.

⁵² *Ibid.*, p. 1.

⁵³ Chennat Goplakrishnan, Cecilia Tortajada, and Asit K. Biswas (eds.), *op.cit.*, p. vi.

The second meaning is more encompassing and holistic in terms of coverage of as many facets of water management as possible. The second meaning is thought to have more explanatory power, i.e. the analyses of water management institutional structures. Based on the second meaning, one may have more to say about the prevailing discourses and underlying ideas in case discussed. In line with the second understanding, this dissertation takes the institutions as basically water management policy organizations *and* the governing institutionalized practices in water management policy.

Within this framework, institutional arrangements would be categorized into two forms. The first form entails “hard” institutions, namely organizations; which are the embodiments of social administrative rules. Organizations are groups of individuals who work toward a common goal or objective and have common interests.⁵⁴ Political parties, churches, schools, unions, or government agencies are some examples of organizations. Examples of hard institutions, with regards to the topic of this dissertation, include State Hydraulic Works, Ministry of Environment and Forestry, etc. The second form would be the “soft” institutions, which are the institutionalized patterns of practices. Examples to second form of institutions may involve privatization, pricing and public involvement.

1.3.2. Policy Networks:

The “network” has become a catch word for many scientific disciplines, including political science.⁵⁵ However, the use of network concept in political science dates back to early 1970s. The works of Graham Allison⁵⁶, Michael D. Cohen et al.⁵⁷ and

⁵⁴ For a wider discussion of the issue, see Rosalinde Klein Woolthuis, Maureen Lankhuizen, Victor Gilsing, “A system failure framework for innovation policy design”, in *Technovation*, Vol. 25, 2005, pp. 609-619.

⁵⁵ Tanja A. Börzel, “What's So Special About Policy Networks? - An Exploration of the Concept and Its Usefulness in Studying European Governance”, in *European Integration online Papers (EIoP)* Vol. 1, No. 16, 1997; available online at <http://eiop.or.at/eiop/texte/1997-016a.htm>, accessed 08.02.2010, p. 1.

⁵⁶ Graham Allison, *Essence of Decision: Explaining the Cuban Missile Crisis, 1ed.*, Little Brown, Boston, 1971.

Lindblom⁵⁸ presented the policy as the result of an interaction among a multitude of actors.⁵⁹

There is a great variety about the usages of the term. It is also the case that the term network is often vaguely used.⁶⁰ The term “network” in the political science realm basically means groups of different kinds of actors who are connected together in political, social or economic life.⁶¹

The origin of the “network” concept is a matter of dispute. The relevance of the network debate to public management and political science is increased in recent years, mainly due to a broad consensus that the “government is actually not the cockpit from which society is governed and that policy making processes rather are generally an interplay among various actors”.⁶² This consensus basically stems from the fact that, as argued by governance school, hierarchical coordination is rendered difficult in today’s increasingly complex and dynamic environment. In line with this argument, then, “governance becomes more and more only feasible within policy networks”.⁶³ This is because; policy networks provide a framework for an effective horizontal coordination of the interests and actions of public and private corporate actors, mutually dependent on their resources.⁶⁴ One of the earliest definitions of policy networks is Benson’s: “a cluster or complex of organizations connected to

⁵⁷ Michael D. Cohen, James G. March, , and Johan Olsen, “A garbage can model of organizational choice” in *Administrative Science Quarterly*, Vol. 17, No. 1, 1972, pp. 1-25.

⁵⁸ Charles E. Lindblom, *The Intelligence of Democracy*, Free Press, New York, 1965.

⁵⁹ Tanja A. Börzel, *op.cit.*, p. 4.

⁶⁰ *Ibid.*, p. 1.

⁶¹ John Peterson, “Policy Networks”, in Antje Wiener and Thomas Diez (eds.), *European Integration Theory*, Oxford University Press, Oxford, 2004, p. 1.

⁶² Erik-Hans Klijn and Joop F. M. Koppenjan, “Public Management and Policy Networks: Foundations of a Network Approach to Governance”, in *Public Management*, Vol. 2, No. 2, 2000, p. 135.

⁶³ Tanja A. Börzel, *op. cit.*, p. 8.

⁶⁴ *Ibid.*

each other by resource dependencies and distinguished from other clusters or complexes by breaks in the structure of resource dependencies”.⁶⁵ According to Peterson and Bomberg, the term “policy network” is generally used to mean “a cluster of actors, each of which has an interest, or ‘stake’ in a given policy sector and the capacity to help determine policy success or failure”⁶⁶

In International Relations (IR), the “policy networks” is a novel subject. Within IR theory, a “network model” is recently been identified by Hans Kassim and then it is applied to European integration. According to this view, unlike state-centric two-level game conception, as put by liberal inter-governmentalists, European governance is composed of multiple linkages and interrelations bringing together a large number of actors of many kinds.⁶⁷ Yet, Kassim does not use “network model” interchangeably with “policy networks” approach and makes a distinction by stating that each of these concepts reflect “different origins and different ambitions”⁶⁸ Therefore, “policy networks” in IR are so far taken as a metaphor, and a more theoretically sophisticated “policy networks” concept is only emerging. In this respect, it is concluded that “network analysis is no theory in *strictu sensu*, but rather a tool box for describing and measuring relational configurations, and their structural characteristics.”⁶⁹

Despite a general agreement on the relevance of policy networks to policy making processes, hypotheses discussing the influence of policy networks on the

⁶⁵ Kenneth J. Benson, “A Framework for Policy Analysis,” in David Rogers, et al. (eds.) *Interorganizational Co-ordination: Theory, Research and Implementation*, Iowa State University Press, Ames, Iowa, 1982, p. 148.

⁶⁶ John Peterson and Elizabeth Bomberg, *Decision-Making in the Europe*, Macmillan, Basingstoke, 1999, p. 8.

⁶⁷ Hans Kassim, “Policy Networks, Networks and European Union Policy-Making: A Sceptical View”, in *West European Politics*, Vol. 17, No. 4, 1994, p. 19.

⁶⁸ *Ibid.*, p. 17.

⁶⁹ Quoted from Patrick Kenis and Volker Schneider, “Policy Networks and Policy Analysis: Scrutinizing a New Analytical Toolbox”, in Bernd Marin and Renate Mayntz (eds.), *Policy Network: Empirical Evidence and Theoretical Considerations*, Campus Verlag, Frankfurt am Main, 1991, p. 44; in Tanja A. Börzel, *op. cit.*, p. 15.

formulation, implementation and change of policies are lacking.⁷⁰ As Keohane and Hoffmann puts, policy networks in IR “helps to emphasize the horizontal ties among actors and the complexity of their relationships, but (...) does not elaborate clear hypotheses about behavior”⁷¹

According to network approach, actors are mutually dependent and they cannot achieve their goals without the resources of other actors. In this framework, policy network approach has three basic assumptions. First, modern governance is not simply hierarchical. Only few policy formulations are imposed by public authorities. Indeed, based on the mutuality and interdependence, both public and non-public actors are involved in governance. Second, each policy area should be disaggregated and analyzed separately because of the fact that “relationships between groups and government vary between policy areas”⁷². And third, through series of bargains, policy choices and agendas are processed and shaped by a diverse set of actors, including public and non-public authorities.

The networks form a context in which actors try to act strategically and usually confronted by strategic actions of other actors. Within networks, then, a series of interactions take place. In these interactions, each of the various actors has its own perceptions on the nature of the problem, on the desired solutions and on the other actors in the network.⁷³

Despite the numerous applications of the network concept to various policy processes, there are several criticisms directed towards the network approach, such that it lacks theoretical foundations and clear concepts, it lacks explanatory power, it

⁷⁰ *Ibid.*

⁷¹ Robert O. Keohane and Stanley Hoffmann, “Institutional Change in Europe in the 1980s” in Robert O. Keohane and Stanley Hoffmann (eds.), *the New European Community: Decisionmaking and Institutional Change*, Westview Press, Oxford and Boulder, 1991, p. 14.

⁷² Rod A. W. Rhodes, *Understanding Governance: Policy Networks, Governance, Reflexivity, and Accountability*, Open University Press, Buckingham, 1997, p. 32.

⁷³ Tanja A. Börzel, *op. cit.*, p. 4.

neglects the role of power, it lacks clear evaluation criteria (network approach rejects the use of *ex ante* formulated goals, e.g. of governments', as evaluation criteria), and it considers government organizations to be as any other organization and neglects their role as guardian of public interest.⁷⁴

All in all, it is stated that the network approach has some analytical power in going beyond the explanations of the "horizontal coordination", where representatives of public organizations simply discuss and reach a decision on a given policy area. In this respect, network approach reflects the changed relationship between the state and society. Instead of a policy emanating from a central authority, according to this changed relationship, policy-making today, denotes a process involving composed of a range of public and private actors. Network approach emphasizes this "interdependence" among various actors, sometimes called "polity".⁷⁵ Analysis of networks, through which policies are shaped, are regarded as a valuable analytical tool in explaining this new public decision-making structures: "[u]nlike other theories which share a state-centric conception of governance based on a national or supranational authority for hierarchical co-ordination in public policy-making, the concept of policy network is able to conceptualize this emerging form of 'governance without government' ".⁷⁶

It is assumed that "policy network" analysis taking into consideration of all relevant actors involved in water management activities, and interrelations among them could provide a genuine understanding on Turkey's water management-which was often characterized as fractionalized and complex. To put it in another way, looking at relations or some set of relations among selected actors is not enough to perceive such a system in which overlapping mandates and responsibilities said to hinder an efficient water management. Therefore, analysis of policy networks would be an

⁷⁴ *Ibid.*, p. 1.

⁷⁵ Rod A. W. Rhodes, *op. cit.*, p. 4.

⁷⁶ Tanja A. Börzel, *op. cit.*, p. 10.

analytical tool through which policy outcomes are analyzed with an integrated approach.

This network analysis would then possibly reveal the upcoming challenges as well changes in Turkey as the WFD requires a network of actors through which efficient water management institutions are in place, such as “cost recovery”, “public participation”, etc. This kind of analysis could also demonstrate better the weaknesses of coordination among different institutions and foster the solutions to overcome the alleged fractionalized organizational structure. This type of analysis requires not only an evaluation of the institutions themselves, but also the legal grounds they depend upon. So, the policy networks should be thought and analyzed in conjunction with the legal documents (discourses) and prevailing institutional practices in the country.

Through an evaluation of changing roles of actors in the water policy-making in Turkey, policy network analysis could provide insights for examining what type of changes are occurring and could be expected to occur, as well as reference points for further research. For instance, enactments of new legislation suggest that some policy functions (such as “monitoring and evaluation”) are getting more significant in the policy network. Also, some actors’ positions within the network are changing. To illustrate, the State Hydraulic Works was previously operating (i.e. conducting water resources development activities, construction of physical infrastructure like dams, regulators etc.) under the structures of Ministry of Public Works and Settlement (MPWS), and Ministry of Energy and Natural Resources (MENR), which both have adopted “pro-investment” perspectives. By having been incorporated into the organizational structure of MoEF, the DSI has presumably become more dependent upon the discourses and practices of the Ministry of Environment and Forestry, which has a more “green” (or “protection-focused”) perspective than the MPWS or MENR. Similarly, the General Directorate of Rural Services (GDRS) (under the Ministry of Agriculture and Rural Services) was abolished in 2005. The GDRS was

responsible to supply water for villages. All its responsibilities were transferred to a local level organization, namely Special Provincial Administrations (SPAs), and the implementation of this project is given to the hands of Provincial Governors (“Vali” in Turkish) as they are the head of SPAs. With the visualizations of policy network analysis, it is easier to track the changes in policy networks via comparing responsibilities of actors in time, and to capture the overall new picture.

Thus, it is assumed here that, the policy network analysis, the main elements of which will be the stakeholders in Turkey (public and private actors in decision-making) provides an appropriate framework of analysis of the changes stimulated by the desire of Turkey to become an EU Member State and anticipated changes in the field of water policy.

1.3.3. Legal Discourses

The term “social construction” has become a well-established theoretical concept in recent years. The contribution of the social constructivism in IR appears to be that interests are not out there by themselves, but they are essentially constructed. Ideas, norms, values and social processes are constitutive of actors’ identities and thus interests. In other words, they shape the worldviews of actors and their interests. Through powers of influence, persuasion and legitimization, they can shape action. Within this context, the social constructivism respects the power of language in “objectifying” the world. In this regard, it is argued by social constructivists that the real world, the problems in it and interests are not objectively given, but are only apprehended through language.⁷⁷ The term “discourse” is used in order to signify “all utterances or texts which have meaning and which some effects in the real world”⁷⁸ The main-stream constructivism thus attributes importance to the power of

⁷⁷ William Walters, “The Power of Inscription: Beyond Social Construction and Deconstruction in European Integration Studies”, in *Millennium- Journal of International Studies*, Vol. 31, No. 83, 2002, pp. 90-91.

⁷⁸ Sara Mills, *Discourse*, Routledge, London, 2004, p. 6.

“discourse” in shaping the ideas and interests agents. Through this way, discourse has a power for being one of the constitutive elements of reality.

Representation of discourse is basically understood in two manners: one is related with social or ideational, the other one is material and technical. As “construction should not be seen in purely social or ideational terms; for it can also be grasped at a material and technical level”⁷⁹.

Not only the ideas or social processes shape interests. Socio-political processes like “water management” becomes also visible by inscriptions, which are composed of laws, by-laws, statutes etc. These are “the materials out of which the fields of visibility of government are literally constructed.” In other words, these legal texts are regarded as the “material dimension of discourse”. For Walters, the power of inscription lies in “grasping the mundane and generally ignored realm of practices which enable realities to be inscribed, and spaces of visibility assembled.”⁸⁰ The legal texts perform their function by not only stating the basic purposes of the relevant policy, but by also they function through defining and limiting the roles, duties, competences and responsibilities of public organizations involved in various water management issues. They make the organizational structure inscribed, thus making it visible and comparable.

Within this context, studying the legal materials such as laws, by-laws, or statutes in Turkey’s water management policy has an analytical power in two respects. One is associated with their power in enabling us to grasp the priorities and goals embedded in this written rhetoric. Because, legal documents delineate the responsibilities and duties of water related organizations and set out the priorities of public authorities. In other words, studying through the legal texts, one can have a perception of which water use is prioritized, how pricing instruments are utilized, which organization(s) is given a powerful status or what extent the public participation is envisaged in policy

⁷⁹ William Walters, *op. cit.*, p. 92.

⁸⁰ *Ibid.*, p. 91.

making processes. The second is related with the portrayal of inter-organization linkages, which in turn, makes depiction of a policy network map possible.

To summarize, the policy networks denote the relations and the pattern(s) in these relations of actors involved in water management policy formulation and implementation; discourses represent the primary ideas, priorities, goals, norms, values that are shaped through legal documents; and institutions stand for the patterns of governing practices of water management.

However, this compartmentalization does not rule out the fact that all of these components are interlinked. There are two-way interactions between all three dimensions. Changes in one dimension could have an effect on others, as well. (See Figure 1) As a whole, they form the water management policy in a given context.

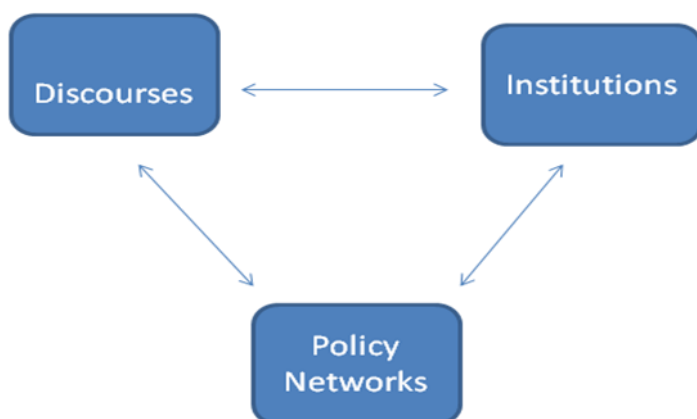


Figure 1. Triad of Dimensions

The goal of this dissertation to identify three dimensions of Turkey's water management and to evaluate changes in them vis á vis challenges stemming from the EU Water Framework Directive. Instead of taking it as a unitary concept, disaggregating the water management system into its sub-systemic components, i.e. an analysis of it as a trivet is significant in the sense that it makes it easier to understand the interrelations of the different sections of policy-making and

implementation, which in turn makes it possible to get a more accurate picture of the whole setting and functioning of the system and impacts on it.

1.4. Review of Literature

1.4.1. The WFD

The Literature on the WFD is rapidly growing in parallel to implementational path of the WFD. This growing literature on the WFD has manifold foci. This broad range of foci include, but not limited to, technical aspects⁸¹ of the Directive, i.e. studying certain Articles⁸² or principles⁸³ of the Directive; case studies⁸⁴, such as taking one country or a basin and discussing its adaptation to WFD requirements; the process of drafting of the WFD⁸⁵, or even comparing the WFD with some other countries⁸⁶

⁸¹ For instance, see Marina Coquery, et al., “Priority Substances of the European Water Framework Directive: Analytical Challenges in Monitoring Water”, an *INERIS* document, on file with author. Also see Piet F. M. Verdonchot and Rebi C. Nijboer, “Testing the European stream typology of the Water Framework Directive for macroinvertebrates”, in *Hydrobiologia*, Vol. 516, 2004, pp. 35–54.

⁸² For instance, see Roy Brouwer, “Assessment of Environmental and Resource Cost in the Water Framework Directive”, paper presented for the workshop *Hydro-economic modelling and tools for implementation of the EU Water Framework Directive*, Valencia, Spain, 30-31 January 2006.

⁸³ For instance, see Britta Kastens, Ilke Borowski, Dagmar Ridder, “Public Participation towards the Implementation of the EU Water Framework Directive- A means to Lessen Uncertainty?”, paper presented at the *International Conference on Adaptive and Integrated Water Management*, 12-15 November 2007, Basel, Switzerland. Also see Elisabeth Grönlund and Tapio Määttä, “Implications of Flexibility in European Community Environmental Law: Exemptions from Environmental Objectives in the Water Framework Directive”, in *Hydrobiologia*, Vol. 599, 2008, pp. 221-226. Also see Jens Newig, Claudia Pahl-Wostl and Katja Sigel, “The Role of Public Participation in Managing Uncertainty in the Implementation of the Water Framework Directive”, in *European Environment*, Vol. 15, 2005, pp. 333-343.

⁸⁴ For instance, see Anonymous, “Jucar Pilot River Basin, Provisional Article 5 Report”, pursuant to the Water Framework Directive, September 2004, PDF file of the report is available on the Jucar Pilot River Basin website: www.chj.es accessed on 07.04.2006. Also see David H. Getches, “Spain’s Ebro River Transfers: Test Case for Water Policy in the European Union”, in *Water Resources Development*, Vol. 19, No. 3, September 2003, pp. 501–512. Also see Peeter Marksoo, *op. cit.*

⁸⁵ For instance, see Maria Kaika and Ben Page, “The EU Water Framework Directive: Part 1. European Policy-Making and the Changing Topography of Lobbying”, in *European Environment*, Vol. 13, 2003, and Ben Page and Maria Kaika, “The EU Water Framework Directive: Part 2. Policy Innovation and Shifting Choreography of Governance”, in *European Environment*, Vol. 13, 2003, pp. 314-327.

⁸⁶ For instance see Marco Vighi, Antonio Finizio and Sara Villa, “The Evolution of the Environmental Quality Concept: From the US EPA Red Book to the European Water Framework Directive”, in *Environmental Science & Pollution of Resources*, Vol. 13, No. 1, 2006, pp. 9-14.

water legislation. Different disciplines such as biology, geography, city planning, history etc. have all took relevant focal points in the WFD from their disciplinary purposes.

Apart from these diverse foci of studies, the literature on the WFD broadly falls into following group of studies in terms of their orientation and approach. First group is composed of the official documents, legal texts adopted by the EU, proceedings of regular conferences held by the EU, within which EU officials and Member State representatives raised their official points of views. These are regarded as primary sources by those studying the WFD. The very text of the WFD⁸⁷, the Common Implementation Strategy Documents⁸⁸ and informative booklets disseminated by the Commission⁸⁹, etc. could be given as examples of this group of work.

Second group of studies are those which took descriptive stances and basically gave information about the content of the WFD. This line of literature was dominant during the early stages of the WFD, i.e. from 2000 to 2002. These studies' main point of departure was the information provided by the European Union's web site and official documents.

Third group of studies are inclined to focus on various challenges that the Member States will encounter during their efforts for adaptation, and reflect more on the interpretative aspects of the Directive, sometimes criticizing the Directive itself. These studies are relevant to the dissertation, because the dissertation focuses on the challenges that Turkey will face during WFD harmonization process. As illustrated below, the following selected publications contributed to the arguments of this dissertation via providing supportive evidence.

⁸⁷ Directive 2000/60/EC.

⁸⁸ See for instance, European Communities, *Guidance Document No. 1: Economics and the Environment, the Implementation Challenge of the Water Framework Directive*, 2003. Also see European Communities, *Guidance Document No. 8: Public participation in relation to the Water Framework Directive*, Luxembourg, 2003.

⁸⁹ For intance, see European Commission, *Water Policy: Member States must do more to achieve good water quality*, Brussels, 2007. Also see European Commission, *Water Framework Directive (WFD) Implementation: Risk of failing to set EU wide standards for ecological classification*, Briefing document, Brussels, 10.10.2006.

For instance, Maria Kaika examined the preparatory and early implementation stages of the WFD, and put forward analytical arguments, some being contrary to the official view stated by the European Commission.⁹⁰ For instance, Kaika argued only well-funded NGOs were able to participate in negotiation of the WFD. She concludes that, the preparation for the WFD was not a real participatory process.⁹¹

Economic aspects of the WFD attracted attention, too. Jose Albiac et al., for instance, argued that the reliance of the Water Framework Directive on water pricing may fail in Mediterranean countries, because water pricing is quite complex to implement in irrigated agriculture, and its political acceptability remains to be seen. Additionally, increasing water prices would reduce consumption in irrigation districts based on large collective systems and low profitable crops, where degradation problems are moderate.⁹² This article suggests that it would be challenging for Mediterranean countries, including Turkey to implement WFD rules on water pricing in agriculture.

The uncertainty embedded in the WFD is a frequent topic examined in several works. To illustrate, Marleen Rijswick tries to find an answer to the question “what kind of obligations?” that WFD brings, and differentiates between two types of obligations: the “obligation of result” and “obligation to perform to the best of one’s abilities”. Rijswick finds “analysis of the wording” of the Directive essential and following such an analysis she ultimately reaches the conclusion that the Directive has required the achievement of a certain result for protected areas, whereas obligations for surface and groundwaters could be considered as an obligation to perform to the best of one’s abilities. This publication is significant in the sense that it demonstrated the legal weakness in the WFD which could result in low level of implementation with particular regard to surface and groundwaters.

⁹⁰ Maria Kaika and Ben Page, *op.cit.*, and Ben Page and Maria Kaika, *op.cit.*

⁹¹ See Maria Kaika, “The Water Framework Directive: A New Directive for a Changing Social, Political and Economic European Framework”, in *European Planning Studies*, Vol. 11, No. 3, 2003, pp. 299-316.

⁹² Jose Albiac, Yolanda Martinez and Javier Tapia, “Water Quantity and Quality Issues in Mediterranean Agriculture”, in Kevin Parris and Thresa Poincet (eds.), *Water and Agriculture: Sustainability, Markets and Policies*, OECD Publishing, New York, 2006, pp. 137-156.

Muhammad Mizanur Rahaman et al. challenged the idea that the WFD is an Integrated Water Resources Management (IWRM) act, and tried to demonstrate that there are seven major misfits between the WFD and the IWRM paradigm.⁹³ Rahaman et al. presented the WFD rather as a tailored solution for European needs in water management policy, with significant misfits with the concept of IWRM.

David Grimeaud's (2001) and William Howarth's articles with regards to the "enforceability" of the Directive are also worth mentioning. David Grimeaud raised the issues as WFD is "over ambitious in its objectives, insufficiently stringent in its legal formulation and too generous in the discretion that it gives to Member States in respect of implementation."⁹⁴ In similar vein, Howarth argues that WFD exemplifies a recent trend in European environmental law, which is characterized by "proceduralization". This means, instead of substantive and regulatory approaches which required specified standards for emissions and environmental quality; recent European environmental law, including the WFD, only obliges Member States to follow specific "procedures".⁹⁵ Elisabeth Grönlund's and Tapio Määttä's work is also relevant to this line of literature.⁹⁶ They present exemptions within the context of WFD under six headings. All these works support the argument that there is a certain degree of flexibility existing in the Directive. In line with this, it is argued that possibilities for exemptions will result in unequal levels of implementation of WFD in three dimensions of water management policy in Turkey which this dissertation focuses on (i.e. legal discourses, policy networks, institutions). The literature on the proceduralization suggest that, changes in legal discourses and

⁹³ Muhammad Mizanur Rahaman, Olli Varis and Tommi Kajander, "EU Water Framework Directive vs. Integrated Water Resources Management: The Seven Mismatches", in *Water Resources Development*, Vol. 20, No. 4, December 2004, pp. 565-575.

⁹⁴ See David Grimeaud, "Reforming EU Water Law: Towards Sustainability", in *EELR*, pp. 41-51, 88-97, 125-135, also cited in William Howarth, "Aspirations and Realities under the Water Framework Directive: Proceduralisation, Participation and Practicalities", in *Journal of Environmental Law*, Vol. 21, No. 3, 2009, p. 394.

⁹⁵ William Howarth, *op. cit.*, pp. 394-395.

⁹⁶ Elisabeth Grönlund and Tapio Määttä, *op. cit.*

policy networks are more easier to achieve, for they are associated with “procedural” part of the WFD requirements, while the “substantive” elements of the Directive, which relate to the institutions (institutionalized practices) necessitate more time and effort.

Environmental NGO’s works could be listed under a fourth category. In this group of studies, those of the World Wildlife Fund (WWF) are of utmost significance. One of outstanding characteristics of these studies is that they generally have a skeptical attitude of the Directive. These studies maintain that the WFD has a number of “serious shortcomings”.⁹⁷

1.4.2. Turkey’s Water Management Policy

The literature on Turkey’s water management features a broad spectrum concerning works’ foci and orientation. Turkish water management studies originate basically from three sources universities, governmental institutions, international organizations, and non-governmental organizations. Bulk of the works originates from various disciplines in universities and academic institutions (geography, sociology, international relations, civil engineering, environmental engineering, economics, etc.). Governmental institutions, (e.g. DSİ, MoEF, EİEİ, MARA) produce considerable output through preparing reports, law proposals, bulletins, articles, periodicals and books. There is significant number of studies prepared by international organizations such as the World Bank, the OECD, the European Commission, and the FAO. Due to their limited capacity in terms of finance and personnel, non-governmental institutions’ (e.g. Environment Foundation, WWF-Turkey, Turmepa) studies are fewer.

⁹⁷ WWF, “Water Framework Directive implementation 2000-2009: Role and strategies of the environmental NGOs”, *Report 2010*, Norway, p. 3. Also see Özden Bilen, *op. cit.*, “Türkiye’nin Su...”, 2009.

Studies on Turkish water management focus on historical developments⁹⁸, issues of water resources development⁹⁹, legal aspects of water management¹⁰⁰, transboundary water relations¹⁰¹, criticize actual priorities and neoliberal practices¹⁰², examine a specific region or basin¹⁰³ (GAP Project, Sakarya river basin etc.), or focus on a specific dimension of water management (pricing¹⁰⁴, water quality management¹⁰⁵, flood control¹⁰⁶, resettlement¹⁰⁷, etc.).

⁹⁸ General Directorate of State Hydraulic Works (DSİ Genel Müdürlüğü), *Dünden Bugüne DSİ* (1954-2004), 2004, Ankara. Also see Abdullah Demir, *Su ve DSİ Tarihi*, DSİ Vakfı Yayınları, 2001. Also see Süleyman Demirel, *Bir Ömür Suyun Peşinde*, ABC Kitabevi, 2005.

⁹⁹ For instance see, Selami Oğuz, *Su Raporu 2009*, Ebru Matbaacılık, İstanbul, 2010. Also see Ali Balaban, *Türkiye’de Su Kaynaklarının Geliştirilmesi ve Problemleri*, TMMOB Ziraat Mühendisleri Odası, Mars Matbaası, Ankara, 1964.

¹⁰⁰ Aynur A. Coşkun, “AB Su Çerçeve Direktifi Kapsamında Nehir Havza Yönetim Planlarının Hukuki Analizi”, available online at <http://www.turkhukuksitesi.com>, accessed on 10.06.2009. Also see Toprak-Su-Enerji, “Çerçeve Su Yasası mı? Su Kaynakları Bakanlığı Yasası mı?”, Ankara, 2010, available online at <http://www.topraksuenerji.org>, accessed on 04.07.2011, also see Erkan Ertürk, *Uygulamada Su Davaları (Sular Hukuku)*, Kartal Yayınevi, İstanbul, 2005.

¹⁰¹ For instance, see Ayşegül Kibaroglu, Waltina Scheumann, Axel Klaphake, Annika Kramer, Alexander Carius, *Cooperation on Turkey’s Transboundary Waters*, Adelphi Research, Berlin Technical University, Federal Ministry for Environment, Nature Conservation and Nuclear Safety, Berlin, 2005.

¹⁰² Tayfun Çınar and Hülya K. Özdiñç (eds.), *Su Yönetimi: Küresel Politika ve Uygulamalara Eleştiri*, Memleket Yayınları, Ankara, 2006.

¹⁰³ Ahmet Özer, Güneydoğu Anadolu ve GAP Gerçeği: *Sosyo-ekonomik ve Kültürel Boyutlar*, Damar Yayınları, İstanbul, 1990. Also see Dursun Yıldız, *GAP: Bölgede Ekonomik, Stratejik ve Siyasal Gelişmeler*, Ankara, 2009.

¹⁰⁴ For instance, see Afşin Şahin “Türkiye’de Tarımsal Su Kullanımında Fiyatlandırma Politikaları”, in *Kamu-İş Dergisi*, Vol. 9, No. 3, 2007, pp. 97-109.

¹⁰⁵ For instance, see Republic of Turkey, *Turkey Water Report 2009*, Ankara, 2009. Also see Serdar Kalaycı and Ercan Kahya, “Susurluk Havzası Nehirlerinde Su Kalitesi Trendlerinin Belirlenmesi”, in *Turkish Journal of Engineering and Environmental Science*, Vol. 22, 1998, pp. 503-514. Also see Sönmez Girgin, Nilgün Kazancı and Orhan Doğan, “A New Approach to the Irrigation Water Quality Criteria in Turkey: Ankara Stream”, paper presented at *International Conference on Water management, salinity and pollution control towards sustainable irrigation in the Mediterranean Region*, Bari, Italy, 1997, pp. 43-54.

¹⁰⁶ For instance, see General Directorate of State Hydraulic Works, Directorate General XI., *Taşkın Konferansı Bildiriler Kitabı*, 5. Dünya Su Forumu Bölgesel Su Toplantıları, Edirne, 19-20 June 2008.

¹⁰⁷ Z. Ertuğrul Özkalaycı ve Hikmet İçten, “Yeniden Yerleşim Planlamaları ve Devlet Su İşleri Genel Müdürlüğü’ndeki Uygulamaları”, *TMMOB Harita ve Kadastro Mühendisleri Odası 10. Türkiye*

“Su ve DSİ Tarihi” (Water and the History of DSİ) by Abdullah Demir, is an example to studies focusing on the history of the water resources development practices in Turkey. It provides valuable insights on the establishment and development of the concept of “water resources development” in Turkey.¹⁰⁸ “Su Yönetimi: Küresel Politikalara Eleştiri” (Water Management: A Critique to Global Policies), a book edited by Çınar and Özdiç basically present perspectives on criticizing recent neoliberal practices in water management in Turkey. A Chapter in the book specifically discusses the steps taken by Turkey in order to meet the WFD rules. Bilen’s recent contribution discusses a broad range of issues in Turkey’s water management. Bilen devoted significant part of the book for focusing on the development of the EU water policies and then its influence on the water management policies of Turkey. He drew attention to the argument that the water quality orientation of the WFD stands at odds with the water resources development aspirations of Turkey.¹⁰⁹

1.4.3. Turkey and the WFD

Concerning the literature on the relation between Turkey’s water policy and the WFD, it could be maintained that the literature on this area is limited since the WFD is a relatively new subject in Turkey-EU relations. Given the fact that the negotiations on the Environmental Chapter had started in 2009, one may expect an increase in the number of studies on WFD-Turkey relations.

Studies concerning water policy in Turkey largely focus on legal and organizational framework of water management in Turkey. Also, there are a number of studies which examine Turkey’s water policies in relation with the requirements of the WFD. For instance, A. Aynur Coşkun discusses the legal situation in Turkey

Harita Bilimsel ve Teknik Kurultayı 28 March - 1 April 2005, Ankara. Also see Anadolu Kalkınma Vakfı, *Yeniden Yerleşim Planlaması, Uygulaması, İzleme ve Rehabilitasyon*, Ankara, 1995.

¹⁰⁸ Abdullah Demir, *op. cit.*

¹⁰⁹ Özden Bilen, *op. cit.*, “Türkiye’nin Su...”.

concerning the river basin planning approach.¹¹⁰ Another study by Oktay Aksoy¹¹¹ focuses on the transboundary aspects of the WFD and criticizes water related statements contained in the reports of the European Parliament. There are several studies discussing the technicalities of the WFD and their implementation in Turkey. For instance Solak and Acs', and Çodur et al.'s works provides exemplar works of this category.¹¹² Reports of various projects focus on what is needed to be changed for Turkey's adaptation into the WFD setting. For instance outputs of the Twinning Projects (8e.g. "Capacity Building Support to the Water Sector in Turkey") are this kind of studies. There are several papers in the "TMMOB Su Politikaları Kongresi- Conference Proceedings" discusses the certain aspects of water management in Turkey vis á vis WFD requirements. For instance, Kibaroglu et al. discusses the WFD rules through an examination of Spanish experience of WFD adaptation. As Spain has significant similarities with Turkey, in terms of climate, hydrology, and water use, Spanish experience has relevance for Turkey's WFD harmonization process.¹¹³ Another example would be Akkaya et al.'s article, which discusses the applicability of the WFD rules in Turkey. This study goes over key provisions of the WFD and evaluates their ramifications on Turkey's water policy.¹¹⁴ In a paper submitted to an international conference in Macedonia, Gürlük analyzes the challenges that Turkey could face during its process of implementation of the WFD, particularly with regards to operationalization of the concept of "river basin

¹¹⁰ Aynur A. Coşkun, *op. cit.*

¹¹¹ Oktay Aksoy, "Avrupa Birliği'ne Katılım Sürecinde Türk Suları", in *Stratejik Analiz*, Vol. 7, No. 80, December 2006, pp. 20-24.

¹¹² Cüneyt Nadir Solak and Eva Acs, "Avrupa Birliği Ülkelerinde ve Türkiye'de Su Kalitesinin Diyatome İndekslerine Bağlı Olarak Belirlenmesi", paper submitted to Ulusal Su Günleri 2007, 16-18 May 2007, Antalya, Turkey. Dursun Ali Çodur, Mehmet Patan, Nevzat Uyaroglu, Orhan C. Göktaş and Deniz Aydın, "İstanbul Water Basin Management and European Union Water Framework Directive", paper presented at *International Congress on River Basin Management*, 2007, Antalya, Turkey.

¹¹³ Ayşegül Kibaroglu, Vakur Sümer, Özlem Kaplan and İlhan Sağsen, "Türkiye'nin Su Kaynakları Politikasına Kapsamlı Bir Bakış: Avrupa Birliği Su Çerçeve Direktifi Ve İspanya Örneği", paper presented at *TMMOB Su Politikaları Kongresi*, Ankara, 2006.

¹¹⁴ Cansen Akkaya, Ayla Efeoğlu and Nedim Yeşil, "Avrupa Birliği Su Çerçeve Direktifi ve Türkiye'de Uygulanabilirliği", paper presented at *TMMOB Su Politikaları Kongresi*, Ankara, 2006.

management”.¹¹⁵ A presentation by Ayla Efeođlu, an expert in DSİ on water relations between EU and Turkey, provides a summary of what has basically been done in Turkey within the context of WFD harmonization.¹¹⁶ Similarly, Hasan Z. Sarıkaya’s and Nermin Çiçek’s article also focuses on the implementation related activities in Turkey with regards to the WFD.¹¹⁷

Analyzing this literature one may discern the broad range of topics discussed. Although many questions related to issue of WFD implementation in Turkey is being discussed throughout studies, many of the evaluations remain to be superficial. Thus, a holistic and an analytical study focusing on not only all the elements of the WFD but also on all the challenges that Turkey has been experiencing in its process of harmonization with the WFD is lacking. One goal of this dissertation is to make such a contribution to this emerging literature.

1.4.4. Contribution to the Literature

The summarized literature above contributed to the discussion of the subject of this dissertation in a number of ways. First of all, studies on WFD interpreted the Directive from several perspectives, and applied it to a number of cases across Europe.¹¹⁸ Turkey has limited water resources when compared to most of northern European countries. In this respect, making such a study for Turkish case becomes

¹¹⁵ Serkan Gürlük, “Turkey’s Challenges of River Basin Management in the Implementation of the European Union Water Framework Directive”, paper presented at *BALWOIS 2008*, 27- 31 May 2008, Ohrid, Republic of Macedonia.

¹¹⁶ Ayla Efeođlu, Branch Manager at DSİ, Relations with the European Union, “Avrupa Birliđi Su Çerçeve Direktifi ve Bu Alanda Türkiye’de Yürütölen Çalıřmalar”, powerpoint presentation, 2005, available online at http://www.gapsel.org/condocs//ekutuphane/20051215_aylaefeođlu.pdf, accessed on 03.04.2011.

¹¹⁷ Hasan Z. Sarıkaya and Nermin Çiçek, “Su Kaynaklarının Yönetimi, AB Süreci ve Çevre ve Orman Bakanlığı Uygulamaları”, in *Günce*, Vol. 40, April 2010, pp. 5-13.

¹¹⁸ See for instance Timothy Moss’ discussion of the WFD, “Solving Problems of ‘Fit’ at the Expense of Problems of ‘Interplay’? The Spatial Reorganisation of Water Management Following the EU Water Framework Directive”, in Peter Mollinga, Ajaya Dixit and Kusum Athukorala (eds.), *op.cit.*, pp. 86-103. Also see, Peeter Marksoo, *op.cit.*

intriguing. Through an analysis of WFD related challenges for a semi-arid country located in southeastern Europe, namely Turkey; some lessons could be derived for WFD harmonization in similar settings. For instance, the validity of the full-cost recovery in agriculture sector in countries like Turkey, where a sizeable portion of the society is living on agriculture, is a multi-dimensional matter to be discussed. This matter is multidimensional because of its possible social, cultural, economic and political ramifications. Due to the dependence of agriculture in Turkey on irrigation, realizing full-cost recovery principle of the WFD could ultimately result in shrinkage of irrigated lands, an outcome which could render WFD objectives redundant in the eyes of public authorities. As this example illustrates, the challenges that Turkey face in the WFD process could trigger a debate through which problems of similar semi-arid countries' are raised high on the political agenda.

Besides, there is a need for a comprehensive study comparing the WFD requirements with the existing situation in Turkey. Various reports and studies provided discussions on the legal and organizational setting in Turkey's water management. The necessity of a framework law is emphasized by a number of sources. The dichotomy relations with "water quality" and "water quantity" in terms of water management orientations are discussed.¹¹⁹ Also, the legal ramifications of the application of the river basin planning in Turkey are analyzed. These studies provided valuable data, information and ideas enabling development of present dissertation. However, the need for a comprehensive study taking into account of all aspects of both the WFD and Turkey's water management is well-founded.

This study aims to discuss all relevant aspects of Turkey's water management setting vis á vis the WFD requirements. In this way, it will try to contribute to the existing literature via presenting a comprehensive study on Turkey and WFD. Besides, the second contribution to the existing literature will be based on its approach and hypothesis. This dissertation does not take the "water management" as a unitary

¹¹⁹ For instance, see Özden Bilen, "A Hydropolitical Assessment of the European Union's Water Policies", in *Stratejik Analiz*, December 2006.

entity to be discussed; on the contrary it disaggregates Turkey's water management into three interrelated dimensions: legal discourses, institutions, policy networks. It is thought that the changes that WFD will bring to Turkey's water management will considerably vary according to the dimension concerned. The recent experiences, which will be elaborated in the relevant chapters, indicate this trend. For instance, the transposition of water related *acquis* is being realized with a considerable pace. Quite a number of EU Directives have been incorporated into Turkish legislation before the negotiations on Environmental Chapter began. Therefore, it is hypothesized that an analysis of changes to be witnessed in each dimension will reveal different degrees of change. In sum, the second contribution of this dissertation to the existing literature will be associated with its approach making "water management" as a construct build on three pillars and with its hypothesis stating that whilst legal discourses and policy networks are more prone to change in the face of WFD requirements; changes in institutions, governing institutionalized practices will be more gradual and less tangible.

1.5. Research Design

1.5.1 Methodology

The general methodology for the dissertation comprises a combination of qualitative and quantitative methods. In this sense, going through relevant official texts, books, articles, news from various news agencies is the main way of acquiring data. Furthermore, interviews are other important primary sources to study. Official documents, news from reliable news agencies and interviews are three categories of primary sources. Through in-depth analysis of these texts, interpretations will be made. As an important part of the dissertation, theoretical works are also studied. In this regard, major books and articles articulating relevant theoretical concepts are examined.

Throughout the research, primary sources such as the WFD text, the CIS document, Guidance Documents, and relevant adopted texts by the EU official organs, including the European Parliament, the European Commission, the Council of ministers, and

the European Councils, newsletters disseminated by the EU, and reports prepared by EU officials are examined on a regular basis. The “Europa” web site¹²⁰, the official web site of the European Union and other relevant EU level web pages are continuously analyzed. Apart from studying on primary sources on European level, official documents from national sources are studied. Regular reports prepared by respective institutions of Member States are primary documents to go through. As the contributions from Member States are critically important for the timely and due implementation of the Directive, they are given considerable priority.

Furthermore, in order to grasp the rhetoric of Turkish water related legislation, relevant laws and by-laws have studied. It is perceived that priorities and goals of Turkish authorities are embedded in this legislation. In other words, studying through the legal texts one will be able to conceptualize on the following and similar questions: which water use is prioritized over other(s), how pricing instruments are utilized, how environmental concerns are understood, or what extent the public participation is envisaged in policy making processes. Therefore, studying the very wording of water related legislation will contribute to compare and contrast the prevailing legal rhetoric in Turkey with the requirements of the WFD. This part of the dissertation, thus, essentially employs the discourse analysis methodology focusing on the legal inscriptions.

To get a more complete view on Turkish position concerning the WFD, interviews with officials from the main institutions in Turkey are held.¹²¹ Also, important NGOs (WWF-Turkey and Environment Foundation of Turkey [“Türkiye Çevre Vakfı”]) which actively take part in the implementation of pilot projects in Turkey are visited. Besides, web site of the Ministry of Environment and Forestry, and the leading public agency entrusted with water resources development in water management,

¹²⁰ Europa web site is located at <http://www.europa.eu> .

¹²¹ Ayla Efeoğlu, DSİ (Ankara, December 2010); Hamza Özgüler, DSİ (Ankara, October 2008); Nermin Çiçek, MoEF (Ankara, April 2010); Erol Saner, General Directorate for EU Affairs (Ankara, March 2008); Nedim Yeşil, DSİ (Ankara, December 2010); Ebru Olgun, Environment Reference Laboratory (Ankara, May 2011).

namely DSİ, are visited. Also, with regards to the DSİ, interviews are realized with two former Director Generals of the organization.¹²² These interviews contributed the author by providing information on policies and practices of the organization.

A study trip to Brussels (Belgium) has been realized. The aim of this visit was to make in-depth interviews with the scholars, decision-makers, and representatives of the civil society to discuss the WFD processes. In this respect, several interviews are conducted with Commission staff in different DGs of the Commission. The role of the EU Commission in environmental issues, including water, is of utmost importance being the single initiator of legislation. It is also the case that, as being the “Guardian of the Treaties”, the Commission will conduct the follow-up work regarding WFD, will impose specific sanctions on Member States if and where necessary and Member States are obliged “to report” to the Commission.

The Turkish Permanent Delegation in Brussels was also visited to study the Turkish perspective as well as to learn more about what had been thus far done. An interview with Yavuz Çubukçu, Water Adviser for the Ministry of Foreign Affairs of Turkey at the Delegation of Turkey to the European Union in Brussels, provided valuable information on the transboundary aspects of Turkey’s water management policies.

In Brussels, relevant NGOs, including the WWF Bureau was visited as well, in order to get a perspective, possibly different from that of official institutions. To illustrate, Kristof Geeraerts a Policy Analyst on Environmental Governance from Institute for European Environmental Policy summarized the evolution of EU water policies and presented an overview on the preparatory stages of the WFD, which is quite long and intense. The main risk, according to Geerarets, lies in the fact that WFD is vague and gives too much room for maneuver for Member States. Thus, it will be up to Member States to genuinely develop their RBMP or not.¹²³ Sylvie Motard, Head of

¹²² Özden Bilen (Ankara, December 2009), and Doğan Altınbilek (Ankara, November 2010, May 2011).

¹²³ Kristof Geeraerts, Institute for European Environmental Policy, Policy Analyst on Environmental Governance, personal interview, Brussels, January 2008.

Office of Regional Office for Europe, Liaison Office to the European Union, the United Nations Environment Program has also been visited. Motard argued that UNEP, like the EU WFD, promotes Integrated Water Resources Management (IWRM). Hence, for Motard, the WFD is compatible with the IWRM paradigm.¹²⁴

In July 2007 an academic visit to the Netherlands was realized, too. Three interviews are conducted at TU-Delft, one with Bert Enserink, another one with Leon Hermans and one with Erik Mostert. Bert Enserink emphasized the importance of participation for successful implementation of the WFD. For Erik Mostert, too, participation is one of the keys for WFD. Mostert also stated that the WFD requires a great deal of research to be conducted. Leon Hermans referred to his study on Turkey in 2002 which had provided a list of problems regarding water management issues in Turkey.¹²⁵ Also an interview with Dave Huitema from Vrije Universitet, Amsterdam, was conducted. Dave Huitema concluded that there are significant “gaps” and “vagueness” in the Directive, which will wait for legal cases to be resolved at the ECJ level.

Finally, in order to get an insider look to water management at the regional and local levels, an academic visit to DSİ’s XI. Directorate General, which is situated in Edirne was realized. A number of interviews have been held with significant personnel in different DSİ branches, including Project and Construction, Operation and Maintenance, Groundwaters and Geotechnic, Investigation and Planning Department (Etüd-Plan), Planning, and Laboratory. The center established for Early Warning system concerning flood control in the Meriç River was also visited.

All these interviews provided important information, insight and guidance for further research. With these interviews, a number of different perspectives on the WFD and WFD-Turkey relations are recognized. While the official European perspective

¹²⁴ Sylvie Motard, Head of Office, Regional Office for Europe, Liaison Office to the European Union, the United Nations Environment Program, personal interview, Brussels, January 2008.

¹²⁵ For details of this list, see Halil Agah and Çağrı Muluk, *Su Çerçeve Direktifi Uygulaması Projesi Birinci Bölgesel Çalıştay Raporu*, 3 September 2002, Aydın.

demonstrates a full commitment to the WFD¹²⁶, the academic circles draw attention to loopholes in the Directive. Interview in the DG XI, Edirne provided part of the necessary information with regards to day-to-day functioning of DSİ, the major water resources development agency in Turkey. These interviews also indicated the strengths (e.g. improvement in flood management, irrigation systems, increasing transboundary cooperation in flood control, etc.) and weaknesses (e.g. insufficient criteria and range of network for monitoring, lack of full cost-recovery, limited public participation in decision making procedures) of current water management practices. It is also perceived from particular interviews (with Erol Saner, Nermin Çiçek and Yavuz Çubukçu) that Turkey remains reluctant to fully harmonize with the WFD unless it obtains a “clear perspective” for membership. As a matter of fact, the recent official Ministry of Foreign Affairs view confirms this.¹²⁷ These interviews have also contributed to the development of the methodology of this thesis by shedding light on the fact that taking Turkey’s water management as unitary is not analytically fruitful, particularly when the multi-dimensional requirements of the WFD are considered.

With regards to the quantitative side of the methodology of the thesis, visual representations of policy networks of Turkey’s water management will be provided. That is to say, the interrelationships among institutions involved in water management issues will be shown through utilization of diagrams prepared by a computer program which is designed specifically for this purpose (UCINET)¹²⁸.

¹²⁶ Helmut Bloech, for instance, maintained “All of the time schedules and objectives of the WFD are realistic and sound, from the perspective of the Commission.” (Helmut Bloech, European Commission, DG Environment, Water and Marine Unit, personal interview, Brussels, January 2008).

¹²⁷ See <http://www.mfa.gov.tr/avrupa-birligi-ile-su-konusu-tr.mfa>, accessed on 31 January 2011.

¹²⁸ UCINET is computer software designed to aid researchers in their studies through enabling visualizations of networks. UCINET “allows for the computational aspects of analysis, including calculating various measures (e.g. centrality, cohesion, brokerage) among others, as well as hypothesis testing” (Dan Halgin, “An Introduction to UCINET and NetDraw”, powerpoint presentation, 2008 *NIPS UCINET&NetDraw Workshop*). For details, see www.ucinet.com. The author has learned how to use the UCINET during his study (November 2008-July 2009) at the University of California, Davis, USA.

The diagrams were preceded by tables, which are aimed to list the roles of different actors involved in water management with regards to specific issue areas. The preparatory works with regards to these tables were done through research on relevant documents listing the responsibilities and duties of involved institutions. Following this, interviews are used in order to double check the correctness of the data. These data mainly included the roles of institutions and connections among these institutions via their respective roles.

In doing so, basically, the water management in Turkey was disaggregated into more specific issue areas (e.g. participation, pricing, ground water etc.). Next, significant actors shaping and practicing water management are determined. These actors include central governmental institutions and their provincial or regional directorates, such as DSİ, EİEİ, Ministry of Environment and Forestry, Ministry of Agriculture and Rural Affairs, Bank of Provinces, Special Provincial Administrations etc.; local authorities such as village heads, municipalities, and non-governmental organizations. Next, reading through legal texts (laws, by-laws etc.) which define the duties and responsibilities of these actors (except NGOs), as well as asking to competent and knowledgeable people such as high rank officials in DSİ and MoEF in order, tables are prepared with correct data. Finally, with the assistance of a computer program, these tables are converted into diagrams which enable the author to analyze and interpret the nature of and change in interconnections among institutions involved in different aspects of water management. Several tables and resultant diagrams are arbitrarily prepared for different points in time which makes it easier to hypothesize on the continuities and changes in Turkey's water management policy networks. This information will also provide critical hints about how Turkey's water management setting will be affected by the requirement of the WFD.

In order to test this, taking the Büyük Menderes River Basin platform (which was a product of a pilot project for the WFD implementation in Turkey) as a model, functions are determined. Although the final outlook of the water management after full implementation of the WFD in Turkey could differ from the Büyük Menderes model, still there is a significant relevance of the model as it took the river basin as

the main unit, as required by the WFD, and adopted a participatory approach letting all stakeholders have their say in the policy making and implementation process. In short, Büyük Menderes platform is a relevant model for this study, particularly with respect to functions that actors need to perform. It is prepared in line with the WFD principles and guidelines, and with a broad participation of governmental and non-governmental institutions, ensuring a wide consensus.

1.5.2. Formation and Sequence of Chapters

The Water Framework Directive (WFD) of the European Union (EU) has come into force on December 22, 2000. Its main goal is to protect and enhance aquatic ecosystems. Water bodies all over Europe should have a “good status” by 2015. The WFD is an EC Directive (See Chapter 4) consisting of 26 legally binding articles and 53 recitals which are not legally binding. Beginning from its inception, the WFD is said to have the mandate to alter the way water is managed through Europe.¹²⁹

Turkey aims to join the European Union in a foreseeable future. Therefore, it has to adopt and implement the Union’s legislation, an important section of which is the WFD.¹³⁰ It has been declared a “candidate country” in December 1999 and, in March 2005, negotiations for membership has begun.

Within this context, the main problem of the dissertation consist of the challenges that Turkey face in the context of WFD harmonization. An analysis of these challenges necessitates a discussion of two issues. First, it requires a discussion of water management in Turkey, and second, it requires a discussion of the WFD. Following these discussions, an evaluation of the steps that have taken by Turkey in the WFD context should be made. These analyses will provide insights about the

¹²⁹ See for instance, <http://www.swanireland.ie/the-water-framework-directive/>, accessed on 29.03.2011.

¹³⁰ In total, there are 22 water related Directives within the EU *acquis*. Details about these will be mentioned in relevant sections.

further implementation of the WFD in Turkey. Within this framework, the formation and the sequence of dissertation chapters will be as follows.

It is argued that a short view of the history of European environmental *acquis* could be useful. This is basically because of the fact that, from the very early stages onwards, the issue of water has been taken in an environmental context.¹³¹ In this respect, the third Chapter will discuss the evolution of EU environmental with a historical perspective. Therefore, bearing in mind that the environmental policy is a relatively recent EU policy area, and that environmental protection was not initially mentioned in the Treaty of Rome (1958), the Chapter will begin its discussion through series of European Environmental Action Plans (EAP) which was firstly launched in 1972. It was the Single European Act (1986) which marked the beginning of a more prominent role for environmental protection in EU policy-making, introducing the principal that environmental protection should be considered in all new Community legislation. The chapter (Chapter 2) will present an overview on important treaty changes which substantially expanded the EU's environmental policy (Maastricht-1992, and Amsterdam-1997).

Following the overview of developments in environmental *acquis* of the EU, the following Chapter (Chapter 3) will move on to discuss the growth of water related *acquis* as a subsection of the EU environmental legislation. In the literature, the water related EU *acquis* is evaluated in three subsequent "waves". The third wave represents the EU efforts to streamline prevailing water legislation which accumulated into a so-called "patchwork".¹³² The resultant WFD will be the main focus of this Chapter. The Chapter will begin analyzing the WFD from its drafting process and then continue to present and evaluate the propositions of the WFD and conclude its analysis through the developments in the implementation phase, which was still continuing as of late 2010.

¹³¹ Water related legislation in the EC/EU setting is part of the environmental legislation.

¹³² Marleen van Rijswijk, "European Water Law", unpublished paper, on file with author, p. 4.

Beginning from the fourth Chapter, the dissertation will begin to take the water management in Turkey as its major focus. In accordance with the general approach adopted in dissertation, Turkey's water management will be disaggregated into three pillars: discourses, institutions, and policy networks. As the legal texts provide the basis for the discourses prevailing in Turkey water management policy, they will be examined thoroughly (Chapter 4). In this framework, first, sources of law in Turkey's as well as general administrative structure in the country will be briefly visited. Second, beginning from the late Ottoman Empire era and continuing into the times of Republic, basic legal texts relevant to water management will be presented. Third, a list of all relevant legal texts will be given as a list. Fourth, in light of all the inscriptions hitherto laid down, basic characteristics of Turkish water law will be discussed.

In the fifth chapter, major institutions and their characteristics will be visited. This discussion will involve both hard and soft institutions. Within this context, fundamental institutional arrangements prevailing in Turkey's water management policy will be analyzed in light of the WFD requirements. These institutions include river basin management, pricing, monitoring, public participation and transboundary waters. All major actors involved in various components of water management in Turkey (hard institutions) will also be analyzed in this chapter, through examining their establishment laws, as well as other relevant laws, statutes, and by-laws. This analyses will comprise the backbone for a policy network analysis which will follow the discussion on institutions.

In the sixth chapter, policy network analyses will visualize how the centrality of certain actors decline, while some others rise in course of time; and how relations among actors are dynamically changing resultant of a number of domestic and international factors.

The seventh chapter will discuss the steps that have been taken by Turkey within the context of WFD harmonization. The declaration of Turkey as a candidate country, in December 1999, in the framework of Helsinki European Council, triggered a new

wave of changes in Turkey's water management policies. With Helsinki decision, the goal of EU membership of Turkey has been formalized by the EU. The status of Turkey vis á vis the European Union has been brought to a new level. Turkey, from then on, has to be bound to the EU with stronger links and with a more institutionalized setting. Accordingly, the EU prepared an "Accession Partnership" document which had been responded by preparation of a "National Program" by Turkey. Furthermore, the European Commission would begin to draft annual "Progress Reports"- as it does for each candidate country- in order to evaluate the current level of alignment with the EU *acquis*. All these documents have the function of being reference points in evaluation of the changes that have been undertaken by Turkey through the harmonization process.

Within the context defined by the Helsinki Summit, beginning from early 2000s, a number of steps have been taken by Turkey in order to facilitate the harmonization process with the EU Water Framework Directive and its related EU level legislation. All these efforts could be analyzed under three main headings. The first one is the "pilot projects" which includes projects supporting harmonization of a specific location (e.g. MATRA Project focusing on Büyük Menderes Basin), projects supported by a single country (the DEFRA-UK supported Project, namely "Restructuring of the Turkish Water Sector for the Implementation of EU Water Directives"), or those projects which are supported more than one country (Twinning Project, "Capacity Building Support to the Water Sector in Turkey").

The second category is the "legislation changes" specifically done in order to move Turkish water legislation closer that of the Union's. These include changes in existing legislation and enactments of new pieces of legislation. Between 2004 and 2007, a number of water related European Directives are transposed into the Turkish legislation. The adoption of a "framework law" will be one of the important steps in this area.

The third category could be the changes in official institutional structures in water management policy sector. It should, however, be crucially noted that the aims of

these changes are multidimensional and not limited only to harmonize with the EU water *acquis*. In other words, there are other reasons for this type of changes, they could be, for instance, socio-political, or economic, or both. Nevertheless, these changes have great impact in restructuring the Turkish water management framework. Also, as Turkey had already set an overarching goal of harmonizing with the EU *acquis*, the changes in institutional structures must therefore not be against, but for the realization of this aim. This is why the institutional changes that are been done after the adoption of the EU WFD should be analyzed within the framework of the steps taken by Turkey in its march towards getting in line with the aforementioned Directive.

The concluding Chapter will discuss the results reached throughout the dissertation. Restating the main hypothesis, it will provide a summary of the research questions, methodology and findings of the research which are studied in order to test the hypothesis.

CHAPTER 2

Development of an Environmental Policy in the EU

2.1. Introduction

Water has been largely part of the environmental legislation in the European Communities. This is due to the fact that, in most of Europe¹³³, the problem of quality of water is more critical compared with the “quantity” problem. Since the need for sufficient precipitation is not a serious matter, and negative externalities of industrial development are clearly seen in the increasing pollution of water, water in Europe is mainly considered within the environmental sphere of policy-making. In this regard, it is essential to take into consideration general trends in the evolution of environmental *acquis* in the EC/EU. This background will provide a firm basis for a more accurate view of developments in water policy in Europe.¹³⁴ The examination of the evolution of the EU environmental policies, thus, is a significant part of an analysis of the premises laid down in the WFD.

It is also important to note that the philosophy of European environmental policy usually coincides with, and shapes the development of worldwide environmental

¹³³ Notable exceptions are those Member States situated in the southern part of the continent such as Greece, Italy and Spain.

¹³⁴ It should be noted, however, that European water policy (as all areas of policy) is a product of a wide set of factors with different powers of influence. Therefore, it would be misleading to associate water policy solely with the environmental policy, or to overestimate the environmental concerns in formulation of water policies. In this respect, the section on the emergence and growth of the water policy will discuss all other relevant factors, shaping the policy concerned. All in all, the point that the water policies are regarded under the tutelage of the principles of the environmental *acquis* of the Union, concomitant to the fact that environmental concerns play a significant role in water policy making.

protection.¹³⁵ For instance, first appearance of formal environmental policy¹³⁶ coincided with the global outburst of the environmental issues in early 1970s. Soon after the global meeting in Stockholm, Member States' representatives gathered in Paris in October 1972 and initiated "first common environmental policy frame" at European level.¹³⁷ Another example is the affirmation of a sustainable development strategy in the EU as a response to World Summit on Sustainable Development (WSSD), also known as the Johannesburg Conference, during 26 August and 4 September 2002. The paradigm shifts in water management policies at global level run parallel with the path of development of EU's water policy, particularly the WFD. The water policy of the EU is encapsulated by the environmental policy of the EU. It would be argued that the beginning of a water management policy in the EU broadly coincided with the water management paradigm shift in the North from a phase dominated by ideas of industrial modernity and characterized by "hydraulic mission", into a phase of reflexive modernity, where an increase in global risk awareness is witnessed. This Chapter is a presentation of the development European environmental policies, out of where a separate water policy then gradually emerged. The Chapter will also discuss the variations of the impact of European environmental policies on national environmental policies. This analysis provides an insight upon how the impact of WFD on different facets of Turkey's water policy is built upon.

To begin with, the European environmental policy has been set up and governed by a number of rules. These technicalities of a European environmental policy are analyzed in particular with a focus on the legal bases of such a policy. This will be followed by an overview of major steps in European environmental policy in historical perspective. At the beginning, the environmental policies in the EU

¹³⁵ Cong Fu, "The Evolution and Transformation of European Environmental Policy and Law", in *Asia Europe Journal*, Vol. 6, 2008, p. 246.

¹³⁶ Note that in late 1960s, despite the lack of a formal environmental policy in the European setting, the European Economic Community had began to set down environmental standards. These include Directive 67/548/EEC (Classification, Packaging, and Labelling of Dangerous Preparations), Directive 70/157/EEC (Permissible Sound Level and Exhaust System of Motor Vehicles).

¹³⁷ Cong Fu, *op. cit.*

developed out of the negative externalities of the economic growth; in time the “environment” gained a status of its own, gradually strengthening its position. That is to say, the historical trajectory of European environmental policy reveals a gradual process of empowerment of environment in European political setting. The extent of this empowerment has been determined by the changes in the founding Treaties, and the rules enshrined in Directives, Regulations and Decisions.

2.2. Legal Basis for European Environmental Policy

The European Community has been entrusted with a legal power to develop environmental policies. The legal basis for European environmental policies is build upon specific Articles in the Treaty¹³⁸. The status of environment gained an increasing prominence in subsequent Treaties, detailed provisions on environment has been adopted and decision-making procedures matured. The “attributed powers” principle in Article 5 (ex Article 3b¹³⁹) of the Treaty draws the boundaries of the European mandate in a given area. It reads “[t]he Community shall act within the limits of the powers conferred upon it by this Treaty and of the objectives assigned to it therein”. The principle of subsidiarity¹⁴⁰ in Article 5 (ex Article 3b) also conditions European action on environment. It reads “[i]n areas which do not fall within its exclusive competence, the Community shall take action, in accordance with the principle of subsidiarity ...” The principle of subsidiarity is relevant to the discussions of the extent and limit of the impact of European environmental policy on national policies of environment. Regarding the environmental policy, “Co-decision procedure” applies as required by Article 175(1) of the Treaty. As a principle, it is in their rights of Member States to adopt more stringent environmental

¹³⁸ European Communities, “Consolidated Version of the Treaty on the European Union and of the Treaty Establishing the European Community”, *Official Journal C 321E of 29 December 2006*. Also available online at <http://eur-lex.europa.eu/en/treaties/index.htm>, accessed on 22.03.2011.

¹³⁹ The Amsterdam Treaty extensively revised and renumbered the Articles in the Treaty on the European Union. Where relevant, the old Article numbers are given in brackets.

¹⁴⁰ Subsidiarity means, if otherwise is decided through a European Treaty, all actions are to be made at the lowest appropriate level and as closely as possible to the citizen. See http://europa.eu/legislation_summaries/glossary/subsidiarity_en.htm, accessed on 22.03.2011.

measures that those adopted by the Community. This is covered by Article 176 and Articles 95.4 and 95.5 of the Treaty:

Article 176 (ex Article 130t) – “The protective measures adopted pursuant to Article 175 shall not prevent any Member State from maintaining or introducing more stringent protective measures. Such measures must be compatible with this Treaty. They shall be notified to the Commission”.

Article 95.4 (ex Article 100a(4)) – “if, after the adoption by the Council or by the Commission of a harmonization measure, a Member State deems it necessary to maintain national provisions on grounds of major needs referred to in Article 30, or relating to the protection of the environment or the working environment, it shall notify the Commission of these provisions as well as the grounds for maintaining them”.

Article 95.5 – “Moreover, without prejudice to [Article 95.4] if, after the adoption by the Council or by the Commission of a harmonization measure, a Member State deems it necessary to introduce national provisions based on new scientific evidence relating to the protection of the environment or the working environment on grounds of a problem specific to that Member State arising after the adoption of the harmonization measure, it shall notify the Commission of the envisaged provisions as well as the grounds for introducing them”.

Finally, for Member States, with an aim of “promoting sustainable development”, there is the requirement of integration of the environmental protection requirements into both definition and implementation of the Community policies and activities which are listed in Article 3.¹⁴¹

All in all, despite this complex structure, there are a number of principles of the environment policy of the EU. These principles, which would govern the Community policy on the environment across-the-board, are summarized in the Treaty (Article 174.2). These could be listed as follows: i) precautionary principle, ii) rectifying at

¹⁴¹ Article 6 (European Communities, “Consolidated Version of the Treaty on the European Union and of the Treaty Establishing the European Community”, *Official Journal C 321E of 29 December 2006*. Also available online at <http://eur-lex.europa.eu/en/treaties/index.htm>, accessed on 22.03.2011).

source, iii) polluter should pay iv) integration. The adoption of these principles, along with certain measures and instruments to implement these measures, emerged through consecutive changes in the Treaties.

There are three types of binding legislation in the EU which carry similarities and differences. (See Table 1.)

Table 1. Three forms of binding EU legislation

Directives	Regulations	Decisions
1. Enter into force on the date specified in the directive, or on the 20 th day after publication in the Official Journal. This then obligates Member States to approximate.	1. Enter into force on the date specified in the regulation, or on the 20 th day after publication in the Official Journal.	1. Enter into force upon notification to the party to whom they are addressed.
2. Directives are the most frequently used instrument in environmental law.	2. Regulations are used when a unified system is required: funds, institutions, EU voluntary schemes such as eco-label; product or trade regulation, such as endangered species, transport of waste.	2. Decisions are used to specify detailed administrative requirements.
3. Member States must adopt laws, regulations and procedures to give effect to the directive by the deadline for transposition.	3. Member States must have in place the necessary institutions and structures for implementation. They must repeal conflicting national provisions.	3. Decisions are focused in scope and application.

Table 2. Three forms of binding EU legislation continued

<p>4. Directives come into effect on the date prescribed as the deadline for transposition, unless other date(s) are indicated in the directive for specific instances. May have direct effect if the Member State fails to transpose.</p>	<p>4. Regulations are of general application on the date they come into force.</p>	<p>4. Decisions are binding on the parties to whom they are addressed on the date they come into force.</p>
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Source: http://eur-lex.europa.eu/en/droit_communaire/droit_communaire.htm, accessed on 22 March 2011.

There are basically two types of EU instruments which are non-binding. These are recommendations and opinion. They are not binding; therefore they do not have legal affect. However, they have a subtle affect via sometimes influencing the interpretation of the legislation of the Community.

With regards to all these legislation presented above, Member States (as well as candidate and accessing countries) are required to get into compliance with them via a process called as approximation. Approximation is described as a unique obligation of membership of the EU¹⁴². It is an obligation to align national laws, regulations, rules and procedures in order to give effect to the entire body of EU law contained in the *acquis communautaire*. There are three key steps to approximation:

Transposition: The requirements of EU legislation must be fully incorporated into national legislation. This will require adoption or amendment to national laws, regulations, rules and procedures.¹⁴³

¹⁴² See, European Commission, *Guide to the Approximation of European Union Environmental Legislation*, Brussels, 1997.

¹⁴³ http://europa.eu/legislation_summaries/institutional_affairs/decisionmaking_process/114527_en.htm, accessed on 22.03.2011.

Implementation: It is also known as “Practical Application”. Implementation is the incorporation of EU law by the competent authority/ies into individual decisions. It includes providing the infrastructure, budgets and provisions needed in order to enable the competent authorities to perform their obligations under EU law and to take appropriate decisions.¹⁴⁴

Enforcement: The necessary controls and penalties must be provided to ensure full and proper compliance with the law.¹⁴⁵

After presenting some details on the technicalities of the environmental legislation and policy in the European Union, next section will present a discussion of the European environmental policy from a historical perspective.

2.3. Development of European Environmental Policies: An Historical Overview

Environmental policy is a relatively recent EU policy area. Environmental protection was not initially mentioned in the Treaty of Rome (1958)¹⁴⁶ directly. The first pieces of so-called environmental legislation were adopted in the 1960s. Further legislation was adopted in the 1970s as a result of the formulation of EEC Environmental Action Programs (EAPs). The Single European Act (SEA) of 1987 introduced the term “environment” to the Treaty. The SEA marked the beginning of a more prominent role for environmental protection in EU policy-making, introducing the principle that environmental protection should be considered in all new Community legislation.¹⁴⁷ However, environmental protection only gained EU policy status in

¹⁴⁴ European Communities, *Convergence with EU environmental legislation in Eastern Europe, Caucasus and Central Asia: a Guide*, Bradford, Great Britain, 2003, p. 9.

¹⁴⁵ *Ibid.*, p. 10.

¹⁴⁶ There was no mentioning of the word “environment” in the Treaty of Rome, and the word “water” is used once, in relation to transport (“waterway”) in Article 84.

¹⁴⁷ The SEA was also seen by some as a turning point in environmental policies of the European Union, since it gave a separate Chapter on environmental protection in the Treaty.

1993 with the Maastricht Treaty¹⁴⁸, which states that EU environmental policies must aim for greater protection (based on the principle of preventive action). In sum, the EAPs and Treaty amendments could be seen as two types of steps in environmental policy alterations in the EU setting.

By early 1970s, environmental issues became salient for most of the countries' political agendas. Within a context where the environmental degradation became more visible through the increased use of chemicals and industrial production processes¹⁴⁹, Member States of the EU began to adopt environmental measures. However, this caused fears concerning the possibility that trade could be distorted as a result of these national policy differences.¹⁵⁰ Therefore, it has often been concluded that the European environmental policy has been grown as a “flanking policy” to trade. First having been emerged out of a need to establish a common market with standardized instruments¹⁵¹, environmental protection in the EU has now become a “well-established” policy. Apart from the need to facilitate trade, there are other reasons for creation of an environment policy in the EU. One of this is the increasing number of environmental catastrophes (e.g. acidification of Scandinavian lakes, air pollution across Europe, and decline in fish stocks) during 1960s. This has contributed to the politicization of the issues of environment, as well as its cross-

¹⁴⁸ Article 174 of the Maastricht Treaty.

¹⁴⁹ Nevertheless, it should be noted that the elevated environmental awareness in Europe is not only attributable to the visible impacts of environmental degradation. This is because, in some other places in the world, where environmental degradation went unabated, there was no such awareness. The idea that support for environmental protection is simply a function of environmental degradation is contested by Ronald Inglehart. Inglehart claimed that “generations socialized in affluent liberal democratic societies develop ‘postmaterialist’ values (such as a desire to protect the environment) once their basic material needs are satisfied”, quoted in Rüdiger K. W. Würzel, *Environmental Policy-Making in Britain, Germany and the European Union: The Europeanization of Air and water Pollution Control*, Manchester University Press, Manchester, 2002, p. 14. See, Ronald Inglehart, “The Silent Revolution in Europe: Intergenerational Change in Post-industrial Societies”, in *American Political Science Review*, Vol. 65, No. 4, December 1971, pp. 991-1017.

¹⁵⁰ Pamela M. Barnes and Ian G. Barnes, *Environmental Policy in the European Union*, Edward Elgar Publishing Limited (EE), Cheltenham, 1999, p. 1.

¹⁵¹ European Environmental Bureau (EEB), *EU Environmental Policy Handbook: A Critical analysis of EU Environmental Legislation*, edited by Stefan Scheuer, 2006, p. 8.

border nature.¹⁵² Water issues *per se* contributed to the discussions on environment. Acute quality problems in marine and freshwater are also among the critical reasons for an environmental policy in the EU.¹⁵³ Another factor mentioned in the literature for establishment of an environment policy in the EU is the goal of improving conditions of living of European people. Article 2 of the Treaty on European Union (TEU or “Maastricht Treaty”, 1992) makes explicit reference to the goal of “continual improvement of living and employment conditions”. As interpreted by Community organizations like the Commission and the Parliament, the achievement of this goal implies a qualitative, along with quantitative, rise in living conditions.¹⁵⁴

The history of the environmental policy in the EU is analyzed in the literature via dividing it into successive phases. According to one prevailing view, the development of EU environmental policy approximately experienced three stages of development which could be listed as a “forming” stage, “establishing” stage and a “developing” stage. Knill and Liefferink provide another exemplar study of this model. According to them, for the first phase, which lasted between 1972 and 1987, the main motivation behind environmental policy was trade, namely the creation of Common Market. In the second phase, 1987-1992, European environmental policy witnessed further codification (via Single European Act) and consolidation. One of the significant achievements of this phase was said to be the introduction of Qualified Majority Voting (QMV) for environmental measures associated with the Common Market. The third phase (1992-ongoing), as understood by Knill and Liefferink, has witnessed emergence of two opposite trends. One is related with the legal aspects, which mainly comprised Treaty changes (Maastricht, and Amsterdam Treaties) and establishment of European Environment Agency (EEA) in 1994. The

¹⁵² Christoph Knill and Duncan Liefferink, *Environmental Politics in the European Union: Policy-Making, Implementation and Patterns of Multi-level Governance*, Manchester University Press, Manchester and New York, 2007, p. 4.

¹⁵³ David Benson and Andrew Jordan, “Exploring the Scale Dimensions of Water Governance: A Comparative Federalism Perspective on EU policy-making, *International conference on Adaptive and Integrated Water Management- CAIWA*, Basel, Switzerland, 2007, p. 4.

¹⁵⁴ Christoph Knill and Duncan Liefferink, *op. cit.*, p. 5.

second trend is the relative decline of environmental policy in the EU vis á vis other policy priorities. This continuing trend stands as one of the themes of focus for future studies on European environmental policy.¹⁵⁵ Persistence of high unemployment rates, slowing down of economic development throughout the continent, in the accompany of neoliberalism are listed as important factors for this trend. In this context, Member States' willingness to enact stricter environmental legislation which could run counter to their economic ends reduced. As a second category of reason, Knill and Liefferink mention the changing nature of European environmental legislation. Instead of definition of uniform limits, the Commission has increasingly begun to utilize "flexible and less harmonization-oriented" regulatory means, allowing Member States a certain degree of room to maneuver in the implementation processes.

According to another approach, the European environmental policy has passed through six stages: "an idealist start" (1973-1982), "towards the internal market" (1982-1987), "towards environmental policy integration" (1987-1992), "roll-back" (1992-1995), "the last wave of environmental regulation" (1997-2003), and "the 6th EAP and the thematic strategies".¹⁵⁶ The commonality in these approaches is that the EAPs and Treaty changes are taken into account in conjunction as to provide the basic reference points for analyses of the stages in environmental policy of the EU, and that despite the environmental policy in the EU evolved extensively, there remain some enduring issues to be resolved.

2.3.1. Environmental Action Programs

After the United Nations Conference on Environment in Stockholm in 1972 and growing public and scientific concerns on the "limits to growth", the Commission became active in initiating an original Community policy. On the basis of European

¹⁵⁵ *Ibid.*, pp. 24-25.

¹⁵⁶ See Christian Hey, "EU Environmental Policies: A short history of the policy strategies", in European Environmental Bureau (ed.), *op. cit.*, "Handbook..".

Council commitments in 1972 to establish a Community environmental policy¹⁵⁷, the first EAP was decided upon in November 1973¹⁵⁸. This program already established the argument that economic development, prosperity and the protection of the environment are mutually interdependent. It was argued, that “the protection of the environment belongs to the essential tasks of the Community”. Thus, environmental action by the Community began in 1972¹⁵⁹ with successive EAPs, based on a vertical and sectoral approach to ecological problems. EAPs are not binding in legal terms, yet they are significant in the sense that they indicate the political intentions of organs of European integration.¹⁶⁰ During this period, the Community adopted some 200 pieces of legislation, basically concerned with limiting pollution by introducing minimum standards, notably for waste management, water pollution and air pollution.

The First EAP, which was adopted by the Council on November 22, 1973, put emphasis on the “need for a comprehensive assessment of the impacts of other policies”¹⁶¹, which could have damaging effects. In this manner, it is argued that the First EAP embryonically contained many of the later ideas behind “sustainable development”.¹⁶² The steps proposed by the First EAP were modest, since the first EAP called for a gradual approach to defining environmental quality objectives.¹⁶³

¹⁵⁷ October 1972, Paris, France. For an analysis of the summit see Sevim Budak, *Avrupa Birliđi ve Türk Çevre Politikası: Avrupa Topluluđu'nun Çevre Politikası ve Türkiye'nin Uyum Sorunu*, Búke Yayınları, İstanbul, 2000, pp. 113-118.

¹⁵⁸ It should be noted that the First EAP was a joint declaration of the Council and representatives of Member States (“Erklärung-Declaration”). Subsequent EAPs, on the other hand, was a decision of the Council and representatives of Member States (“Ratentschliessung”). For details see Sevim Budak, *op. cit.*, p. 216.

¹⁵⁹ Soon after the UN Conference on Environment, also in 1972. This date is generally regarded as the inception of European environment policy.

¹⁶⁰ Sevim Budak, *op. cit.*, p.217.

¹⁶¹ Christian Hey, *op. cit.*, p. 19.

¹⁶² *Ibid.*

¹⁶³ *Ibid.*

On the other hand, according to some experts, the first EAP was also regarded as the first significant initiatives of European Community, representing an adoption of a strategy for reaching wide-ranging targets.¹⁶⁴ Water protection and waste treatment were the two main foci of the First EAP. However, hints for a sectoral approach were also recognizable, with special reference to agriculture and spatial planning.¹⁶⁵ The Second EAP (1977 - 1981) was basically a “follow up” to the first one, in terms of approach and objective. In line with this, the scope of the Council Decision on the Second EAP (May 17, 1977) demonstrates a similarity with the First EAP.¹⁶⁶ Yet, the Second EAP included actions on a greater range of problems.¹⁶⁷

As a practical approach, both the First and the Second EAPs (1973-1981) support the determination of quality values for water and air. Particularly, the quality objectives for drinking water were very strict necessitating strong policy intervention for their realization.¹⁶⁸

The implementation success of this first period of environmental policy making is in doubt. During the economic downturns, enthusiasm for policy-making at the European level decreased significantly. Even so, a number of directives¹⁶⁹, for water

¹⁶⁴J. Kodwo Bentil, “Environmental Quality Measures: Prevention is Better than Cure”, in *Journal of Planning and Environmental Law*, Vol. 638, 1980, pp. 638-639. Also see Sevim Budak, *op. cit.*, p. 225.

¹⁶⁵ Christian Hey, *op. cit.*

¹⁶⁶ Sevim Budak, *op. cit.*, p. 226.

¹⁶⁷ Christian Hey, *op. cit.*, p. 19.

¹⁶⁸ *Ibid.*

¹⁶⁹ Examples include “Council Directive 76/464/EEC of 4 May 1976 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community”, “Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds”, “Council Directive 67/548/EEC on the approximation of laws, by-laws and administrative provisions relating to the classification, packaging and labelling of dangerous substances”, “Council Directive 80/778/EEC relating to the quality of water intended for human consumption”, “Council Directive 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 waste in particular, were adopted during this period.¹⁷⁰ It was argued that, although the Second EAP appeared not to be a big step forward, it still contributed to adoption of an economic development model in Europe relying on quality, rather than quantity.¹⁷¹

The Third EAP (1982 - 1986) marks a notable change in policy approach, since it is more closely linked to the completion of the Internal Market than its predecessors. Stressing the potential risks and benefits of environmental policies to the Internal Market, the Third EAP made issue linkage between the internal market and environmental policies a key focus for programming and activities. In this framework, environmental emissions standards had needed to be harmonized to avoid distortions to industry competitiveness and product regulations had to be harmonized to avoid non-tariff barriers caused by variable national product norms.¹⁷²

In terms of the practicalities, there was change as well. The Third EAP shifted from a quality approach to an emission-oriented approach, via proposing formulations of emission limit values for stationary, as well as mobile, sources. Referring to the first global strategy for “Sustainable Development” formulated by the IUCN in 1980, the Third EAP demonstrated a positive attitude towards global policy-making on environmental issues. Among other, waste avoidance, efficient resource use and integrated environmental technologies were some of the objectives of the third EAP.¹⁷³

The Single European Act, in 1987, marked some important changes for environment policy in the EU. First, an explicit legal basis is provided for environment policy. In doing so, a separate Chapter in the Treaty is devoted for the Environment.

¹⁷⁰ Christian Hey, *op. cit.*

¹⁷¹ Sevim Budak, *op. cit.*, p. 230.

¹⁷² Christian Hey, *op. cit.*, pp. 19-20.

¹⁷³ *Ibid.*

Additionally, the goals¹⁷⁴ and principles¹⁷⁵ are defined for the first time in the Treaty.¹⁷⁶ SEA also added the subsidiarity principle for environment policy into the Treaty. Besides, SEA introduced the co-operation procedure¹⁷⁷. With the co-operation procedure the role of the European Parliament is increased with a right to suspensory veto. With these features, SEA is argued to have laid down the legal foundations of an environment policy in the EU and have been a trigger for further legal and institutional reforms in EU environment policy in the 1990s.¹⁷⁸

The Fourth EAP (1987-1992) marks a further change in the approach to environmental policy. The shortcomings of the earlier approaches (i.e. quality policy, emissions orientation) were recognized. As the cases of long range transboundary pollution showed, an approach which relied entirely on environmental quality objectives was unable to find satisfactory solutions to some environmental problems. Likewise, it was acknowledged that, an approach which focused on emission controls for stationary sources was unlikely to achieve certain ecosystem or health based quality objectives. Thus, the Fourth EAP, instead, proposed a more integrated approach. For the first time, environmental protection was not perceived as an additive, but rather as an integrated activity within the whole production process.

¹⁷⁴ Article 174.1 of the Treaty lists three goals for EU Environment Policy: i) preserve, protect and improve the quality of the environment; ii) protect human health; iii) prudent and rational utilization of natural resources.

¹⁷⁵ Article 174.2 laid down major principles of the EU Environment Policy: i) the precautionary principle, meaning that environmental action should be realized before damage happens, indeed, in order to prevent damage; ii) rectifying at source, meaning that environmental damage should be dealt with at the source it originates; iii) polluter-pays principle, meaning that persons or organizations who pollute the environment should bear all costs associated with the prevention, removal of and/or compensation for that pollution; iv) integration, meaning that environmental policy and actions are to be incorporated other relevant policies of the EU.

¹⁷⁶ Christoph Knill and Duncan Liefferink, *op. cit.*, p. 14.

¹⁷⁷ Before SEA, the “consultation procedure” prevailed. With the consultation procedure, the role of the European Parliament was limited, and the primary decision-making authority was the Council of Ministers.

¹⁷⁸ Christoph Knill and Duncan Liefferink, *op. cit.*, p. 20.

Part of the integrated approach was to reduce energy or material inputs and to close cycles, so that waste streams could be minimized.¹⁷⁹

Furthermore, pollution control was to systematically control all environmental media (water, air and soil) and involve an evaluation of the problem causing substances. Therefore the Fourth EAP started to discuss a “sectoral approach”, analyzing the impact of strategic economic sectors on the environment. For the first time ever, the evaluation of new, incentive based instruments, such as taxes, subsidies or tradable emission permits was announced.¹⁸⁰

The ideas of the Fourth EAP (integrated approach, sector analysis, new instruments) were further elaborated in the following years. This change is often characterized as a “paradigmatic change”, a change from “trade orientation” to a “sustainability frame”. Environmental policy is less perceived as an additive policy and more as an integrated part of economic decision-making. It is argued that “sustainable development gradually became a normative reference for environmental policy in the EU from the beginning of the 1990s onwards”.¹⁸¹

The Fifth Community Action Program (1992-1999) on the Environment "Towards Sustainability"¹⁸² established the principles of a European strategy of voluntary action for the period 1992-2000 and marked the beginning of a "horizontal" Community approach which would take account of all the causes of pollution (industry, energy, tourism, transport, agriculture, etc.).¹⁸³ Therefore, having regard

¹⁷⁹ Christian Hey, *op. cit.*, p. 21.

¹⁸⁰ *Ibid.*

¹⁸¹ *Ibid.*

¹⁸² It should be noted that the emphasis on the “sustainability” is in line with the United Nations’ “Rio Declaration” and “Agenda 21”, which was adopted in July 1992 in Rio de Janeiro, Brazil.

¹⁸³ European Communities, *Towards Sustainability: the European Community Program of policy and action in relation to the environment and sustainable development*, Brussels, 15.12.1992.

the current environmental situation in Europe, which steadily deteriorated despite the existence of previous four EAPs and relevant measures, the Fifth EAP proposed some new policy elements.¹⁸⁴

This across-the-board approach to environmental policy was confirmed by the Commission in the wake of its 1998 Communication on integrating the environment into European Union policies and by the Vienna European Council (11-12 December 1998). The Community institutions have become obliged to take account of environmental considerations in all their other policies. Since then, this obligation has been taken into account in various Community acts, particularly in the fields of employment, energy, agriculture, development cooperation, single market, industry, fisheries, economic policy and transport.¹⁸⁵

Following the EU's adoption of framework rules for environmental protection, and a financial instrument, namely the LIFE program, for co-funding environmental measures and implementing sector-specific EU policies and laws; important new technical instruments have gradually been introduced: eco-labelling, the system for environmental impact assessment, and inspection criteria for Member States.¹⁸⁶ A

¹⁸⁴ For instance, some role is given to local authorities, new fiscal measures are discussed (e.g. Carbondioxide Tax); and establishment of new funds and programs like LIFE Program, structural funds are also discussed.

¹⁸⁵ European Commission, Communication from the Commission to the European Council: Partnership for Integration-A Strategy for Integrating Environment into EU Policies, Cardiff, June 1998.

¹⁸⁶ The "ecolabel" is a "voluntary scheme, established in 1992 to encourage businesses to market products and services that are kinder to the environment" (http://ec.europa.eu/environment/ecolabel/about_ecolabel/what_is_ecolabel_en.htm). "Environmental assessment is a procedure on the basis of Directive 85/337/EEC that ensures that the environmental implications of decisions are taken into account before the decisions are made" (<http://ec.europa.eu/environment/eia/home.htm>). "In their respective Resolutions of 14 May 1997 [EP 259.215/63] and 7 October 1997 [Official Journal C 321 of 22.10.1997], the European Parliament and the Council stressed the need to fix criteria and/or minimum guidelines for (environmental) inspections performed in Member States and possible ways to enable Member States to supervise their implementation." Paratheses added (http://europa.eu/legislation_summaries/environment/general_provisions/l28080_en.htm).

communication on the European strategy for sustainable development was approved in May 2001. It sets out the long-term objectives for sustainable development and essentially concerns climate change, transport, health and natural resources. The need for Community action on “liability for damage” caused to the environment and on making good such damage has been gaining ground since the adoption of the White Paper on environmental liability in February 2000. In short, 1990s and early 2000s witnessed introduction of new programs, expansion of instruments and legislation. Meanwhile the changes in the Treaties expanded the tasks of EU environment policy to a certain degree throughout the 1990s. First the Maastricht Treaty, which also founded the European Union, then Amsterdam Treaty brought about notable changes to environment policy in the EU. Before the Maastricht Treaty, with regards to Article 175, the article laying down the legal basis for authorization for the Community, the decision-making was to be done on the basis of unanimity. Treaty of Maastricht introduced Qualified Majority Voting (QMV) for decisions to be taken on the basis of Article 175.¹⁸⁷

The Amsterdam Treaty (1999) reinforced the status of environment by directly linking it to the tasks of the Community which are defined at the beginning of the Treaty, in the Article 3. Amsterdam Treaty provided a more solid foundation for the concept of sustainable development. With the Amsterdam Treaty, the sustainable development became a general guideline for all policy areas in the EU. Also, a high degree of environmental protection is prioritized in the Treaty.

Finally, the co-decision procedure was introduced for most of the cases where previously co-operation procedure had applied. This means the further strengthening of the European Parliament (EP). With co-decision procedure, the EP has now become an equal partner to the Council of Ministers through a right to veto¹⁸⁸. The

¹⁸⁷ Note that Article 95 of the Treaty, which regulates the actions of Community (including of environmental actions) pertaining to the Common Market had before introduced the QMV. This time, the environmental measures, independent of the Common Market issues, are to be decided by QMV.

¹⁸⁸ Meaning that the amendment proposals of the EP can not be refused by the Council of Ministers. In case of disagreement, a conciliation committee is to be established, comprising representatives from the Council of ministers and the EP. At the end, a compromised text emerges out of the

strengthening of the EP through Maastricht and especially in Amsterdam Treaty has created important implications for EU environment policy. First, it is expected that stricter environmental legislation would be adopted, given the pro-environmentalist orientation of the Parliament.¹⁸⁹

In March 2000 the European Council in Lisbon laid the basis for full integration of environmental concerns and other EU policies. Alongside the economic and social aspects to be considered during the policy-making process, environmental protection is an essential component of the EU economic development strategy laid down in Lisbon.

The Sixth Action Program for the Environment set out the priorities for the European Community up to 2010. Four areas are highlighted: climate change, nature and biodiversity, environment and health and the management of natural resources and waste. Measures to achieve these priorities are outlined: improving the application of environmental legislation, working together with the market and citizens and ensuring that other Community policies take greater account of environmental considerations. An innovation which is worth mentioning is the integrated product policy. This aims to develop a more ecological product market by making products more environmentally sustainable throughout their life cycle. The main objectives of EU environment policy, which are also outlined in the Sixth Environment Action Program are: harmonizing and drafting laws for the preservation of the environment, nature and biodiversity; reducing polluting gases; safeguarding human health against chemical agents and other artificial substances; facilitating rational management of natural resources, while preventing waste and encouraging recycling activities;

conciliation committee meetings, which should be accepted or rejected by the EP and the Council of Ministers. Note that the WFD is among one of the first legislation which was adopted out of such a procedure.

¹⁸⁹ As Knill and Liefferink argued, the European Parliament always requested from the Commission to be active in environmental issues, since the end of 1960s. Besides, through its opinions, the EP constantly called for stricter and more extensive environmental legislation. Christoph Knill and Duncan Liefferink, *op. cit.*, p. 65.

favoring sustainable development, including in EU applicant countries; and developing international environmental cooperation.¹⁹⁰

All these EAPs not only give clear signals of the EU's environmental policy objectives, but also suggest and indicate strategic tools for the realization of those objectives. They serve as a source of proposals and a base for the adoption of subsequent legislation, quality and technical standards, for the implementation of the adopted legislation by the application of institutional measures, and for enforcement. The EAPs set out priorities for action over a limited time period, address selected targeted groups and offer a wide range of instruments to realize the expressed political objectives and targets.

Some further changes in the Treaty occurred by Nice (2001) and Lisbon (2009) Treaties. The affect of these treaties are argued to be very limited.¹⁹¹ As already known, the attempt for a comprehensive Constitutional Treaty failed in 2005 because of the rejections in referenda in first France and later in the Netherlands.

Through the 40 years of development “from zero to bloom”¹⁹², the environmental policy in the EU has been argued to become a “respectable and sometimes complex body of legislation.”¹⁹³ All in all, with regards to current situation of and trends in EU environment policy, there are several points which should be noted. First, the salience of nation-state level continues. This is not only important considering their roles in decisions of future environmental legislation, but also important for the resolution or persistence on the implementation problem. It also signifies the

¹⁹⁰ European Communities, *Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Program*, OJ L 242.

¹⁹¹ For the Nice Treaty, see Christoph Knill and Duncan Liefferink, *op.cit.*, p. 22; for an argument on the limited effects of Lisbon Treaty, see Hans Wedder, “The Treaty of Lisbon and European Environmental Law and Policy, in *Journal of European Environmental Law*, Vol. 22, No. 2, 2010, pp. 285-299.

¹⁹² Cong Fu, *op. cit.*, p. 245.

¹⁹³ European Environmental Bureau, *op. cit.*, p. 16.

continued debate on “competence”.¹⁹⁴ Secondly, despite the great number of legislation adopted at the EU level, environmental problems persist. This fact emphasizes the continued significance of environmental policy in the EU. Third, the European environmental policy has now become quite different from the earlier phases by incorporation of new measures centered around the “governance” theme (e.g. Framework directives with greater flexibility to Member States), and accompanying new discussions on the rising concepts of privatization, liberalization, deregulation, retreat of the state.¹⁹⁵

2.4. The Extent of the Impact of Member States on the European Environment Policy

It is an ongoing debate on whether Member States determine the main direction of EU environmental policy. This debate entails a broader question of “how does the EU’s environmental policy-making occur?” It is also associated with discussion on the issue of what is the EU? The answer to this question varies according to theoretical lenses adopted.¹⁹⁶ Basically, three ranges of views are distinguished. First range of views states the primacy of Member States in determination of environmental policy in the EU. This view fits the theory of inter-governmentalism which emphasizes the role of states as unitary actors in anarchic international arena. States are the ultimate decision-makers and they want to maximize their interests

¹⁹⁴ Cong Fu, *op. cit.*

¹⁹⁵ See, Vincent Wright, “Reshaping the State: The Implications for Public Administration”, in *West European Politics*, Vol. 17, No. 2, 1994, pp. 102-137; Arthur Benz and Klaus H. Goetz, “The German Public Sector: National Priorities and the International Reform Agenda”, in Arthur Benz and Klaus H. Goetz (eds.), *A New German Public Sector? Reform, Adaptation and Stability*, Aldershot, Dartmouth, 1996, pp. 1-26; Walter J. M. Kickert (ed.), *Public Management and Administrative Reform in Western Europe*, Edward Elgar, Cheltenham, 1997.

¹⁹⁶ Würzel, for instance, provides a promising analysis on different views concerning “what type of actor dominates EU environmental policy-making. For each theoretical approach adopted, the answer to the question changes. Theoretical views presented in Würzel’s study include intergovernmentalism, neo-functionalism, regime theories, policy networks, epistemic communities and advocacy coalitions. For details see Rüdiger K. W. Würzel, *op. cit.*

which are defined in terms of power.¹⁹⁷ For inter-governmentalists, the EU is only a bargaining area for Member States. With regards to discussion of environmental policy with inter-governmentalist lenses, it is argued that “environmental leader and/or highly regulatory¹⁹⁸ Member States export their national environmental standards and regulatory styles”¹⁹⁹. This argument is not shared by a number of scholars who argued that EU environmental policy is comprised of complex compromises which reflect many different interests from multiple levels. Rejecting the “export” argument, Albert Weale, for instance, claimed that EU environmental standards are neither solely produced by a dominant coalition of countries, nor by different countries imposing their national style in a sector that is of particular importance to them. For Weale, the environmental standards at the EU level are to be recognized as “the aggregated and transformed standards of their original champions modified under the need to secure political accommodation from powerful veto players.”²⁰⁰

The second range of views put emphasis on the role of bureaucracy (in the European Commission, COREPER)²⁰¹, or supranational organs (such as the European Parliament or again the European Commission), or interest groups (non-governmental elites and NGOs) in policy-making processes in the EU. This line of

¹⁹⁷ See for instance, Andrew Moravcsik, “Preferences and Power in the European Community: A Liberal Intergovernmentalist Approach, in *Journal of Common Market Studies*, Vol. 31. No. 4, 1993, pp. 473-524.

¹⁹⁸ Note that highly regulatory Member States do not have to be environmentally advanced countries. The reason they want to export their national standards is to be found in their aspirations “to reduce adaptation costs”. Because, if their national environmental standards are taken on at the EU level, they will not need to adapt. This point is stated in Rüdiger K. W. Würzel, *op. cit.*, p. 37.

¹⁹⁹ *Ibid.*

²⁰⁰ Albert Weale, “Environmental Rules and rule-making in the European Union”, in *Journal of European Public Policy*, Vol. 3, No. 4, 1996, p. 607.

²⁰¹ Committee of Permanent Representatives (French acronym, COREPER) is a type of sub-ministerial committee in the EU decision-making framework, composed of high-level diplomats and experts assigned by Member States, which does the preparatory work for the Council of Ministers. It has been observed that bulk of the decisions is adopted at this level.

argument shares certain similarities with the framework of functionalists/neo-functionalists. Neo-functionalists, borrowing from early functionalists, use the concept of “spill-over” in explaining the European integration. As cooperation in a sector progresses, it creates incentives in other sectors for extension of cooperation. For neo-functionalists, the role of the domestic governments is thus curbed. In between these two poles, there are a number of theoretical stances attempting to explain the complex phenomenon of decision-making at European level. Recently, hybrid theoretical approaches, partly compliant with inter-governmentalist arguments, and partly compatible with neo-functionalist arguments are developed in order to better explain the complexity in European integration. What is derived from the whole debate on the role of Member States in determining the EU environment policy is that there is hitherto no royal road in explaining the dynamic policy framework of the environment policy in the EU entirely. It is only understood that, neither the Member States nor supranational actors or pressure groups are in full control of policy-making.²⁰²

Once having been adopted, the European measures are expected to be incorporated into national legislation and to be properly implemented. Studies of implementation have long been studying the disparities between “what government promises and what it performs”.²⁰³ The term “implementation deficit” has been used to describe the gap between legislative intentions and policy results. The creation and development of the European integration as a supra-national source of environmental legislation appeared as a new relevant theme for implementation studies. Two questions became central for the studies in the junction of issues of implementation and EU. One is associated with the role of diverse national traditions and institutions in aiding or hindering the process of European integration, and second is related with

²⁰² Rüdiger K. W. Würzel, *op. cit.*, p. 271.

²⁰³ Henry Buller, Philip Lowe and Andrew Flynn, “National Responses to the Europeanisation of Environmental Policy: A Selective Review of Comparative Research”, in Duncan Liefferink and Arthur P.J. Mol (eds.), *European Integration and Environmental Policy*, John Wiley & sons, New York, 1995, p. 181.

the analysis of how Member States are able to structure their own environmental policies around their “nationally preferred concepts”, alongside the existence of binding European level legislation. Whilst the former question is important for analyzing the European integration at large, the latter is relevant to this dissertation’s argument. Next section will present a discussion on the extent of impact of European environmental policy in national environmental policy contexts.

2.5. The Impact of European Environmental Policy on Member States’ Environmental Policies

The impact of European Union on its Member States has become one of the major themes in the EU studies. It appears that there is an agreement among scholars over the idea that the EU “has some impact upon domestic politics, policies and administrative structures”.²⁰⁴ Nevertheless, the nature and limits of this impact is a matter of discussion. According to some experts, the EU’s impact on national environmental policies is huge. For instance, Pamela Barnes and Ian Barnes maintained that it was understood as early as mid-1980s that the EU’s environmental policy had become “the single most significant factor affecting the development of national environmental legislation of Member States.”²⁰⁵ On the other side, it is commonly stated that the impact of environmental policies of the EU is curbed by the lack of action of the national governments to enforce and operationalize EU legislation. The European Commission, for instance, reported in 1996 that “what is lacking is the attitude changes and the political will to make the quantum leap to make the necessary progress to move towards sustainability.”²⁰⁶ The impact of European integration on national policies is conceptualized via the term “Europeanization”. The concept of “Europeanization” recently became central to the

²⁰⁴ Duncan Liefferink and Andrew Jordan, *op. cit.*, “An ‘Ever Closer Union’...”, p. 102.

²⁰⁵ Pamela M. Barnes and Ian G. Barnes, *op. cit.*, p. 1.

²⁰⁶ European Commission, *Progress Report from the Commission on the Implementation of the Community Program of Policy and Action in Relation to the Environment and Sustainable Development*, Brussels, 1996, p. 3.

studies on “how” and “to what extent” European integration affects national politics and policies. Before analyzing the relevance of Europeanization literature to the Chapter in particular and to the argument of the dissertation in general, a brief note on the concept of Europeanization is worth presenting.

2.5.1. Europeanization and Environmental Policies

The Europeanization literature, studying the ways and levels of impact of European integration on national policies, reveals that Europeanization should not be understood as something equal to policy convergence among national policies of EU Member States.²⁰⁷ Indeed, the literature on Europeanization showed that there are cases where persistence or even divergence of national policies occurred. Therefore, the impact of EU policies on national policies is not a straightforward top-down impact resulting in convergence, contrary to the term Europeanization at first may suggest. That is to say, the concept of Europeanization implies a broader area for research through which differential outcomes of European impact, such as persistence or divergence, are also explored. There is a similar picture with regards to the European impact on national *environmental* policies, which WFD is a part of.

Studying on the alternatives of European impact on national environmental policies, Liefferink and Jordan, for instance, reached the conclusion that the European impact on national policies of environment is limited by specific national priorities: “[P]artly by their own choice and partly pushed by European legislation, but without denying their national traditions and preferences they (Member States) all increasingly draw upon a common stock of ideas, policies, and institutional arrangements. What results is not convergence towards a single model, but perhaps ‘convergence in breadth’.” For Liefferink and Jordan, despite the fact that European environmental policy introduced new actors, instruments, and standards; it was not able to change “fundamental composition and design” of environmental policies of Member

²⁰⁷ Duncan Liefferink and Andrew Jordan, *op. cit.*

States.²⁰⁸ Therefore, while some elements of the environmental policies of the EU are taken on by the Member States (leading to convergence), some aspects of environmental policies at the EU level did not find their ways into national policies. As argued by Liefferink and Jordan, they are mostly the settings of “environmental standards” where convergence is most strongly visible. It should be noted that calibration of EU environmental standards are done through official issuances of Directives, Regulations, By-laws, etc. at the national level. Also, these legislative actions are said to be done with little public scrutiny. Hence, the actions pertaining to (re-)definition of environmental standards at the national level which are to be in line with EU’s environmental standards are procedural in nature, without necessarily influencing the substance of the policies. In line with this argument, it is also stated that the EU rarely caused revolutionary changes in national environmental policies. This is not to say that national environmental policies remain largely unchanged despite the EU legislation. Yet, the changes in national environmental policies usually are said to be incremental.²⁰⁹

With regards to the impact of environmental policy of the EU on national environmental policies, there is another prevailing view emphasizing the converging affect of EU environmental policy. According to this, as the EU’ legal measures are increasingly setting the pace of national environmental legislation; the risk of a legislative gap emerging between Member States is reduced.²¹⁰

These twofold findings of the literature studying Europeanization are broadly supported by hypotheses of two broader schools of thought of institutionalization, as well. Therefore, the underpinning arguments of the Europeanization studies are also distinguished within different approaches in institutionalization theory. Similar to

²⁰⁸ Rüdiger K. W. Würzel, *op .cit.*, p. 5.

²⁰⁹ *Ibid.*

²¹⁰ Ludwig Kramer, *EC Treaty and Environmental Law*, 2nd edn., Sweet and Maxwell, London, 1995, p. 160.

Europeanization research which concluded that the European impact on national policies may yield differential results; these two schools of thoughts contend two different lines of argument mirroring the conclusions reached by Europeanization readings. One of these schools of thought is sociological institutionalist theory. According to this view, “organizations tend to become similar as they struggle to become more isomorphic with their operating environment.”²¹¹ The historical institutionalist theory, on the other hand, emphasizes the resilience of national policies and institutions against outside pressures. For this school of thought, political and institutional arrangements are “very deeply rooted in national history”. Through this logic of permanence, national policies and institutions retain their legitimacy in the eyes of national actors.²¹²

In sum, both the literature discussing the scope and limits of the European impact in national policies and the two schools of institutionalist thought (sociological and historical institutionalist thoughts) suggest that the impact of European integration on national policies vary considerably across contexts in Member States. The rapidly growing empirical research tends to illustrate cases where policy convergence occurs as well as cases where persistence or even divergence prevails.²¹³

This fact, namely the existence of multiple national contexts with differentiated levels of executions of European environmental rules, runs contrary to normative element embedded to EU environment policy. This normative element is conceptualized within the term of “ecological modernization”. Within the ecological modernization framework, environmental concerns are to be recognized as necessary

²¹¹ Duncan Liefferink and Andrew Jordan, *op. cit.*, p. 105.

²¹² *Ibid.*

²¹³ See for instance, Duncan Liefferink and Andrew Jordan, “Europeanization and Policy Convergence: A Basis for Comparative Analysis”, in Andrew Jordan and Duncan Liefferink (eds.), *Environmental Policy in Europe: the Europeanization of National Environmental Policy*, Routledge, London, 2004, pp. 15-31. Also see case studies on 10 selected Member States, namely Austria, Finland, France, Germany, Ireland, the Netherlands, Norway, Spain, Sweden and the United Kingdom, in Andrew Jordan and Duncan Liefferink (eds.), *Environmental Policy in Europe: the Europeanization of National Environmental Policy*, Routledge, London, 2004, pp. 32-223.

for sustainable economic development. It is, in this background, argued that the environmental policy in the EU setting should be understood within the normative commitment to ecological modernization thesis.²¹⁴ Ecological modernization is also explicitly referred in the Fifth and Sixth Environmental Action Programs of the EU.²¹⁵

However, as Buller et al. pointed out, environmental rules in the EU could be perceived with taking into account of combined effects of the normative *and* political contexts they are framed. It is even the case that political factors determine more.²¹⁶ In their words: “[E]nvironmental standards and norms continue to be the result of political and economic compromise rather than strict ecological necessity.”²¹⁷ Thus, with regards to studies on the European environmental policy’s impact on Member States, according to Buller et al., social scientists should not become “too oriented” to solely supporting “the harmonizing, conventionalizing, and standardizing intentions” of Eurocrats.²¹⁸ Therefore, in order to understand the differentiated implications of European environmental rules in different national contexts, they suggest the examination and elucidation of social and cultural characteristics of these national settings. It is necessary to better capture relationship between the political structures (nation states) and regulatory structures (in this case, the EU), which is re-defined during the process of European integration. To elaborate, as already known, European environmental rules which represent regulatory style of legislation, emerged long after the historical and political settings as well as environmental

²¹⁴ Albert Weale, Geoffrey Pridham, Michelle Cini, Dimitrios Konstadakopoulos, Martin Porter and Brendan Flynn, *Environmental Governance in Europe*, Oxford University Press, Oxford, 2000, p. 80.

²¹⁵ See Fifth Environmental Action Plan, available online at <http://ec.europa.eu/environment/actionpr.htm>, accessed on 12.05.2011, and Sixth Environmental Action Plan, available online at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52001PC0031:EN:HTML>, accessed on 12.05.2011.

²¹⁶ Henry Buller, Philip Lowe and Andrew Flynn, *op. cit.*, pp. 186-192.

²¹⁷ *Ibid.*, p. 188.

²¹⁸ *Ibid.*

policy approaches in nation-states became established. Therefore, the nation states in Europe have faced with environmental rules emanating from a supra-national organization, the EU, irrespective of their specific contexts and only after their priorities emerged, traditions are sustained, and practices are followed for considerable periods of time.

This is an “inverted” relationship, as termed by Liefferink and Mol. They stated the confrontation between two styles²¹⁹, i.e. the inversion, in a concise statement which is worth quoting:

“Nations that have developed, in some cases over long periods of time, their own approaches to environmental management, reflecting longstanding political, ideological and, indeed, cultural traditions, are finding these approaches increasingly challenged by the regulatory style of a European policy making structure that, devoid of any intrinsic and autonomous historic, cultural or ideological identity, has had to place a fabricated, regulatory style ‘cart’ before and evolved, political style ‘horse’”.²²⁰

The analysis of this inverted relationship in different national contexts attracted intellectual attention. For instance, the concept of “Mediterranean Syndrome” (MS), with its implications on the environmental policy, is utilized by La Spina and Sciortino to better understand and explain the design and implementation of environmental legislation in Mediterranean countries, a group of countries which

²¹⁹ Regulatory vs. policy styles. “Policy style”, a concept first introduced by Jeremy Richardson, used to understand national differences. According to the policy style concept, “different countries adopt different policy responses to problems such as air or water pollution, nuclear energy, housing or health problems”, quoted from Jeremy Richardson and Nicholas Watts, *National Policy Styles and the Environment: Britain and West Germany Compared*, Science Centre, Berlin, 1986, p. 4. “Regulatory style”, on the other hand, is described as a function of more general concept of policy style. Regulatory style causes a policy (such as environmental policy) “to be regulated in the same way as other areas of corporate conduct.”, quoted from Mikael Skou Andersen and Duncan Liefferink, *European Environmental Policy: The Pioneers*, Manchester University Press, Manchester, 1997, p. 6.

²²⁰ Henry Buller, Philip Lowe and Andrew Flynn, *op. cit.*, p. 191.

Turkey also belongs to. According to their view, the so-called Mediterranean syndrome prevails in a context when three conditions are met: 1- dispersed micro-behavior of citizens which is difficult to monitor; 2- complex administrative procedures, which necessitates a high level of expertise; 3- viscous, fragmented, reactive and party-dominated legislative processes. In synopsis, La Spina and Sciortino argued that MS prevails in Mediterranean countries' environmental policies. Implementation remains to be unsatisfactory, and there is a "chronic weakness of control and enforcement bodies, across all the Mediterranean countries".²²¹ Given the absence of a potent European Agency empowered with certain regulatory, monitoring, and even enforcement powers, a satisfactory level of environmental protection continues to be unlikely in Mediterranean countries. Thus, they suggest redrafting the European Environmental Agency's roles so that it could become a strong institution.

This dissertation is an endeavor within these contexts discussed throughout the Chapter. It tries to show, in what ways the WFD would be in power of altering the Turkish water policy, and which aspect(s) of it. As it is hypothesized in the introductory part, and as it attempts to demonstrate empirically that, while legal discourses and policy networks are more adaptable to changes stemming from the EU WFD, the underlying institutionalized arrangements would demonstrate more resilient status with regard to same causal impact. In order to test this hypothesis, an analysis of all three aspects of Turkish case of water policy should be realized.

2.6. Conclusion

This Chapter has showed that the environmental policies in the EU experienced a long process determined by the changes in the Treaties, half a dozen of Environmental Action Plans and adoptions of hundreds of legislation.²²²

²²¹ Antonio La Spina and Giuseppe Sciortino, "Common Agenda, Southern Rules: European Integration and Environmental Change in the Mediterranean States", in Duncan Liefferink, Philip Lowe, and Arthur P.J. Mol, *op. cit.*, p. 225.

²²² More than 400 pieces of legislation adopted. See <http://www.europa.eu>, accessed on 12.02.2011.

In time, “the legal foundation of environmental policy became clear, decision-making mechanism evolved, and implementation measures varied.”²²³ However, the EU’s environmental policy remains not so powerful in the sense that it gives “a general flexibility” to Member States. This feature of EU environmental policy is reinforced by the recent trend of “context-oriented governance” as named by Knill and Liefferink.²²⁴ In Ludvig Kramer’s view, this recent tendency in EU environmental law is risky in terms of its results: “EU environmental legislation has become more general in the last two decades, leaving more and more monitoring and implementation discretion to EU Member States. This led to a situation that where a country or an administration... does not have the determination to provide for an appropriate protection of the environment, environmental law is not sufficiently precise and stringent to ensure this protection.”²²⁵ All in all, it remains ultimately up to the Member States to follow the environmental rules adopted at the EU level in a genuine manner, or to implement the procedural side without much changing the substance of policy. This aspect of EU environmental policy has implications for the WFD, too. As Grönlund and Määttä observes the flexibilities in the WFD might be perceived as a “reflection” of the actual EU environmental policy which is distinguished by the general flexibility it offers to Member States.²²⁶

Apart from this, the discussion in this Chapter revealed a number of points of relevance for the topic of this dissertation which need to be recapitulated. For instance, Member States tend to make frequent references to dominant national philosophies. This has been shown with empirical evidence by a study of Würzel, on the implementation of sewage treatment policies by Germany and the UK.²²⁷ In this way, Member States are able not to deny their own national priorities, and the impact

²²³ Cong Fu, *op. cit.*, p. 245.

²²⁴ Christoph Knill and Duncan Liefferink, *op. cit.*, p.163.

²²⁵ William Howarth, *op. cit.*, p. 392.

²²⁶ Elisabeth Gronlund and Tapio Määttä, *op. cit.*, p. 222.

²²⁷ Rüdiger K. W. Würzel, *op. cit.*, p. 233.

of environmental policy of the EU remains to be incremental. The national adaptation to European environmental legislation is described as “domestic adaptation with national colors”.²²⁸ Two reasons for this could be listed: one is the inherent flexibility of the European legislation (along with the principle of subsidiarity), and second is the impermeability and resilience of some of the national traditions and institutions.²²⁹ Secondly, environmental standards and measures adopted at the EU level could not be easily associated with its “champions”. These standards and measures, reflecting a broad compromise²³⁰ among a number of actors from different levels, have now become transformed into a new set of rules, sometimes quite distant from the intentions of the originators. Third, there is a normative element embedded in the European environmental policy. This normative element is related with the ongoing tension between the issues of environmental sustainability on the one hand, and economic development, on the other. The concept of ecological modernity is formally adopted by the EU through a series of official documents²³¹ in search of finding a balance between the two. Fourth, the EU environmental policy is characterized; inter alia, by “notorious implementation

²²⁸ Quoted from Mario G. Cowles, James Caporaso and Thomas Risse (eds.), *Transforming Europe: Europeanization and domestic Change*, Ithaca, London, 2001, p. 1; in Christoph Knill and Duncan Liefferink, *op. cit.*, p. 218.

²²⁹ For instance, according to Henry Buller et al. difficulties in implementing environmental rules on “agricultural practices” indicate the limitations of the regulatory style, and normative notion of environmental quality at the European level (Henry Buller, Philip Lowe and Andrew Flynn, *op. cit.*, pp.175-196).

²³⁰ Sometimes, this has been termed as “lowest common denominator”. However, this understanding would be too simplistic to understand the multiple factors (e.g. “package deals” - a Member State is forced to agree to the “package” of legislation, despite the existence of unwanted pieces of legislation in the package. But overall, it will be more for that Member State’s interest to accept the package, or securing a coalition for other legislation) in affect. Also, the empirical evidence provides cases where the lowest common denominator is well exceeded.

²³¹ European Commission, *Towards Sustainability: A European Community Program of Policy and Action in Relation to the Environment and Sustainable Development*, Brussels, 1993; European Commission, *Eleventh Annual Report on Monitoring the Application of Community Law*, Brussels, 1994; European Commission, *Communication on the Sixth Environmental Action Program*, Brussels, 2001.

problems”.²³² And fifth, the water policy at the European level including the WFD, emerged within an environmental policy setting as discussed in this Chapter, reflecting most of its characteristics.

Next Chapter will discuss the WFD in a detailed manner, testing the level of flexibility as utilized by Member States in the first ten years of implementation. This will provide insight for an analysis of WFD vis á vis legal rhetoric, policy networks, and institutions prevailing in Turkey’s water management policy.

²³² Christoph Knill and Duncan Liefferink, *op. cit.*, p. 214.

CHAPTER 3

The Water Framework Directive (2000/60/EC)

3.1. Introduction

This Chapter discusses the “Directive 2000/60/EC of the European Parliament (EP) and of the European Council of 23 October 2000, namely the Water Framework Directive (WFD) establishing a framework for Community action in the field of water policy”. The chapter will first present the EU water policy prior to the WFD which entails the three waves through which EU water legislation has evolved and the protracted adoption process of the WFD. This section will demonstrate the following fact: Hence, it is argued that instead of being a legislation aiming to improve water quality based on a pure scientific approach, the WFD rather appears to be a compromised text among a number of differently interested parties. Next, the aims, principles, and instruments of the WFD will be examined through making references to relevant provisions and supplementary texts, such as Guidance Documents within the framework of Common Implementation Strategy (CIS), or Communications emanating from the European Commission. This section will be followed by some critical views on the WFD. The relevance of this section would be that it will show the great level of flexibility the WFD gives for Member States. Two central themes of the critiques, highlighting the wide room of maneuver given for Member States are to be mentioned in this context: the vagueness in the concepts used and level of protection targeted; and the large number of exemptions with a considerable scope of application. A separate section in the present Chapter is devoted to a discussion of these clauses of exemptions. In light of the discussion on various facets of the WFD, the actual implementation practices across the EU will be studied next, through utilization of Commission reports as well as studies from other sources such as the European Environmental Bureau. The half-way implementation

overview, during which several steps of implementation have been taken in Member States, reveals a “bleak picture”. This is attributable to two factors. Firstly, it is related with the general level of the flexibility –somewhat intentionally- implanted in the WFD. In line with the context-oriented governance approach prevailing in recent EU environmental legislation for the last two decades, WFD gives a substantial room of maneuver and interpretation for Member States. In other words, the WFD is a reflection of the recent trends in broader context of the environmental legislation in the EU. And secondly, it is attributable to the resilience of major water institutions in Member States to change. Both trends are visible in the broader setting of EU environmental legislation and its impact on national environmental law.

The Water Framework Directive (WFD) has been in force since 22 December 2000. The significance of the WFD is acknowledged in many studies. According to some experts, it has significance beyond the domain of water legislation in the EU. In this framework, the Directive has been regarded as “the most significant piece of European environmental legislation ever introduced”.²³³ It has been said to be the “constitution” of the EU water management policy.²³⁴ Having been adopted after “a decade of political struggle” which comprised a process of multiple negotiations among a variety of stakeholders including European Union organs (European Parliament, European Commission and European Council of Ministers), Member State governments and NGOs; the WFD introduced a new, integrated approach into EU water policy to protect and improve all types of European waters²³⁵. It constitutes for the first time in the development of European water policy a single piece of framework legislation that aims at coordinating environmental objectives and all measures instead of concentrating only on improvements in different water-related

²³³ William Howarth, *op. cit.*, p. 392.

²³⁴ Nermin Çiçek, *Su Çerçeve Direktifi ve Büyük Menderes Nehir Havzası Yönetim Planı Örneğinde AB ve Türkiye Yaklaşımı*, M.Sc. thesis submitted to Selçuk University, Graduate School of Science and Engineering, 2010, p. 3.

²³⁵ Freshwaters *and* coastal waters.

sectors separately. In this sense, the WFD introduced an ecological and holistic water status assessment approach based on river basin planning, a strategy for elimination of pollution²³⁶ by dangerous substances, public information and consultation and also financial instruments. Under the Directive, Member States are obliged to prevent further deterioration and to enhance and restore the status of aquatic ecosystems as well as terrestrial ecosystems and wetlands directly depend on aquatic ecosystems. It aims to achieve “good ecological status and chemical status” by 2015. The main approach of WFD is stated concisely in Recital 1 as “Water is not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such.”

The WFD, as other Community Directives, is an act of secondary European law (Art. 249 sec. 3 EGV)²³⁷, based on art. 175 sect. 1 EGV, that consists of 26 legally binding articles and a great number of recitals (53) which are not legally binding, but to be used for the interpretation of the different articles. At the end of the legally binding part of the Directive, 11 different annexes are added.

Adopted by the Council in conjunction with the European Parliament or by the Commission alone, a directive is addressed to the Member States. Its main purpose is to align national legislation. A directive is binding on the Member States as to the result to be achieved but leaves them the choice of the form and method they adopt

²³⁶ Pollution is defined as “the direct or indirect introduction, as a result of human activity, of substances or heat into the air, water or land which may be harmful to human health or the quality of aquatic ecosystems or terrestrial ecosystems directly depending on aquatic ecosystems, which result in damage to material property, or which impair or interfere with amenities and other legitimate uses of the environment.” See, Marleen van Rijswick, “The Water Framework Directive”, in H. van Rijswick (ed.), *The Water Framework Directive; Implementation in German and Dutch Law*, Utrecht, 2003, p. 18 (on file with the author).

²³⁷ The “secondary legislation” is the third major source of Community law after the Treaties (primary legislation) and international agreements. It can be defined as the totality of the legislative instruments adopted by the European institutions pursuant to the provisions of the Treaties. Secondary legislation comprises the binding legal instruments (regulations, directives and decisions) and non-binding instruments (resolutions, opinions) provided for in the EC Treaty, together with a whole series of other instruments such as the institutions’ internal regulations and Community action programs.

to realize the Community objectives within the framework of their internal legal order.²³⁸ If a directive has not been transposed into national legislation in a Member State, if it has been transposed incompletely or if there is a delay in transposing it, citizens can directly invoke the directive in question before the national courts. Additionally, the Commission, in its role as guardian of the Treaty, has a right to take legal action at the European Court of Justice.²³⁹ Such legal action may result in Court judgments for noncompliance with the provisions of the EU water legislation which could also include penalty payments.²⁴⁰

3.2. The Road toward the WFD

In order to see the recent developments, mainly the WFD in a broader European legal context, a short view of the history of European water law is useful²⁴¹. Examination of pre-WFD EU water legislation will provide an understanding of the innovative aspects of the WFD, because those earlier water directives are regarded as the “baseline” against which the WFD is evaluated.²⁴² In the literature, this historical overview is analyzed in three successive stages, which will be presented below.²⁴³

²³⁸ The legal position of the WFD, as well as other directives, is based on article 249 para. 3 of the Treaty of the European Community (Treaty of Nice, 2001). The article states that “a directive shall be binding as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods”. In practice this means that the member states have a certain degree of flexibility and discretion in implementing the objectives of the directive. The degree of flexibility in the WFD is being discussed in the light of provisions of the Directive. See the section “Exemptions in the WFD”.

²³⁹ Helmut Bloech, “European Water Policy and the Water Framework Directive: an Overview”, in *Journal for European Environmental & Planning Law*, Vol. 1, No. 3, 2004, p. 170.

²⁴⁰ *Ibid.*

²⁴¹ For a view of the integration background see: David Grimeaud, *op. cit.*, p. 41.

²⁴² Ben Page and Maria Kaika, *op. cit.*, p. 329.

²⁴³ There is a second approach in dividing three stages of EU water legislation. See for instance, Özden Bilen, *op. cit.*, “Türkiye’nin Su...”, pp. 123-130. This second understanding takes the EAPs and Treaty changes as reference points for dividing EU water policy history into stages. For this approach, the first stage covered the period of first three EAPs (1973-1986). The second stage lasted between 1987, the SEA, and 1993, entry into force of the Maastricht Treaty. The third stage, which began in

3.2.1. The first “wave” (1975-mid-1980s)

The first “wave” of EU water legislation took place from 1975 to mid-1980s. A number of pioneering directives were adopted in this period. During this period, the so-called “dual approach” was adopted. According to this approach, on the one hand, certain directives were setting “environmental quality standards” (EQS) for particular types of water like surface water, fish water, shellfish water and bathing water²⁴⁴. In 1980, binding quality targets for drinking water²⁴⁵ were set. As the second part of this dual approach, water legislation in the EU established emission limit values (ELV) for specific water uses. The Dangerous Substances Directive²⁴⁶ and the “Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution caused by certain dangerous substances” could be listed under this second heading.

Environmental quality standards (EQS) focus on the pollution target. They can therefore be described as rules relating to environmental quality. They are generally concerned with individual aspects of the environment, such as a particular medium (soil, water and air) or a specific target (e.g. human beings, ecosystems). For these

1993, end by 2000, when the WFD had been adopted. The weakness of this approach is that it has a tendency to subordinate water legislation to environmental legislation, particularly with regards to first phase. Because, first water specific legislation had been laid down in 1975, two years after the first EAP entered into force. Overall, for the sake of convenience, the approach which divided EU water legislation into three –in accordance with water specific enactments- has been presented here.

²⁴⁴ 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, OJEC L 306 (26/11/1975), p. 20 ff. 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, OJEC L 222 (14/8/1978), p. 1. Council Directive 79/923/EEC of 30 October 1979 on the quality required of shellfish waters, OJEC L 281 (10/11/1979), p. 47. Council Directive 76/160/EEC of 8 December 1975 concerning the quality of bathing water, OJEC L 031 (5/2/1976), p. 1.

²⁴⁵ Council Directive 80/778/EEC of 15 July 1980 relating to the quality of water intended for human consumption, OJEC L 229 (30/8/1980), p. 11.

²⁴⁶ Council Directive 76/464/EEC of 4 May 1978 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community, OJEC L 129 (18/5/1976), p. 23.

targets, environmental quality standards outline a desirable quality level.²⁴⁷ Emissions limit values (ELV) can be defined as regulatory measures aimed at the source of potential environmental pollution. They are used to restrict the level of permissible pollutant emissions to the environment by means of general or abstract limit values. This approach is guided by such concepts as “state-of-the-art technology” or the highly economically oriented “best available technology”.²⁴⁸

As Kristof Geeraerts noted, the adoption of this dual approach, which was composed of two parallel tracks of setting EQS and ELV, remained as a weakness of the Community water policy in this period.²⁴⁹ Because, for Geeraerts, “quite a lot of time and energy is devoted to find common standards, i.e. to find limit values equivalent to each other.”²⁵⁰ Besides, the level of discretion granted to Member States has been exploited in many cases to open up a window of relaxation of directives’ requirements. Therefore, the implementation record concerning this stage was not very impressive. For instance, the problem of implementation with respect to fish and shellfish Directives is summarized as “Implementation problems have been more striking in the case of the fish and shellfish directives. The vagueness on whether the directives served an environmental or public health purpose and the ambiguity in the duty of the Member States to designate waters for protection, have limited their

²⁴⁷ European Environmental Bureau (EEB), *Handbook on EU Water Policy under the Water Framework Directive*, January 2001, Brussels, p. 4.

²⁴⁸ *Ibid.*

²⁴⁹ Kristof Geeraerts, Institute for European Environmental Policy, Policy Analyst on Environmental Governance, personal interview, Brussels, January 2008. Geeraerts pointed out that the differential interests of Member States was one of the major factors why this dual approach was adopted. He stated “At that time, only the UK was preferring the first approach (variable values of dangerous substances). Other Member states and the Commission preferred to work with the second approach (fixed values). Generally we work with compromises and at that time Member States are allowed free to choose between these two approaches. So, a parallel approach is adopted.”

²⁵⁰ Kristof Geeraerts, Institute for European Environmental Policy, Policy Analyst on Environmental Governance, personal interview, Brussels, January 2008.

effectiveness”.²⁵¹ However, there were points of success, as well. For instance, the requirement of compliance necessitated huge investments in some Member States, such as Italy and the UK. This, in turn, resulted in significant institutional reforms in water management policy in these countries.²⁵²

3.2.2. The second “wave” of EU water legislation (mid-1980s-1995)

The second stage in EU water legislation was said to start with a seminal meeting of environment ministers across the EU in Frankfurt, Germany, in 1988. In this meeting, a review of the existing European water legislation was made. Upon this review, some improvements that could be made and the gaps that needed to be filled were determined.²⁵³ One of the main findings of this meeting was related to the problem of agricultural pollution (basically due to diffused nitrate pollution) elimination of which was recognized to increase costs of treatment.²⁵⁴ The second important identification of this meeting was associated with the degradation of water quality because of untreated wastewaters. Therefore, this second period witnessed the adoption of the Urban Waste Water Treatment Directive²⁵⁵ and the Nitrates Directive²⁵⁶ in 1991.

The Urban Waste Water Treatment Directive (UWWTD) laid down the rules for improvements in treatment facilities, and required implementation of certain

²⁵¹ Giorgos Kallis and Peter Nijkamp, “Evolution of EU Water Policy: A Critical Assessment and a Hopeful Perspective”, VU University Amsterdam, Faculty of Economics, Business Administration and Econometrics in its series *Serie Research Memoranda* with number 0027, 1999, p. 5.

²⁵² *Ibid.*, p. 4.

²⁵³ *Ibid.*, p. 6.

²⁵⁴ Özden Bilen, *op. cit.*, “Türkiye’nin Su...”, p. 126.

²⁵⁵ Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment, OJEC L 135 (30/5/1991), p. 40.

²⁵⁶ Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources, OJEC L 375 (31/12/1991), p. 1.

measures, differentiated by size of towns²⁵⁷, in accordance with a timetable. As a general rule, it required the establishment of sewage networks and biological treatments in those centers with a population of 2000 or more.²⁵⁸ A more stringent treatment of secondary (biological) waste is thus required by the UWWTD.²⁵⁹

The Nitrates Directive dealt with water pollution caused by nitrates from agricultural activities. In the Nitrates Directive, a different approach was adopted with regard to diffused pollution caused by nitrates. The Nitrates Directive abstained from laying down detailed rules, and instead, adopted a “framework” understanding focusing on the structural problems specific to agricultural sector. As being a framework directive, thus, the Nitrates Directive gave greater flexibility for Member States. The general rules are set out in the Annexes of the Directive and the identification of details of implementation is left to Member States. As the first step, the Nitrates Directive required from Member States to identify the areas under risk or danger of pollution, and define them as “vulnerable zones”. As a second step, following the identification of sensitive areas, the Nitrates Directive requires the establishment of action programs for realizing “healthy agricultural practices”.

During the second wave of the development of European water law two Commission proposals came forward. The first one was resulted in adoption of Drinking Water Directive²⁶⁰ which aimed at improving the quality standards of drinking water. And

²⁵⁷ The Technical term “agglomeration” is used in the Directive to denote “an area where the population and/or economic activities are sufficiently concentrated for urban waste water to be collected and conducted to an urban waste water treatment plant or to a final discharge point” (Article 2.4).

²⁵⁸ Article 3 and Article 4.

²⁵⁹ Marleen van Rijswijk, *op. cit.*, “European Water...”, p. 3.

²⁶⁰ Finally adopted in 1998: Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption, OJEC L 330 (5/12/1998), p. 32.

the second proposal produced a “Directive for Integrated Pollution on Prevention Control” (IPPC)²⁶¹ which dealt with the pollution caused by industrial plants.

3.2.3. The third “wave” of EU water legislation (1995- 2011)

A need for a major review of the European water policy came forward by the mid-1995. The incoherence in water legislation was one important factor for discussions on the review of EU water policy. The European institutions decided that the new European Water Policy had to address water management and water protection through a more coherent policy. Additionally, the high costs associated with the implementation of water related Directives which have been questioned by Member States²⁶² was another factor contributing to the arguments for a reform of EU water policy. The requests from the European Parliament’s environmental committee and from the Council of environmental ministers for new water policy legislation were responded by the Commission, which was also planning to initiate such a policy document.

Therefore, in mid-1995, the Commission called for an open consultation process including not only the official European organizations, but also all interested parties such as local and regional authorities, water users and non-governmental organizations (NGOs). Meanwhile, the Commission prepared a preliminary proposal for a new water policy in February 1996.²⁶³ These efforts produced a two day conference in May 1996, to which 250 interested parties had attended. The need for a single piece of framework legislation which would eliminate the inconsistencies in

²⁶¹Integrated Pollution on Prevention Control (IPPC), Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control, OJEC L 257 (10/10/1996), p. 26.

²⁶² For instance, As Giorgos Kallis and Peter Nijkamp noted, the implementation costs of Urban Wastewater Treatment Directive are estimated to be around 150 billion euros, for the EU composed of 15 Member States; cited from Giorgos Kallis and Peter Nijkamp, *op. cit.*, p. 6.

²⁶³ European Commission, *Communication to the European Parliament and the Council on European Community Water Policy*, Brussels, 21.02.1996.

EU water policy was raised in this conference. This was the beginning of a path which ended by the adoption of the WFD on October 23, 2000.

To summarize, EU water legislation falls into three different stages. During the first two periods (1975-1980 and 1980- to mid 1990s) more than 25 water-related Directives and Decisions entered into force which mainly concentrated on “environmental quality standards” and “emission limit values”, dealing with different types of water. The result of these two periods was a so-called “patchwork”, an incoherent legislation entailing several deficits and sometimes conflicting rules. The efforts in need for a review and redesign of this incoherent legislation culminated in the adoption of the WFD in 2000²⁶⁴. These efforts which started in mid 1990s and lasted until 2000 will be discussed in more detail. This discussion would provide an insight on the overall character of the WFD, which appeared when a compromise text had been reached amongst Member States, and different EU organs.

3.3. The WFD Drafting Process

The Water Framework Directive has attracted interest not only because of its substance, but also because of the process through which it was adopted. After lengthy negotiations within and among Member States, the Commission, the Council of Ministers and the European Parliament, the WFD had been dealt with the “co-decision procedure.” For the first time, an environmental directive was to be adopted by co-decision procedure. This is because of the fact that the powers of the Parliament had been increased through the Amsterdam Treaty.²⁶⁵ Through the

²⁶⁴ 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, OJEC L 327 (22/12/2000), p. 1.

²⁶⁵ Amsterdam Treaty extended the utilization of co-decision procedure. See chapter on Environmental Policy in the EU. The co-decision procedure, which was introduced by the Treaty on European Union, was conceived as an extension of the cooperation procedure. However, while in the latter the Council can, acting unanimously, disregard the opinion of Parliament, in the co-decision procedure there is no such possibility: in the event of disagreement, a conciliation committee made up of representatives of the Council and of Parliament has to arrive at a text that is acceptable to the two institutions. The co-decision procedure now puts these two institutions on an equal footing in the legislative roles. Under this procedure, the Council cannot adopt a common position if the process of conciliation with

process of co-decision, both the Council of Ministers and the European Parliament had “joint influence over the final text.”²⁶⁶ However, it was not the whole story, for the European Parliament and the Council of Ministers could not agree on the Directive and conciliation talks—the last chance to agree on the text- had started. The fate of the proposed and -so many times amended- Directive was not clear until the results of second (last) round of conciliation talks.

The WFD drafting process is important in the sense that it enables one to clearly see the positions, interests, and discourses of each of Member States (Governments), the Parliament, and different lobbies. This process is summarized in the Table 2.

Table 3. Drafting Process of the WFD

1997-1998	European Commission Proposals
February 1999 (on the basis of the Amsterdam Treaty)	European Parliament First Reading
October 1999	Council Common Position
February 2000	European Parliament Second Reading
October 2000	Final adoption of the Water Framework Directive is, under joint decision by the European Parliament and the Council ("co-decision procedure") and following a conciliation procedure
22 December 2000	Entry into force

Source:http://ec.europa.eu/environment/water/waterframework/info/decision_en.htm, accessed on 15 October 2010.

Parliament fails. If no agreement is reached, the legislative process is terminated for the legislative act concerned.

²⁶⁶ “Achieving sustainable and innovative policies through participatory governance in a multi-level context Final Report (Water)”, Chapter 1: Results of the case study on the European Union and the Water Framework Directive, written by Maria Kaika and Ben Page, *Research Project Funded by the European Community under the 5th Framework Program (Improving human potential and socio-economic knowledge base)*, Contract no HPSE-CT-1949-00028, p. 16.

Following the two day Conference in May 1996, which welcomed the preliminary Commission proposal on water policy, the Commission published a more formal proposal in February 1997.²⁶⁷ It should be stated that, the proposal for the WFD was prepared by the DG Environment of the European Commission, most of the staff of which had previously worked in environmental lobbying organizations. This appeared to be advantageous for environmental lobbies in the subsequent negotiations on the content of the WFD.²⁶⁸ As part of the formal procedure which Commission proposals are subject to, this proposal is sent to the Environment Committee of the European Parliament and the Council of Ministers²⁶⁹ which resulted in three subsequent amendments to the proposal.²⁷⁰ In June 1998, during the Council presidency of the UK, the Council of Ministers tried to quickly agree on the proposal, before the entry into force of Amsterdam Treaty²⁷¹. The agreement reached by Council of Ministers in June 1998 was understood as a dilution of the green credentials of the WFD: the idea of economic pricing was completely refused, and derogations²⁷² were allowed up to 34 years²⁷³. When the proposal was transferred to the European Parliament, following a discussion in the Environment Committee of

²⁶⁷ European Commission, *Proposal for a Council Directive Establishing a Framework for Community Action in the Field of Water Policy*, COM(97)49, Brussels, 1997.

²⁶⁸ Özden Bilen, *op. cit.*, “Türkiye’nin Su...”, p. 145.

²⁶⁹ Composed of Environmental Ministers.

²⁷⁰ In July 1997, November 1997 and February 1998.

²⁷¹ To recapitulate, Amsterdam Treaty would have granted the European Parliament an equal say with the Council of Ministers in certain environmental legislation, including the WFD.

²⁷² A derogation is defined as “a provision in an EU legislative measure which allows for all or part of the legal measure to be applied differently, or not at all, to individuals, groups or organisations.” Derogation is not a provision excluding application of the legal measure: it is a choice given to allow for greater flexibility in the application of the law, enabling Member States or social partners to take into account special circumstances.” See, <http://www.eurofound.europa.eu/areas/industrialrelations/dictionary/definitions/derogation.htm>

²⁷³ Note that the Commission proposal demanded derogations would be up to 12 years.

the EP, it became apparent that there were significant disagreements between the Council and the EP, being the arguments of the EP members are more “sympathetic to environmentalists”.

As part of a strategy characterized by rushing the WFD through, a declaration from the Council claimed that the Council had produced the final text. This declaration caused a confrontation between the EP and the Council. As a result, the EP refrained from giving an official reading to the proposal, until February 1999. Noting that the Amsterdam Treaty will come into force in May 1999, the EP tried to secure that the WFD will be subject to co-decision procedure.²⁷⁴ It is interesting to see that the Parliament was not unitary in its opposition to the position of the Council of Ministers. For instance, socialist MEPs, representing agricultural interests in Southern Europe, were against the introduction of full-cost pricing for consumers. According to these MEPs, this would be a great economic burden on farmers of the European south.²⁷⁵

The informal meetings between the Commission, the Council and the EP did not yield significant results.²⁷⁶ The first formal reading of the WFD in the EP occurred in February 1999. Some 200 amendments were made during the EP reading. 133 of these amendments were accepted by the Commission, most of which composed of minor changes such as linguistic clarifications.²⁷⁷ According to Kaika and Page, one of the amendments that the Commission had rejected was of particular importance.

²⁷⁴ Cited from Ian White, “The concept of the legislation”, Presentation to workshop *the Freshwater Framework, Globe EU Finenel*, 2001; Maria Kaika and Ben Page, The EU Water Framework Directive: Part 1. European Policy-Making and the Changing Topography of Lobbying, in *European Environment*, Vol. 13, 2003, p. 319.

²⁷⁵ *Ibid.*

²⁷⁶ These meetings were only able to resolve 3 out of 14 disagreement points. Nevertheless, they are regarded as useful in terms of trust building between the organizations for future work on the issue.

²⁷⁷ However, four groups of amendments are regarded as substantial: “those relating to consultation, those relating to the legal status of the incorporation of the Esbjerg declaration, those relating to the process of identifying priority hazardous substances and those relating to the process of setting quality standards for drinking water sources.” Maria Kaika and Ben Page, *op. cit.*, p. 320.

The Commission, at that stage rejected the use of the following statement “water is not a commercial product like any other but instead is a part of Europe’s heritage which belongs to the peoples of the European Union and ought, therefore to be protected”. For the Commission, this statement, which was “purely rhetorical”, did not added a legal value to the text. As Kaika and Page pointed out, this could be read as illustrative of the shift within the Commission towards prioritizing the idea of water as an economic good and ultimately the water pricing as a significant tool in environmental protection.²⁷⁸

In March 1999, the Council of Ministers altered the text of the EP substantially. Four changes are particularly remarkable. First, the Council of Ministers proposed that the new Directive should “request” from member states to “make an effort” to achieve good water status. In the text of the EP, the Directive would “oblige” Member States to achieve good water status. Second, while the Commission and the Parliament had implanted full-cost pricing into the Directive, the Council omitted this principle. Third, the Council rejected the reduction of implementation periods. In Council’s view, the WFD should allow Member States up to 34 years to implement the Directive’s rules. This was accompanied by introduction of a number of derogations, which could allow many water bodies to be exempt from the rules of the Directive. Fourth, the Council decided that the Groundwater Directive’s (80/68) “zero-emission” approach for “List 1” substances should be abandoned, and that the “zero-emission” approach the Dangerous Substances Directive should be valid for 32 substances, instead of 129.²⁷⁹

The Council’s decision led to great dissatisfaction among the environmentalist NGOs. This dissatisfaction was because of two reasons: First, the Council proposed dilution of the legal force of the new WFD, and second, this would also mean a weakening of existing legislation as well, for the fact that the new water Directive

²⁷⁸ *Ibid.*

²⁷⁹ *Ibid.*, p. 321.

would replace existing directives which already placed legal obligations on Member States.²⁸⁰ In fall 1999, on the eve of the second reading in the EP, environmental NGOs, particularly the WWF and the EEB intensified their lobbying activities in order to “strengthen” the legislation.²⁸¹

In December 1999, the text was again transferred to the EP for the second reading. Meanwhile, the treaty of Amsterdam had entered into force in May 1999. Therefore the EP was now dealing with the issue from a strengthened point. Nevertheless, the Environment Committee of the EP made a concession to the Council by dropping the requirement of full-cost pricing by agriculture, industry and households individually. Instead, the Environment Committee of the EP proposed that an “adequate contribution” to the recovery of the costs of water services and policies which would provide adequate incentives for users to use water resources efficiently should be realized. Plus, a charging system encouraging the rational use of water resources should be realized. In February 2000, the EP voted in favor of the Environmental Committee’s text.

After two readings by the EP, the text remained as a contentious one between the Council and the EP. In accordance with the formal procedures, a “conciliation committee” was to be created in order to resolve the points of disagreement and possibly reach a compromise. Before the first conciliation committee meeting, the environmental lobbying organizations became active again in Brussels with a bunch of demands. Against the strong presence of environmental NGOs, a further concession was made by the EP to the Council during the first conciliatory meeting. The EP dropped its demand concerning the halting of all discharges of hazardous

²⁸⁰ *Ibid.*

²⁸¹ They aimed to incorporate the following provisions into the Directive: “full cost water pricing, a shorter implementation deadline than the maximum 34 years proposed by the Council of Ministers, a commitment to phase out certain hazardous substances (in agreement with the OSPAR Convention; OSPAR Convention stands for “The Convention on the Protection of the Marine Environment in the North-East Atlantic Ocean”, 1992) and a limit to exemptions given for ‘heavily modified’ waters deemed beyond rehabilitation”, and additionally, they wanted the new Directive to be a binding document. See *ibid.*, pp. 321-322.

substances by 2020. Instead, a priority list should be published according to which Member States should aim to comply with.²⁸² In spite of the concession from the EP, the first process of conciliation did not yield a compromise.

Meanwhile, the WFD process had become a test for the newly adopted co-operation procedure. A controversy had emerged with regard to the issue of voting method for the final text in the Council of Ministers. As a general rule, the legislation having environmental objectives was dealt with by qualified majority voting (QMV), according to Article 175 of the EU Treaty. But, in accordance to paragraph 2, there are exceptions to this. Management of water resources is one of those exceptions. Concerning these exceptions, the Council would take decisions on the basis of unanimity. The government of Spain invoked the exceptions argument that the Council of Ministers should act unanimously for the Directive to be accepted. Unanimous decision making would have given Spanish government a power to veto the WFD. Spanish governments argument faced resistance from the Commission, and from the three Member States, namely France, Portugal and Finland. According to their view, the unanimity rule applies to the matters pertaining to water quantity. They claimed that, since the WFD primarily deals with the quality aspects of water management, it should be voted on the basis of QMV. No agreement was reached between two fronts, and the case was brought to European Court of Justice. In May 2000, the case was settled by the judgment of the European Court of Justice favoring the position of the Commission as well as three Member States.²⁸³

The second round of conciliation occurred in June 2000. This was a final chance to reach an agreement. Otherwise, the WFD case would formally be dropped out of the agenda. On 28 June 2000, the agreement was finally reached following long negotiations. Kaika and Page argued that both parties made concessions to each other

²⁸² Critics argued that the list will never be finalized and the precautionary principle is not respected.

²⁸³ European Court of Justice, Opinion, *Case C-36/98 "Kingdom of Spain v. Council of the European Union"*, delivered on 16.05.2000.

over a range of issues.²⁸⁴ The agreed text was a compromised one, with an effort to combine demands from both parties. The issue of legal enforceability is illustrative in this respect. On the one hand, in line with the Council's view, the WFD requires Member States only to "aim to achieve" good water status. Yet, it also stipulates that Member States "shall protect different kinds of water, prevent water quality deterioration and enhance water bodies" with an aim of reaching "good status".²⁸⁵ The Parliament's demand concerning the insertion of a motto-like statement that "water is not a commercial product like any other, but, rather a heritage which must be protected, defended and treated as such" was satisfied. But, the demand of the Parliament on the elimination of all hazardous substances was not accepted. On this issue, basically the Council's view prevailed which required dealing with substances only contained in a special list. A middle ground was found with regards to the timetable: while the Council demanded 16 years, and the Parliament demanded 10 years to aiming at "good water status"; the deadline was set to 15 years. As a concession by the EP, the provisions on preventing groundwater pollution were also omitted. However, it was agreed that a Daughter Directive on Groundwater will be adopted.

The agreement on the final text of the WFD was proclaimed on 18 July 2000. Having passed through the formalities of approval in the EP and the Council of Ministers, the WFD finally entered into force on 22 December 2000. The protracted process of adoption of the WFD signifies the different interests of various stakeholders across the political scenery in the EU. While the Commission and the Parliament at large demanded a "green" Directive, prioritizing the achievement of ecological objectives through realization of legally binding requirements in a tighter schedule; the Council, representative of the national interests, did not want to see a radical reform to European water policy, and unwelcomed some of the far-reaching innovations proposed. With regard to the WFD negotiations, the role of the environmental

²⁸⁴ Maria Kaika and Ben Page, *op. cit.*, p. 324.

²⁸⁵ *Ibid.*

lobbies is noteworthy. Environmental lobbies intensively tried to influence the decisions of the EP. These lobbies are now able to exploit the new Treaty provisions which were giving the European Parliament an equal power in decision making in certain environmental legislation.

On the other hand, it has been also maintained that the increasing involvement of the environmental lobbies was also supported by the Commission. The reason for this could be found in the linkage between the Commission staff and the environmental lobbies. Most of the Commission staff who prepared the WFD proposal had previously worked for environmental lobbies. Thus, the policy network prevailing in the DG Environment, the unit which was the main drafter of the WFD, had considerable impact in negotiation process. With this, the environmental lobbies had considerable advantages, relative to –for instance- the consumer lobby²⁸⁶.

In short, the connections between the Commission staff and the environmental lobbying organizations provided opportunities for both sides. On the one hand the Commission relied on environmental lobbies in justification of its proposal, and on the other, environmental lobbies gained support from the Commission which enhanced their chances of influence.

3.4. The WFD: Principles and Content

3.4.1. An Overview

According to Article 1 of WFD, the purpose of the Directive is to establish a framework for the protection of inland surface waters, transitional waters, coastal waters²⁸⁷ and groundwater. This protection will a) prevent further deterioration and protects and enhances the status of aquatic ecosystems, terrestrial ecosystems and

²⁸⁶ Historically, the consumer lobby has developed closer ties with DG Health and Consumer Affairs. See, MariaKaika and Ben Page, *op. cit.*, p. 325.

²⁸⁷ Waters up to the one mile from the shore.

wetlands directly depending on the aquatic ecosystems; b) promote sustainable water use based on a long-term protection of available water resources; c) provide an enhanced protection and improvement of the aquatic environment, through specific measures for the progressive reduction of discharges, emissions and losses of priority substances and the cessation or phasing-out of discharges, emissions and losses of the priority hazardous substances etc.; d) ensure the progressive reduction of pollution of groundwater and prevents its further pollution, and e) contribute to mitigating the effects of floods and droughts.

The WFD adopts the river basin²⁸⁸ as its main unit for action. It has been argued that from the ecological point of view this is the correct approach to water management. The proponents of this argument reiterate that the Directive, through adoption of the river basin, the hydrological unit, as main reference point for water management; promotes the integrated river basin management (IRBM) as the most efficient way to achieve sustainable water use.²⁸⁹ This, in turn, requires coordinated planning for using land and water resources within the entire river basin covering all surface, coastal and groundwaters and land-use activities. This promotion of integrated management of waters on the basis of hydrological units is regarded for some scholars as one of the innovations of the WFD, with far-reaching implications for land-use planning in particular across the EU.²⁹⁰ For the opponents, the approach which takes the river basin as the main unit for water management has some considerable “misfits”²⁹¹ which are likely to endure between the necessary measures and the level of their implementation. There are “mismatching spatial relations”²⁹²

²⁸⁸ River basin is defined as geographic area that drains all surface water to a single point.

²⁸⁹ See Angel Borja, “The European water Framework Directive: A Challenge for Nearshore, Coastal and Continental Shelf Research”, in *Continental Shelf Research*, Vol. 25, 2005, p. 1769.

²⁹⁰ Ian White and Joe Howe, “Planning and the European Union Water Framework Directive”, in *Journal of Environmental Planning and Management*, Vol. 46, No. 4, July 2003, p. 629.

²⁹¹ Timothy Moss, *op. cit.*

²⁹² Timothy Moss, and Jen Newig, “Multi-Level Water Governance and Problems of Scale Setting the Stage for a Broader Debate”, in *Environmental Management*, Vol. 46, 2010, p. 3.

between the administrative structures, like municipalities, provincial authorities etc.; and physical processes, like water cycle. In other words, river basin boundaries do not always correspond to the administrative boundaries, which result in misfits. For sound water management to be realized in a given river basin there could be some measures which should be implemented not only inside, but also outside of the boundaries of the concerned river basin. Because, some decisions and measures would need to be taken in administrative units, boundaries of which usually extend beyond the boundaries of that specific river basin. According to representative of this view, “basins *themselves* are encapsulated within other social, economic and political units whose boundaries cross cut river basins. The boundaries of ethnic and linguistic groups, local and provincial governments, and even countries are not bound by the laws of gravity underlying hydrological boundaries”.²⁹³ Therefore, confining water management into tight boundaries of river basin units could be ineffective as well as counterproductive. Choosing river basin as the main functional unit also has potential for creating considerations about power transfers. The responsibilities of newly established competent authorities in RBDs became questionable. In this context, local authorities across the EU have expressed serious considerations about handing power over to the river basin authorities.²⁹⁴ Apart from the risk of creating practical difficulties, from a rhetorical level, “river basin” could become a “hegemonic” concept preventing utilization of other instruments and methods which could be

²⁹³ Douglas J. Merrey, “Is Normative Integrated Water Resources Management Implementable?”, in *Physics and Chemistry of the Earth*, Vol. 33, 2008, p. 903. Merry mentions the example of the Olifants River Basin, a large tributary to Limpopo River in southern Africa. The Olifants River crosses three provinces of South Africa, then passes into Mozambique. Within the South African provinces, the Olifants passes through various municipalities whose boundaries are again cross-cutting. As Merry notices, even the officially designated Olifants “Water Management Area” excludes two of its major tributaries. For Merrey, it remains very doubtful for all these units of government will work together through the planned catchment management agency when it is operationalized. The existence of large national and multi-national firms of mining, agriculture and industry in the basin add extra difficulty to this scheme. Therefore, promoting IWRM, with its emphasis on achieving “all worthy goals simultaneously” in such an example could become counterproductive.

²⁹⁴ Maria Kaika and Ben Page, op. cit., “The EU Water Framework Directive: Part 1...”, p. 311.

useful for achievement of a genuinely integrated water management.²⁹⁵ For this understanding, “beyond its relevance as a geographical unit for the study of hydrology or for water resources development purposes, the river basin is also a political and ideological construct”²⁹⁶ Molle gives examples such as Franco’s “hydraulic policy” which is used to legitimize his regime and Japan’s River Law of 1896, which asserted the dominance of the Ministry of Construction. An example from South was the Indian efforts to rapidly expand irrigation schemes around the idea of integrity of the river basin.²⁹⁷

In order to reach the aim of “good status” WFD identified a number of actions that Member States should do. In a synopsis, these could be listed as follows:

- a) To identify the individual river basins lying within their national territory and assign them to individual River Basin Districts (RBDs) and identify competent authorities by 2003 (Article 3, Article 24);
- b) To characterize river basin districts in terms of pressures, impacts and economics of water uses, including a register of protected areas lying within the river basin district, by 2004 (Article 5, Article 6, Annex II, Annex III);
- c) To carry out, jointly and together with the European Commission, the intercalibration of the ecological status classification systems by 2006 (Article 2.22), Annex V);
- d) To make operational the monitoring networks by 2006 (Article 8)
- e) Based on sound monitoring and the analysis of the characteristics of the river basin, to identify by 2009 a program of measures for achieving the

²⁹⁵ François Molle, *Planning and Managing Water Resources at the River-basin Level: Emergence and Evolution of a Concept*, Research Report No. 16, IWMI, Colombo, Sri Lanka, 2006.

²⁹⁶ *Ibid.*, p. 23.

²⁹⁷ *Ibid.*, pp. 4 and 12.

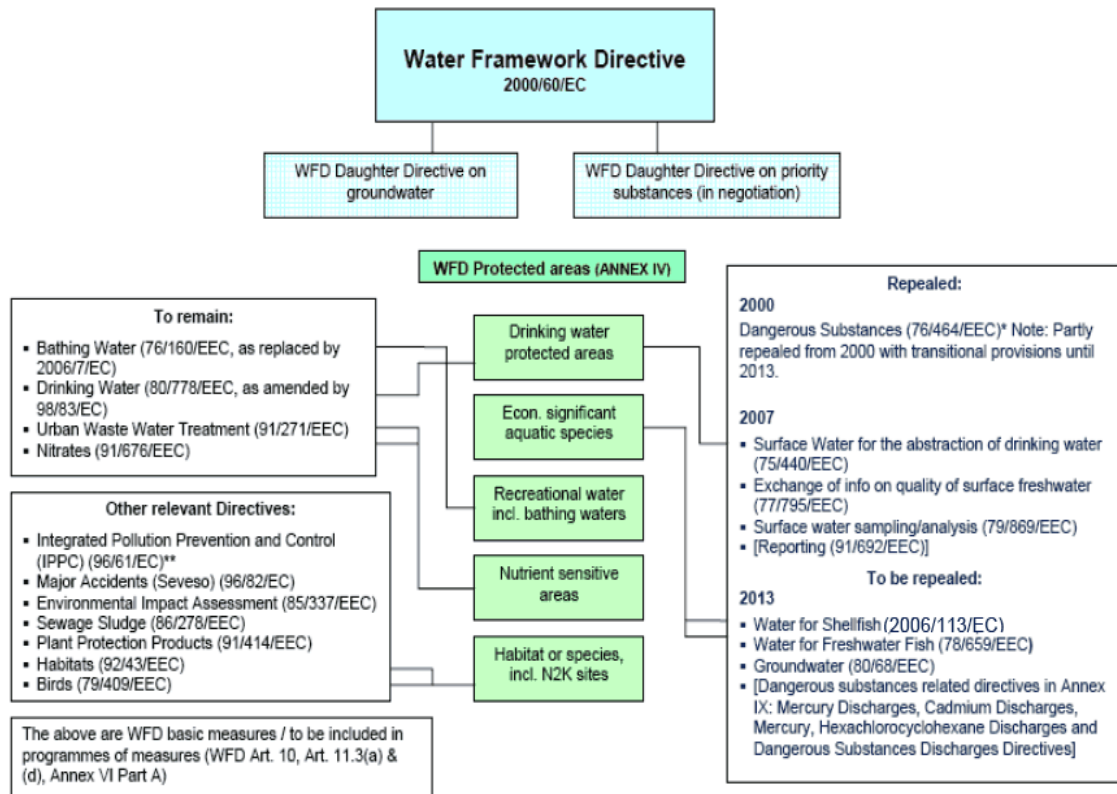
environmental objectives of the Water Framework Directive cost-effectively (Article 11, Annex III);

- f) To produce and publish River Basin Management Plans (RBMPs) for each RBD including the designation of heavily modified water bodies, by 2009 (Article 13, Article 4.3);
- g) To implement water pricing policies that enhance the sustainability of water resources by 2010 (Article 9);
- h) To make the program of measures operational by 2012 (Article 11);
- i) To implement the program of measures and achieve the environmental objectives by 2015 (Article 4)²⁹⁸

To sum up, the overall objective of the WFD is aiming at “good status” for all water bodies including surface waters and groundwaters. In order to reach these objectives WFD adopts a stepwise approach and requires completion of certain tasks within agreed time limits. As its name denotes, the WFD is a framework directive, which covers many other daughter directives (See Table 3). For the successful implementation of the WFD and to reach the mentioned objectives, these daughter directives should also be implemented in conjunction. The specific actions required to achieve “good status” are the responsibility of the competent authorities in the Member States.

²⁹⁸ Water Directors of the EU, Norway and Switzerland, *Common Strategy on the Implementation of the Water Framework Directive: Best Practices in River Basin Planning*, May 2003, p. 10.

Table 4. WFD and Relevant Directives



Source: The United Kingdom, DEFRA, “Consultation on River Basin Planning Guidance Volume 2”¹, February 2008, available online at <http://www.scotland.gov.uk/Publications/2009/01/08093750/4>.

In the following section, provisions of the WFD, which provide detailed prescriptions about the objectives, instruments, and processes of the Directive, are summarized. This discussion will enable us set the ground for understanding the challenges that WFD brings to Turkey’s water management.

3.4.2. Purpose (Article 1)

According to the Article 1, the purpose of the Water Framework Directive is defined as “to establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater”. Achievement of this purpose will contribute to sustained and sufficient supply of good quality surface water and groundwater which is necessary for sustainable, balanced and equitable water use; a major improvement in terms of pollution of groundwater; the protection of territorial waters and aquatic environment, and, meeting the objectives of relevant international accords, “including the agreements aiming to prevent and eliminate pollution of the marine environment, by Community action under Article 16(3) to cease or phase out discharges, emissions and losses of priority hazardous substances, with the ultimate aim of achieving concentrations in the marine environment near background values for naturally occurring substances and close to zero for man-made synthetic substances”.²⁹⁹

3.4.3. Integrated River Basin Management (Article 3)

Under the regime of the Water Framework Directive, Member States have to identify all the river basins lying within their national territory and assign them to individual “river basin districts” (Article 3.1). Such districts are natural geographical and hydrological units of rivers³⁰⁰ with no regard to administrative or political boundaries. River basin districts covering the territory of more than one Member State shall be assigned to an international river basin district. In three years following the Directive’s entry into force, at the latest, a “competent authority” needs to be designated for each of the river basin districts.

3.4.4. Environmental Objectives: “Good Status” for all European Waters by 2015 (Article 4)

²⁹⁹ Article 1.

³⁰⁰ Definitions of “river basin” and “river basin district” are given in Article 2 of the Directive.

In accordance with the Article 4 of the WFD, environmental objectives have to be met for all types of European waters in order to achieve a “good status” in the year 2015 at latest. These environmental objectives are separately laid down in the Directive for surface waters (including artificial or heavily modified ones), groundwater and protected areas. Under certain circumstances, the deadline of 2015 may be extended (Article 4.4) and exceptions of the environmental objectives are available due to Article 4.5³⁰¹. (See below section on “Exemptions”)

3.4.5. The Combined Approach (Article 10)

Water-related European legislation ended up – like mentioned before – in a “patchwork” of incoherent legal provisions that, finally, lacked of effectiveness. Concerning these historical experiences, the WFD introduces a different way of water-related rule-making: the combined approach. The measures provided by the Directive are co-ordinated due to this new approach with the overall aim of achieving the environmental matters mentioned above. This combined approach is to be applied in the three-step manner;

First of all, an analysis of the characteristics of each river basin district has to be made (Article 5) by the Member States, including a review of the environmental impact of human activity and an economic analysis of water use. This detailed analysis needs to be completed within four years after the date of entry into force of this Directive at latest, e.g. on 22 December 2007. All bodies of water used for the abstraction of water intended for human consumption providing more than 10 m³ and an average or serving more than 50 persons must be identified.

Secondly, due to Article 11 of the Directive, “programs of measures” have to be developed for each of the river basin districts. These programs of measures are a description of the instruments that need to be applied in order to achieve the provided environmental objectives (Article 4) and have to be based on the findings made by

³⁰¹ See Peter Chave, the EU Water Framework Directive: An Introduction, IWA Publishing, London, 2001, p. 34.

the analysis (Article 5). Last, but not least, as a third step, river basin management plans have to be set up (Article 13) nine years after the date of entry into force of the Directive at latest, i.e. on 22 December 2012. Each of these plans is a detailed account of how the environmental objectives – such as ecological status, quantitative status, chemical status and protected area objectives – are to be reached within the timescale required. The plans also have to include the results of the foregoing analysis and studies. Seen as a whole, special emphasis has to be put on the fact that this three-step concept aims at altering the traditional dichotomy in approach to pollution control on the European level into a “combined approach” of emissions.

3.4.6. Economic Analysis, Water Pricing and Cost Recovery in the WFD

One additional component of each management plan is that an economic analysis of water use within the river basin must be carried out. This is to enable a rational discussion on the cost-effectiveness of the various possible measures.

“Economics” in the WFD seems to be one of the most significant aspects of the Directive. For a sound and workable river basin management framework, upon which the water management system is founded, the conduct of economic analysis and the use of economic instruments remain critical.

3.4.6.a. Economic Analysis

According to the Article 5 of the WFD each Member State, by the end of 2004 (22 December 2004) at the latest, must conduct an economic analysis for each river basin district or for the portion of an international river basin district falling within its territory. It should be noted that Article 5 is not solely about economic analysis, but also necessitates an analysis of river basin district’s characteristics, and a review of the impact of human activity on the status of surface waters and on groundwater.

Apart from the Article 5, an annex of the WFD, i.e. Annex III is specifically devoted to “economic analysis”. It reads

“The economic analysis shall contain enough information in sufficient detail (taking account of the costs associated with collection of the relevant data) in order to:

(a) make the relevant calculations necessary for taking into account under Article 9 the principle of recovery of the costs of water services, taking account of long term forecasts of supply and demand for water in the river basin district and, where necessary:

- estimates of the volume, prices and costs associated with water services, and

- estimates of relevant investment including forecasts of such investments;

(b) make judgments about the most cost-effective combination of measures in respect of water uses to be included in the program of measures under Article 11 based on estimates of the potential costs of such measures.”³⁰²

Hence, the Annex III attaches great importance to the “enough information in sufficient detail” that economic analyses must contain for successful implementation of Articles 9 (cost recovery) and 11 (program of measures). Annex III could also be read as a complementary to the Article 5 where, *inter alia*, “economic analysis of water use” is set out. Annex III gives details on which data should be used while conducting this economic analysis.

³⁰² WFD, Annex III.

3.4.6.b. *Water Pricing and Cost Recovery*

Article 9 of the WFD obliges Member States to take into account the principle of full cost recovery for water services based on the “polluter pays” principle³⁰³. The Member States are obliged to implement pricing policies associated with an adequate level of cost recovery for water services by 2010.³⁰⁴ Water pricing policies as suggested by the WFD must reflect the following costs:

- Financial costs: direct costs embracing the costs of supply and administration, operation and maintenance, and also capital costs.
- Environmental costs: cost of the waste caused by water use on the ecosystem, for example: salination or degradation of productive soils.
- Resource costs: cost of resource depletion leading to the disappearance of certain options for other users.

The Article further specifies that Member States have to ensure two objectives in this respect: i.) water pricing policies should provide an *adequate* incentive for the efficient water use and thereby contribute to achieve environmental objectives; ii.) an adequate contribution from different water users to recover the cost of water services³⁰⁵. The second obligation specifies that water uses are at least disaggregated into industry, households and agriculture, and for which pricing regimes can be tailored.

3.4.6.c. *Supplementary Texts*

Although water pricing appears to be one of the main pillars of the WFD, and it is widely argued “an inadequate water pricing would probably aggravate water wasting,

³⁰³ The “Polluter Pays Principle” is part of international environmental law where the polluting party pays for the damage done to the natural environment. It is regarded as a regional custom because of the strong support it has received in most OECD and European Community countries. Also, In international environmental law it is mentioned in Principle 16 of the “Rio Declaration on Environment and Development” (1992).

³⁰⁴ WFD, Article 9.

³⁰⁵ *Ibid.*

water-related economic losses and impairments of the aquatic environment”³⁰⁶, the literature evolving around it lists a number of problems related with the concept and implementation of it. It is, for instance, argued that the cost categories proposed by the WFD is not “sufficiently well-defined”³⁰⁷. As clear definitions and distinctions between the financial, environmental and resource costs are lacking, the risks of overlaps and consequent “double counting” are evident.³⁰⁸ The difficulty of choosing a methodology for calculating these costs is also put forward.³⁰⁹ From a strict environmental perspective, the wording “provide an adequate incentive” seems problematic as it gives ample room for interpretation³¹⁰. The problems mentioned above could also be seen through the reports on the current river basin characteristics, which were submitted by the Member States according to Article 5 of the WFD. Each of the three cost categories is understood differently with respect to both the methodology and the matter of cost calculations.³¹¹

In evaluating water pricing policies suggested by the WFD, apart from the WFD itself, two official documents are also worth looking into in depth. The first is the document prepared by the Commission in 2000, with the title “Communication from the Commission to the Council, the European Parliament and the Economic and Social Committee- Pricing policies for enhancing the sustainability of water resources”, and the second is the Guidance Document “Economics and the Environment: The Implementation Challenge of the Water Framework Directive”.

³⁰⁶ Ingo Heinz, “The Economic Value of Water and the EU Water Framework Directive: How Managed in Practice?”, paper presented at *IWA International Conference on Water Economics, Statistics, and Finance*, Rethymno, Greece, 8-10 July 2005, p. 1.

³⁰⁷ *Ibid.*

³⁰⁹ *Ibid.*

³¹⁰ European Environmental Bureau, *op. cit.*, “Handbook on EU Water...”.

³¹¹ Ingo Heinz, “The economic value ...”, *op. cit.*, p. 3.

3.4.6.c.1 Communication from the Commission to the Council, the European Parliament and the Economic and Social Committee- Pricing policies for enhancing the sustainability of water resources

Community institutions use a range of instruments which have emerged in practice. Communications is one those. Communications are documents with no legal significance, prepared and sent by the Commission to the other European institutions which set out new programs and policies.³¹²

In this document, the commission aims to (1) clarify the main issues related to the use of water pricing for enhancing the sustainability of water resources; (2) present the rationale behind the Commission's preference for a strict application of sound economic and environmental principles in water pricing policies; (3) propose a set of guiding principles that will support the implementation of the proposed Water Framework Directive and more specifically its water pricing article.³¹³ In short, this document summarizes the views and elucidation of the Commission's ideas about the pricing related provision.

The Communication starts with stating the water management as one of the environmental policies of the Commission. The Commission, then, summarizes the increasing emphasis on the use of economic instruments for enhancing the sustainability of environment, through giving examples of Rio Declaration (1992), and the ministerial Declaration of the second World Water Forum (Den Haag, 2000). Within this background, the Commission argues that it also “has advocated an increased role for pricing in enhancing the sustainability of water resources in the

³¹²http://europa.eu/legislation_summaries/institutional_affairs/decisionmaking_process/114535_en.htm, accessed on 21.10.2010.

³¹³ Communication from the Commission to the Council, European Parliament and Economic and Social Committee: Pricing and sustainable management of water resources [COM(2000) 477, available online at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52000DC0477:EN:HTML>, accessed on 20 October 2010.

context of the proposed Directive establishing a framework for Community action in the field of water policy (or Water Framework Directive)".³¹⁴

The definition of the "water price" provided by the Commission is "the marginal or overall monetary amount paid by users for all the water services they receive (e.g. water distribution, wastewater treatment), including the environment." This definition takes into account of both "the quantity of water extracted from the environment" and "the pollution emitted to the environment". In line with this account, the Commission further gives a basic formulation for deliberation of water prices in the EU: "the overall price P paid by a given user can be computed as $F + a.Q + b.Y$, with F: an element related to fixed costs, general taxes, etc; a: a charge per unit of water used; b: a charge per unit of pollution produced; Q: the total quantity of water used; Y: the total pollution produced. A reduction in the quantity of water used (Q) and/or the pollution produced (Y) will then lead to a reduction in the overall water price P paid by the user.

The Commission's argument about the water pricing policies in developing countries is significant and worth quoting at length: "The application of sound economic and environmental principles in water pricing policies is even more limited for developing countries, mainly as a result of affordability and social concerns. In these countries, the application of stricter economic principles is in its infancy, and is driven by an increased involvement of the private sector in urban water services and by the donor community as illustrated by the EU guidelines Towards Sustainable Water Resources Management. Irrigation that is the largest user remains highly subsidized and financial revenues are often insufficient to recover even operation and maintenance costs of irrigation systems." The Commission endorses that "as safe sanitation and water supply is not ensured for large parts of the population of these countries, affordability issues will remain significant and will require a careful design of pricing policies that balances economic and environmental objectives with social objectives."

³¹⁴ *Ibid.*

Therefore, it is arguable that the Commission is taking due consideration to the social risks associated with the WFD suggested water pricing policies in less developed Member States. However, there is a limit for this. The Commission also maintains that if the sustainable water resource management is under threat, then social-order considerations must not take precedence.³¹⁵ Instead, the Commission recommends the social back-up policies.

3.4.6.c.2. Guidance Document 1 “Economics and the Environment: The Implementation Challenge of the Water Framework Directive”

This 270 paged technical document was developed by Working Group 2.6., also called WATECO³¹⁶, through a collaborative program involving the European Commission, all the Member States, the Accession Countries, Norway and other stakeholders and Non-Governmental Organizations³¹⁷ and focuses on the implementation of economic elements of the WFD in the broader context of the development of integrated river basin management plans as required by the Directive.³¹⁸ This document, like other Guidance Documents, does not provide legally binding prescriptions but, meanwhile, it could be “regarded as presenting an informal consensus position on best practice agreed by all partners”.³¹⁹

The Guidance Document, unlike the WFD, differentiates two kinds of functions of economic analyses: explicit and implicit. While “explicit” is referring to the economic components that are specifically outlined in Article 5 and Annex III, the term “implicit” is referring to references made to economic issues in other parts of

³¹⁵ *Ibid.*

³¹⁶ WATECO is the name of one of the Working Groups established in the framework of the Common Implementation Strategy process. It stands for WATER and ECONomics. The members of WATECO are economists, technical experts and stakeholders from European Union Member States and from a limited number of candidate countries to the European Union.

³¹⁷ European Communities, *op. cit.*, “Guidance Document No 1...”, disclaimer page.

³¹⁸ *Ibid.*, p. iii.

³¹⁹ *Ibid.*, disclaimer page.

the Directive text that will also require some economic analysis which has not been mentioned specifically in Article 5 and Annex III. Thus, the Guidance Document is more encompassing in its “economic analyses” understanding and takes the issue more comprehensive than the WFD itself.

Next, the Guidance Document sets out a 3-steps approach of in order to support the development of river basin management plans. The first step is “characterizing river basins”, the second is “identifying significant water management issues” and the third is “identifying measures and economic impact” (see Figure 2)

Objective	The Three Steps	Feed Into	Timing
To characterise River Basins	<p>STEP 1</p> <p>Economic Analysis of Water Use Project Trends to 2015 Assess Current Level of Cost Recovery</p>	<ul style="list-style-type: none"> Economic Analysis of Water Uses Identification of protected areas 	By 2004
To identify significant water management issues and risk of non-compliance	<p>STEP 2</p> <p>Identify Gap in Water Status</p> <p>No Gap Basic Measures Sufficient to Achieve Objective Remain Total Cost of Measure</p> <p>Gap Supplementary Measures to Achieve Objective Identify Key Pressures Causing the Gap</p> <p>Economic analysis for reporting • The designation of heavily modified water bodies • The justification of new morphological modifications, over-abstraction and diversion</p>	<ul style="list-style-type: none"> Preparatory documents for RBMP Interim Overview of Significant Water Management Issues 	By 2006 By 2007
To help identify a cost-effective programme of measures	<p>STEP 3</p> <p>Identify Potential Measures Understand the cost-effectiveness Analysis Assess Total Cost of Programme of Measures</p> <p>Are total costs considered disproportionate?</p> <p>Yes Costs of measures are considered disproportionate Investigate the allocation of costs → Prioritisation Compare costs and benefits → Lower Objective Include Programme of Measures with Derogation Estimate Total Costs of Measure</p> <p>No Costs of Measures are considered proportionate</p> <p>Assess financial implications of programme of measures</p>	<ul style="list-style-type: none"> Draft RBMP 	By 2008
To assess cost-recovery and incentive pricing and their economic impact		<ul style="list-style-type: none"> River Basin Management Plan Adequate pricing and cost-recovery 	By 2009 By 2010

Figure 2. Three Step Approach for River Basin management Plans, source: European Commission, Guidance Document 1.

The Guidance Documents presents four questions which needs to be further examined in the years leading up to preparation of the river basin management plans. These questions, on which Turkey should also focus carefully, are:

- 1) How to assess environmental and resource costs: how can methods for assessing environmental costs (developed at an academic level) be made operational in the context of the development of river basin management plans?
- 2) How to deal with uncertainty: which approaches can be proposed to water managers for integrating uncertainty into decision making, and for developing adequate communication on uncertainty towards the public and stakeholders?
- 3) How to assess the effectiveness of measures or combination of measures: clearly, this issue departs from the scope of pure economics. But it will need to be solved to ensure cost-effectiveness analysis can be performed.
- 4) How to assess the direct and indirect economic impact of a range of measures on key economic sectors? (e.g. industrial and agricultural economic sectors/sub-sectors).³²⁰

As it is demonstrated above, the Guidance Document appears to be a practical guide for implementation of most of the WFD's economic resolutions. It elaborates the role of economics in the WFD, the planning and methodologies for "economic analysis" stage and reporting the results of the economic analysis.³²¹ This document however, deliberately excludes the methodology to develop incentive water pricing policies, which is the requirement of the Article 9.

³²⁰ *Ibid.*, p. 48.

³²¹ *Ibid.*, p. 1.

Indeed, there is no Guidance Document devoted to water pricing policies, in specific. Thus, upon gathering knowledge and experience through all binding and non-binding document pilot projects, their particular situations, each and every Member State is obliged to find and develop its own methodology policy of water pricing. This is indeed true for the methodology presented by the Guidance document 1 as well. The Guidance Document 1 states “[B]ecause of the diversity of circumstances within the European Union, the way to deal with the logical approach and address specific issues will vary from one river basin to the next. This proposed methodology may therefore need to be tailored to specific circumstances.”³²² In short, differences at the national and basin-wide scales should be reflected on the development of economic analysis and water pricing methodologies.

3.4.7. Public Participation (Article 14)

Public participation is accepted one of the key issues for integrated water management.³²³ Public participation is defined as “the process of ensuring that those who have an interest or stake in a decision are involved in making that decision”.³²⁴

During the preparatory stages of the WFD, it became clear that the key for a general acceptance of the WFD is to fully involve all interested parties. There are two main reasons why the Directive extends the degree of *public participation* in the process of European water policy. The first is that the decisions on the most appropriate measures to achieve the objectives in the river basin management will involve balancing the interests of various groups. The economic analysis requirement is intended to provide a rational basis for this, but it is essential that the process is open to the scrutiny of those who will be affected. The second reason concerns

³²² *Ibid.*, p. 2.

³²³ See Claudia Pahl-Wostl and Matt Hare, “Processes of Social Learning in Integrated Resources Management”, in *Journal of Community and Applied Psychology*, Vol. 14, No. 3, 2004, pp. 193-206.

³²⁴ Adam Harrison, Guido Schmidt, Charlie Avis and Rayko Hauser, *WWF’s Preliminary Comments on Public Participation in the Context of the Water framework Directive and Integrated River Basin Management*, June 2001, p. 2.

enforceability. The greater the transparency in the establishment of objectives, the imposition of measures and the reporting of standards, the greater care Member States will take to implement the legislation in good faith, and the greater the power of citizens will be to influence the direction of environmental protection.³²⁵

Thus, one of the important pillars of the WFD has become the “public participation” in water management. It is clearly stated in the Article 14 of the Directive that the success of this Directive relies on close cooperation and coherent action at Community, Member State and local level as well as on information, consultation and involvement of the public, including users. Article 14 states that “Member States shall encourage the active involvement of all interested parties in the implementation of this Directive, in particular in the production, review and updating of the river basin management plans”. Article 14 further stipulates that “On request, access shall be given to background documents and information used for the development of the draft river basin management plan.” In this context, Member States are specifically obliged to list the contact points as well as procedures on how to obtain these background documents and information.³²⁶ Through this stipulation within the Article 14, as Lanz and Scheuer argue, NGOs are granted with an “all-encompassing right to know”. This right is further reinforced by three other stipulations, one being in the Article 14, other two being in the Article 11. It is provided in the Article 14 that public shall have an access to actual monitoring data, when requested. As for the Article 11, details with regard to control measures on point sources of pollution (Article 11.3.g.), and details concerning adverse impacts on the status of waters (Article 11.3.i.) should be accessible by general public. Within the scope of Article 14, Member States shall publish “(a) a timetable and work program for the production of the plan, including a statement of the consultation measures to be taken, at least three years before the beginning of the period to which the plan refers; (b) an interim overview of the significant water management issues identified in the

³²⁵ *Ibid.*

³²⁶ European Environmental Bureau (EEB), *op. cit.*, “*Handbook on EU Water...*”, p. 14.

river basin, at least two years before the beginning of the period to which the plan refers; (c) draft copies of the river basin management plan, at least one year before the beginning of the period to which the plan refers.” For the achievement of “active” involvement of the public “Member States shall allow at least six months to comment in writing on those documents”. With all these stipulations concerned, the general public and NGOs are empowered –in principle- to critically assess water management policies at the level of river basins. From this point of view, NGOs backed by the general public have a potential for significantly affecting the future of waters in the EU.³²⁷

3.4.8. Coherence in European Water Legislation (Article 22)

One advantage of the WFD approach is that it will rationalize the Community’s water legislation by replacing seven of the “first wave” (1975-1980) directives: the one on surface water and its two related directives on measurement methods and sampling frequencies and exchanges of information on fresh water quality, further more the fish water, shellfish water and groundwater Directives and the Directive on dangerous substances discharges. The operative provisions of these directives will be taken over in the Framework Directive, allowing them to be repealed.

Seven years after the entry into force of the Directive, the following legislation will be repealed: Directive 75/440/EEC (Surface water for drinking water); Decision 77/795/EEC (Information Exchange); Directive 79/869/EEC (Analysis). Thirteen years after the entry into force of the Directive, the following legislation will be repealed: Directive 78/659/EC (Freshwater Fish); Directive 79/923/EEC (Shellfish water); Directive 80/68/EEC (Groundwater); Directive 76/464/EEC (Dangerous substances and daughter directives), with the exception of Article 6, repealed on the date of entry into force of this Directive.³²⁸

³²⁷ Adam Harrison et al., *op. cit.*, p. 15.

³²⁸ European Commission, *Common Implementation Strategy*, CIS CD-ROM, 2005 Version, on file with the author, p. 2.

3.4.9. Monitoring Activities in the WFD (Article 8)

The importance of monitoring for the success of the WFD implementation is acknowledged, for it has been maintained that “poor-quality monitoring could lead to incorrect allocation of status of water bodies”³²⁹, which would be among the first steps of implementation. The Commission maintained that it is a prerequisite to reach “precise and reliable” monitoring data for sound planning of investments in the program of measures.³³⁰ In line with this, for the WFD, the main aim of monitoring is to “establish a coherent and comprehensive overview of water status within each river basin district”.³³¹ Annex V provides the details on monitoring programs which should be completed by six years after the entry into force of the Directive, at the latest.³³²

1) Surveillance monitoring is designed to provide information to: i.) supplement and validate impact assessment procedures; ii.) enable the adequate preparation of future monitoring programs; and, iii.) assess long-term changes in natural conditions or as a result of anthropogenic activity. The data and information collected over the 12-month period will provide the basis for the production of river-basin management plans (RBMPs) to be published by December 2009.

2) Operational monitoring aims to provide information to be used to classify the status of water bodies identified as being at risk of failing their environmental objectives. If measures are taken to improve the quality of a water body, operational monitoring may also be used to assess any changes resulting from these actions.

³²⁹ Marina Coquery et al., *op. cit.*

³³⁰ European Commission, *Report from the Commission to the European Parliament and the Council in accordance with article 18.3 of the Water Framework Directive 2000/60/EC on programs for monitoring of water status*, Brussels, 01.04.2009, p. 4.

³³¹ Article 8.1.

³³² Article 8.2.

3) Finally, investigative monitoring may be undertaken where surveillance monitoring shows that environmental objectives for a particular water body are not likely to be met, and to understand the causes of such failure. In addition, investigative monitoring is also designed to assess the extent of the impact of accidental pollution events.

WFD does not specify the techniques and the methods to be used for monitoring. Thus, it will be up to Member States to devise their methods for monitoring. It has been stated that there is a wide range of available methods and tools to be used for monitoring activities.³³³ Yet, there have been a number of international efforts for establishing criteria which will enable comparisons among different national tools and methods.³³⁴ It is anticipated that these criteria could lessen the uncertainty existing in differentiated national understandings of monitoring activities. Overall, It has been argued that implementation of the WFD should result in intensification of monitoring of aquatic ecosystems and increased control of contaminants.³³⁵

3.4.10. Transboundary water resources in the WFD

Besides, many EU countries are dependent on one another in terms of transboundary waters. 95% of Hungary's total water resources come from neighboring EU

³³³ For a discussion on different tools and their applications, see Ian J. Allan, Graham A. Mills, Branislav Vrana, Jesper Knutsson, Arne Holmberg, Nathalie Guigues, Serena Laschi, Anne-Marie Fouillac and Richard Greenwood, Strategic Monitoring for the European Water Framework Directive, in *Trends in Analytical Chemistry*, Vol. 25, No. 7, 2006, pp. 704-715.

³³⁴ For instance, the International Standardization Organization (ISO) proposed a guide for "analytical quality control for water analysis", including the definition of the range of concentration of application, required accuracy, limits of quantification and detection, and uncertainty of measurement. Furthermore, the EC Expert Group "Analysis and Monitoring of Priority Substances" (AMPS) for the WFD has proposed target values for measurement uncertainty on a European scale. The European Quasimeme (Quality Assurance Laboratory Performance Studies for Environmental Measurements in Marine Samples) project has been developed since 1993 to determine the current accuracy and to improve the quality of chemical measurements made in marine monitoring programs. See, for instance, EA (European Accreditation) Expert Group, *EA guidelines on the expression of uncertainty in quantitative testing*, December 2003, 27 pp.

³³⁵ Marina Coquery et al., *op. cit.*

countries. This figure is 90% for the Netherlands and 95% for Slovakia. 40% of Germany and Portugal's total water resources come from transboundary waters. All in all, 2/3 of the whole EU territory falls into one of transboundary river basins.³³⁶ Several issues such as water quality, floods and river navigation are significant concerning transboundary waters.³³⁷ For an integrated water management which would be based on river basins, thus, transboundary cooperation among Member States, and if possible, with non-member countries deemed necessary.

In order to address the issue WFD includes clauses to be implemented that relate to transboundary waters, and the goals set for internal waters are also applicable to the parties' transboundary waters. Within this framework, the WFD encourages transboundary cooperation and openly demands that its rules were implemented even beyond the territory of the EU, in cases where river basins extends beyond the Community borders.³³⁸ From the perspective of the WFD, the hydrological units (river basins) are basic management units, and Member States have the responsibility to ensure that a river basin covering the territory of more than one Member State is assigned to an international river basin district. If a river basin district extends beyond the territory of the Community, Member States should endeavor to establish appropriate coordination with the relevant non-Member States, with the aim of achieving the objectives of the WFD throughout the river basin district. As it could be seen, there are no enforcing measures proposed as well as no sanctions in case of non compliance is provided.

³³⁶ Susanna Nilsson, Sindre Langaas, and Fredrik Hannerz, "International River Basin Districts under the EU Water Framework Directive: Identification and Planned Cooperation", in *European Water Management Online Official Publication of the European Water Association (EWA)*, 2004.

³³⁷ Due to favourable climatic conditions, there are no serious problems relating to issues of quantity for most of Europe. For most of the continent, precipitation is usually sufficient for irrigated agriculture as well as for the continuous supply of potable water. Notable exceptions to this are Southern European countries, such as Spain, Italy Greece and Cyprus. As it has been stated previously, this fact has been reflected in the general approach of the WFD. With this in mind, the WFD mainly addresses the issue of water quality. Water quantity is regarded as an "ancillary element" to water quality in the Directive.

³³⁸ See Article 3 of the WFD.

Table 5. Deadlines of the WFD Implementation

Position	Acc. to art... of WFD	Deadlines
Entry into force	25	December 2000
Harmonization of the legislation		
- adoption of legal provisions	24	December 2003
- determination of competent bodies	3 (7)	December 2003
- determination of competent bodies in relation to EU	3 (8)	June 2004
Initial characterization and risk assessment		
- analysis of the river basin characteristics	5 (1)	December 2004
- list of protected territories	6 (1)	December 2004
- determination and assessment of significant burdens	5 (1)	December 2004
- economic analysis of water use	5 (1)	December 2004
Continuation of data collection for initial characterization	5 (2)	December 2013/2019
EU provisions for groundwater		
- setting of measures on the part of the EU for groundwater protection	17(1)	December 2002
- EU criteria for chemical status and trends reversal	17(2)	December 2002
- nationally based criteria - if necessary	17 (4)	December 2005
Monitoring programme		
- preparation and implementation	8	December 2008
Public information and consultation		
- publication of the timetable and work programme	14 (1a)	December 2008
- publication of the most important issues concerning water capacity	14 (1b)	December 2007
- publication of draft copies of the River Basin Management Plan	14 (1c)	December 2008
River Basin Management Plan and Programme of Measures		
- preparation and publication of the River Basin Management Plan	13 (8)	December 2009
- preparation of programme of measures	11 (7)	December 2009
- cost recovery of water supply and sewerage	9 (1)	December 2010
- implementation of measures	11 (7)	December 2012
-(additional development) updating of the River Basin Management Plan	13 (7)	December 2015
-(additional development) updating of the programme of measures	11 (8)	December 2015
Achievement of the objectives		
- good status of surface waters	4 (1a)	December 2015
- good status of groundwater	4 (1b)	December 2015
- achievement of the objectives in protected territories	4 (1c)	December 2015
- extension of the terms for objectives achievement	4 (4)	December 2021/2027
List of the priority "Hazardous Substances"		
- proposal for graphic values of the emissions and immissions	16 (8)	Oct./Nov 2003
- further development/updating of the list	16 (4)	December 2004
- cessation of discharges of priority hazardous substances	16 (6)	20 years

Source: Ministry of Environment of Bulgaria, Implementation of the European Water Framework Directive in Bulgaria-Manual, 2007, p. 5.

3.5. Contending Views on the WFD

The WFD remains to be one of the most complex pieces of the European Community water legislation. For a more complete perception of the WFD, it is useful to present

the major points raised by its critics. For instance, main concerns for the European Environmental Bureau³³⁹ include long deadlines, ambiguous provisions; an unclear level of protection as well as a large number of opt-out clauses and time extensions.³⁴⁰ These criticized issues, some of which are officially acknowledged by European authorities as well as by Member States³⁴¹, provide a certain degree of insight on the issue of implementation and upcoming challenges. Arguments that have been raised around the WFD basically fall into two distinct categories. On the one hand, there are views debating the WFD from broader perspective, without necessarily evaluating particular articles or rules of the Directive (e.g. these arguments take a critical position towards WFD's focus on quality of water, its ambiguities, opt-outs and exemptions, etc.). On the other hand, there are a number of arguments discussing WFD with emphases to specific aspects of the WFD (e.g. public participation, tight timetable, costs, etc.). Following section will present major views on the WFD, beginning first with general views then presenting more specific arguments.

One of general arguments on the WFD is associated with the ideological and discursive changes experienced in the wider political atmosphere regarding water issues. That is to say, in recent decades, it is argued that water has become a more complex issue with the incorporation of the private sector in water services, the increase in number of actors involved, the rise of environmental concerns, and the multiplication of power centers and scales at which decisions are taken. Against this background the main struggle among stakeholders of water politics is now over the perceived social role of water: public good vs. commodity. In this context, for Kaika,

³³⁹ The European Environmental Bureau, founded in 1974 in Brussels, is a federation of 140 environmental citizens organizations based in all EU Member States and most of the Accession countries, and few neighboring countries. For details, see <http://www.eeb.org>.

³⁴⁰ European Environmental Bureau (EEB), *op. cit.*, "Handbook on EU Water...", p. 49.

³⁴¹ For instance Common Implementation Strategy, which was prepared by contributions from the Commission, Member States and Norway, mentions, inter alia, that there is "the risk of bad application" of the WFD. One of the key objectives of the CIS is to limit that risk (Carrying forward the Common Implementation Strategy for the Water Framework Directive -*Progress and Work Program for 2003 and 2004*, 17.06.2003, p. ii).

the WFD adopts an approach which will indirectly result in the “commodification” of water. The importance attributed to the use of economic instruments stands odd with the laconic statement “water is not a commercial product, but rather a heritage which must be protected, defended and treated as such”.³⁴² Kaika notes that the WFD “starts by defining water as Europe's heritage but ends by asserting the importance of economic value of water and the need to focus on water pricing.”³⁴³

A second general critique of the WFD refers to its focus on environmental protection rather than resources development: the EU core member states (The Netherlands, Germany, France, and Belgium) completed their major water development projects and are shifting to effective and efficient use of existing resources, practicing demand management and the elimination of negative impacts of water use. This approach is at odds with priorities of the southern Member States, such as Spain, Italy and Greece; where water is a relatively scarce resource and stabilized water supply through development of water infrastructure is still a grave concern. Against this background, the WFD was accused of being a “Northern European Directive”.³⁴⁴ In this framework, the WFD is said to be unbalanced with a propensity to overwhelm a “one-sided environmental approach”.³⁴⁵

This general criticism is relevant to debate whether the WFD could be perceived within the framework of IWRM paradigm. There are three lines of argument on this issue. One of these is officially declared by Commission authorities. In their view, the accusation of WFD as being “Northern European” legislation is not a plausible

³⁴² Recital 1.

³⁴³ Maria Kaika, *op. cit.*, p. 303.

³⁴⁴ For a discussion on the issue, see Ayşegül Kibaroglu and Vakur Sümer, “Diverging Water Management Paradigms between Turkey and the European Union,” in *Water International*, Vol. 32, No. 5, Special Issue, 2007, pp. 728-738.

³⁴⁵ Win van Leussen, Erik van Slobbe and Georg Meiners, *Transboundary Governance and the Problem of Scale for the Implementation of the European Water Framework Directive at the Dutch-German Border*, on file with author, 2007, p. 15.

argument.³⁴⁶ Those advocating that the WFD is in compliance with IWRM principles raised the view that the WFD is Europe's way of realizing IWRM, i.e. "IWRM in the North".³⁴⁷ As Jaspers argued, the term integration is the key concept of the WFD³⁴⁸, which also is one of the key concepts of the IWRM. Besides, there are a number of similarities between the IWRM approach and WFD.³⁴⁹ Furthermore, it is already known that WFD is currently being promoted –by the EU- in places out of Europe as a model for IWRM within the framework of EU Water Initiative (EUWI).³⁵⁰ Although the arguments above have some explanatory power, there are also powerful arguments highlighting the misfits with the WFD and IWRM. Rahaman et al., for instance, listed seven "mismatches" between the WFD and the IWRM paradigm. Firstly, contrary to the fact that "IWRM calls for women's specific needs to be addressed and to equip and empower women to participate at all levels in water resources programs", the WFD does not focus on involvement of women into water management.³⁵¹ Secondly, whereas the IWRM strongly emphasizes the integration of different sectors, the WFD does not put emphasis on the need for an integrated approach relating different water related sectors. Thirdly, the WFD does not set out clear guidelines about decentralization, contrary to what IWRM recommends as crystallized in the Bonn Recommendations for Action: "Decentralization is key. The local level is where national policy meets community needs". Fourthly, according to Rahaman et al., the WFD "lacks a focus on any clear guidelines to include water users and other interested parties in the management of water resources".³⁵² Fifthly,

³⁴⁶ Helmut Bloech, European Commission, DG Environment, Water and Marine Unit, personal interview, Brussels, January 2008.

³⁴⁷ Henrik Larsen, *op. cit.*

³⁴⁸ Frank Jaspers, *op. cit.*

³⁴⁹ Henrik Larsen, *op. cit.*

³⁵⁰ *Ibid.*

³⁵¹ Muhammad Mizanur Rahaman et al., *op cit.*, p. 570.

³⁵² *Ibid.*, p. 572. Emphasis added. It should also be noted that Muhammad Mizanur Rahaman et al. emphasizes that WFD contains clear instructions for public participation with regards to River Basin Management Plans.

the WFD does not contain provisions on poverty reduction. Sixthly, whereas the IWRM calls for a “human-oriented” approach, the WFD adopts a “technology-oriented” approach. Seventhly, the WFD “provides an appropriate institutional role by anchoring co- ordination at the highest apex level”, contrary to IWRM understanding which recommends developing “responsibilities at the lowest appropriate level”.³⁵³ Beside these misfits, Larsen noted the fact that the WFD also neglects the way how water is used as an input to the economy is recognized.³⁵⁴ Last but not the least, it is claimed that the WFD ignores the need for “further water development and balancing of multiple policy goals”.³⁵⁵

As the discussion above summarizes, there is a continuing debate on the compatibility of WFD with the IWRM framework. It would be argued that the implementation pathways of the WFD will reveal a more complete and accurate picture than the text itself which would enable making more reliable analyses concerning the liaison between the principles advocated by the IWRM and the WFD in practice. All in all, it could be concluded that even though the WFD is not the true reflection of the IWRM approach as such, it is the case that reflections of many of the elements of the IWRM could be found within the WFD. It should be noted that the WFD is tailored to specific EU priorities, which makes an expectation for a “perfect fit” between the WFD and the IWRM not realistic, and perhaps not desirable. In this context, the WFD could be regarded as a step towards application of IWRM paradigm with a European style.

Another argument with respect to WFD is that there is a gap between the scientific approach that WFD introduces throughout its text and the political approach it necessitates in its implementation, particularly in the long-term. As it is discussed

³⁵³ *Ibid.*, p. 573.

³⁵⁴ Henrik Larsen, *op. cit.*

³⁵⁵ *Ibid.*

above, the WFD is produced after a series of intensive political negotiations. However, as van Leussen et al. argued, at the end of the process, the WFD “reads like a scientific text”. First implementation activities of the WFD confirm this scientific approach. For instance, the preparations of Characterization Reports are done in scientific way. Second example is so-called “pilot projects”³⁵⁶ which are also prepared with a scientific focus. Conversely, the application of WFD will, in the medium to long term, interact and possibly conflict with human activities in the modern society (e.g. agriculture, industry, hydropower, etc.).³⁵⁷ To illustrate, one of the scenarios indicate that the implementation of the WFD, in the long run, could in a reduction in agricultural activities in the Netherlands by 67%.³⁵⁸ Another example could be the Turkish official view on the danger that WFD could instigate for its hydropower development activities.³⁵⁹ As it is acknowledged in “Draft National Implementation Plan- Water Framework Directive (2000/60/EC)” there is a risk, with regard to WFD objectives, for realization of Turkey’s aspirations to continue constructions of dams and flood embankments.³⁶⁰

The innovations of the WFD, as argued by some experts, will necessitate new forms of administration, new networks, and new modes of consensual arrangements. According to some, all these novelties signal a radical transition from “government” to “governance” under the leadership of the State. This is also called as “State coordinated governance”. Hence, despite a participatory process is proposed, the Member States will be responsible for the bulk of the work of implementation. Maria Kaika underlined that nation-states will remain central to the implementation of the WFD, in a sharp contrast to such ideas proclaimed “the exile” or “the retreat of the

³⁵⁶ Win van Leussen, Erik van Slobbe and Georg Meiners, *op. cit.*, p. 16.

³⁵⁷ Danish Ministry of Environment, *Environmental Objectives of the Water Framework Directive*, Letter to the Water Directors of the European Union, Accession Countries, Norway and Switzerland; Copenhagen, November 10, 2003, pp. 1-2.

³⁵⁸ Win van Leussen, Erik van Slobbe and Georg Meiners, *op. cit.*

³⁵⁹ Republic of Turkey, Ministry of Environment and Forestry, *op. cit.*, p. 23.

³⁶⁰ *Ibid.*

State”.³⁶¹ Therefore, the Member States will be the ultimate responsible for satisfaction of the requirements laid down in the Directive. Considering the nature of changes in water management policy, Member State responsibility is also regarded as significant. Although alterations to water management policies may originate from many actors, the State involvement is critical for the success of these changes.³⁶² As “water management and its transformation is inherently political and often slow”³⁶³, and it creates winners, losers, and outsiders³⁶⁴, the state action will remain to be essential as a balancer.

The implementation of the WFD in Member States requires huge amounts of investments. Large portions of costs associated with WFD implementation will bear on the Member States. Setting up new institutions and modifying existing ones will be both financially and administratively difficult. However, as Member States want to reduce the financial burden of the implementation, they will most probably out-source those costs onto the private sector³⁶⁵. In other words, instead of bearing costs of implementation and expanding the public domain, Member States will likely open up new markets for water industry as this could be easier to do than developing new taxes, new bureaucracies and investing in new water related infrastructure. This, in

³⁶¹ Under intense influence of globalization, many tasks once handled by state will be -and actually is being – transferred to non-state actors. Advocates of globalization such as Susan Strange or Kenichi Ohmae proposed that economic globalization signals the triumph of the market over the nation-state. For an analysis of the subject, see Nilüfer Karacasulu Göksel, “Globalization and the State”, *Perceptions*, Volume 9, March- May 2004, p. 6. Available online at <http://www.sam.gov.tr/perceptions/Volume9/March-May2004/1Nil%C3%BCferKaracasulu.pdf>, accessed on 5.1.2010.

³⁶² Peter P. Mollinga, *op. cit.*, “A Strategic.....”, p. 712.

³⁶³ *Ibid.*, p. 705.

³⁶⁴ *Ibid.*

³⁶⁵ Among costs of implementation, redesigning of the infrastructure in the agricultural sector is a major one. Agriculture is expected to bear a major share of WFD implementation costs as it is compelled to reduce the emission of diffuse water pollutants. Other costs of implementation could be listed as follows: point source reductions (by industry and water services), remediation costs, and monitoring and assessment costs.

turn, means the acceleration of privatization. Thus, the private water industry is said to be the biggest winner of the WFD. The private industry will also greatly benefit from the environmental concerns attached to the WFD. The full-cost-pricing rule enables the private water industry to increase water prices in the name of environmental protection. Apart from this, as “polluter-pays principle” asserts in its very wording, not the supplier of water, but the polluter (i.e. the users such as households, industries and agricultural producers) will pay the “clean up” costs.³⁶⁶

Apart from these generic arguments which analyze the WFD through an across-the-board approach, there are significant views which focus on particular provisions of the WFD and raise critical issues around them. These principally include arguments on public participation, rearrangement of administrative units on the basis of river basins, and provisions related to management of transboundary waters.

The manner in which the principle of “public participation” is handled within the WFD (Art. 14) is severely criticized on several grounds, as well. The very text of the WFD does not provide any guarantee for an inclusive participatory process, and therefore, well-funded and experienced groups will have a structural advantage in the implementation stages of the Directive. Although Article 14 provides a basic prescription for active involvement of the affected and/or interested parties, the real application of the written rules will be at the hands of each Member State. Thus, a participatory implementation process of the WFD can therefore not be taken for granted.³⁶⁷ As argued by Hooper, and Mostert et al., the role of facilitators and leadership remains crucial for such participatory governance process which should be based on an approach incorporating social learning.³⁶⁸ What is more, the meaning

³⁶⁶ Maria Kaika, *op. cit.*, “The Water Framework...”, p. 306.

³⁶⁷ Muhammad Mizanur Rahaman et al., *op. cit.*, p. 572.

³⁶⁸ Bruce Hooper, *Integrated river basin governance: learning from international Experience*, IWA Publishing, Carbondale, 2005; and Erik Mostert, Claudia Pahl-Wostl, Yvonne Rees, Brad Searle, David Tábara and Joanne Tippett, “Social learning in European river-basin management: barriers and fostering mechanisms from 10 river basins”, in *Ecology and Society*, Vol. 12, No. 1, 2007, p. 19, also available online at <http://www.ecologyandsociety.org/viewissue.php?sf=28> accessed on 10.10.2010, cited in Francesc Cots, J. David Tábara, Darryn McEvoy and Saskia Werners, “Climate Change and Water, Adaptive management through transboundary cooperation: The Case of

of “participation” seems unclear. The meaning of it could range from “being simply informed” to “actively taking part in decision making processes”.³⁶⁹ A streamlined culture of participation cannot easily be achieved and implementation will considerably vary among Member States. Within the context of public participation, there are also the difficulties associated with the concept of uncertainty³⁷⁰. These difficulties were discussed in a case study focusing on Lower Saxony, Germany, by Kastens et al.³⁷¹ Although the burgeoning of good examples of active participation in the research area are mentioned, authors of the study still informs that there is a continual need for “true commitment of both authorities in charge and the stakeholders”. According to them, this commitment is essential to support social learning which constitute an indispensable element in public participation. The study of Kastens et al. demonstrated that there is a lack of transparency with respect to the authorities in charge.³⁷² This could hinder the realization of successful participatory processes³⁷³. Another difficulty with the real implementation of public participation in the WFD context is raised by William Howarth, who argued that the greater issues of implementation which are highly technical would remain to be handled by a small

Guadiana Basin”, paper presented at *CAIWA 2007, International Conference on Adaptive and Integrated Water Management*, 12-14 November 2007, Basel, Switzerland, p. 4.

³⁶⁹ For a discussion of participation, see Jacko A. van Ast and Sander P. Boot, “Participation in European Water Policy”, *Physics and Chemistry of the Earth*, Vol. 28, 2003, pp. 555-562. Also see, Adam Harrison et al., *op. cit.*, p. 3.

³⁷⁰ Uncertainties refer to circumstances where “there is not a unique and complete understanding of the system to be managed”. See Marcela Brugnach, Art Dewulf, Claudia Pahl-Wostl and Tharsi Taillieu, “Towards a Relational Concept of Uncertainty: About Knowing too Little, Knowing too Differently and Accepting not to Know”, paper presented in the *14th International Conference on Multi-Organisational Partnerships, Alliances and Networks (MOPAN)*, 28-29 June 2007, Leuven, the Netherlands.

³⁷¹ Britta Kastens, Ilke Borowski and Dagmar Ridder, *op. cit.*, pp. 1-22.

³⁷² *Ibid.*, p. 19.

³⁷³ Successful participatory processes need to be transparent (European Communities, *Guidance on Public Participation in Relation to the Water Framework Directive: Active Involvement, Consultation, and Public Access to Information*, Luxembourg, 2002, p. 78).

number of specialists. Hence, the contribution of the public participation will likely be limited only to “minor aspects of implementation”.³⁷⁴

The administrative re-organization required by the WFD includes some noteworthy challenges. The main responsibilities of River Basin Districts were not defined directly in the Directive. Yet, it can be derived from the wording of the WFD that river basin districts will be the main responsible unit, contrary to previous practices experienced in many of the Member States. As Kaika noted there are many local authorities having serious concerns on the risk of losing their power at the expense of new river basin organizations.³⁷⁵ Another important difficulty is to rearrange the regulatory water bodies -and perhaps administrative bodies- so that they would comply with the hydrological boundaries. For particular Member States, this rearrangement could initiate unexpected and prolonged conflicts among intra-state political actors.

The requirement of making administrative rearrangements on the basis of river basins (Art. 3) is also criticized on a theoretical level, through an understanding which sees the “river basin” rather as an instrument used by political authorities in reinforcing their status in the eyes of the public. In this regard, according to some experts, one of the main aspects of the WFD, namely using “river basins” as the ultimate spatial unit of management, could transform the WFD into a “hegemonic” project. François Molle, for instance, argues that “beyond its relevance as a geographical unit for the study of hydrology or for water resources development purposes, the river basin is also a political and ideological construct” and “it was used by political establishments, both in the North and in the South, to symbolically legitimize and strengthen their power”³⁷⁶.

³⁷⁴ William Howarth, *op. cit.*, p. 417.

³⁷⁵ Ben Page and Maria Kaika, *op. cit.*, “The EU Water Framework Directive: Part 2...”, p. 335.

³⁷⁶ François Molle, *op. cit.*, p. 23.

Choosing river basin as the main unit for action could also result in significant “misfits” between the actions pursued and the level of implementation. The main reason for this is the fact that water management is a multifaceted policy area which renders adoption of a single unit for action quite difficult. One of the common examples given in this context is the situation of groundwaters. As it is defined, the river basin covers the areas where surface waters drain into a single point. Thus, groundwaters are not included within the river basin concept. Groundwaters may not follow the river basin boundaries. They are partially independent from the surface waters. The second example is the existence of long-established administrative (be national or international) boundaries which also have potential to hinder the actions on the basis of river basins.

Although the WFD seems to be strong with regard to river basins lying entirely in the EU, with regards to the trans-boundary issues, the river basins extending beyond the Community borders, the wording of the WFD is weak and seems far from dictating firmly this hegemonic idea to its Member States. There are no enforcing measures proposed, and there are no sanctions mentioned in case of non-compliance with regards to transboundary river basin management.³⁷⁷ From one point of view, as the WFD *is* framework legislation, leaving room for Member States, particularly with respect to transboundary river basins, it is not surprising that the WFD proposes a weak norm.

However, the fact that the WFD articles concerning transboundary rivers only amount to a “soft-law”, also raised doubts about the general success of the Directive at large, for nearly 2/3 of the total area in the EU are covered by transboundary river basin districts: “With regard to the “soft” requirements in the WFD concerning

³⁷⁷ See for instance, Per Stålnacke and Eva Skarbøvik, “Monitoring and assessment according to the EU WFD and implications for transboundary waters”, paper presented at *UN-ECE Seminar on Monitoring and Assessment of Transboundary Waters*, 16-17 June 2008 in Geneva, Switzerland, pp. 6-7.

international RBDs it is uncertain if the directive's ambition of management according to river basins actually will be fulfilled".³⁷⁸

Within the context of transboundary waters, it is argued by some experts that the level of uncertainty with respect to WFD provisions for management of transboundary waters tend to be high. In a research project financed by MANTRA-East, Integrated Strategies for the Management of Transboundary Waters on the Eastern European Fringe, EU Fifth Framework Program³⁷⁹, Nilsson et al. studied the information provided by the Member States and candidate countries. A questionnaire³⁸⁰ and the preliminary proposals of Member States are used to gather the information required. The conclusions of the study of Nilsson et al. provided that "the WFD allows for quite different interpretations regarding identification and management of international RBDs" and "many countries appear to be highly uncertain as to how to interpret and implement the WFD for international RBDs; thus, it appears imperative to establish a working group under the Common Implementation Strategy to specifically address this dimension."³⁸¹

³⁷⁸ Susanna Nilsson et al., *op. cit.*, p. 18.

³⁷⁹ Contract no: EVK1-CT-2000-00076.

³⁸⁰ The questionnaire is sent to Member States and candidate countries in February 2003. In the first part of the questionnaire, countries were asked to list the names of all RBDs in their country, specify the international RBDs and the countries sharing the districts. In the second part of the questionnaire, countries were asked to provide information about presence of international water commissions and plans or ambitions for the RBMPs.

³⁸¹ Susanna Nilsson et al., *op. cit.*

3.6. The Implementation of the WFD

The issue of “implementation” has long been one of the challenges that water policy of the EU faces. It is important to note that water policy in the EU was not quite successful in yielding desired results. In the words of Commission, current status of EU waters is “worse than expected”.³⁸² As Christoph Demmke asserted, hardly any water related directive has been completely implemented and applied by the Member States.³⁸³ As the Commission shows, there has always been a level of difference among Member States, in terms of implementation, with regard to water related Directives. This means while some of Member states were better in implementing water related Directives, some were lagging behind.³⁸⁴ Overall, there are considerable gaps in implementation at the Community level, even with regards to those water related Directives that have been adopted a decade ago or more. For instance, the Commission reported that, as of 1 January 2003, the Urban Waste Water Treatment Directive 91/271/EEC (UWWTD) was implemented only by 81%.³⁸⁵ Given this context, the EEB Handbook on WFD raised the question “whether the new WFD will be able to ensure a better implementation and enforcement of water law than in the past.”³⁸⁶

The implementation of the WFD raises challenges, which are widely shared by Member States. These include;

³⁸² European Commission, *op. cit.*, “Communication from...”, 2007, p. 3.

³⁸³ Cited from Christoph Demmke, Towards Effective Environmental Regulation: Innovative Approaches in Implementing and Enforcing European Environmental Law and Policy, in *European Institute of Public Administration*, October 2000, in European Environmental Bureau (EEB), *op. cit.* “Handbook on EU Water...”, p. 5.

³⁸⁴ European Commission, *op. cit.*, “Communication from...”, 2007, p. 4.

³⁸⁵ *Ibid.*

³⁸⁶ European Environmental Bureau, *op. cit.*, “Handbook on EU Water...”.

- An extremely demanding timetable;
- The complexity of the text and the diversity of possible solutions to scientific, technical and practical questions;
- The problem of capacity building and an incomplete technical and scientific basis with a large number of fundamental issues in Annex II and V, which need further elaboration and substantiation to make the transition from principles and general definitions to practical implementation successful.³⁸⁷

3.6.1. Common Implementation Strategy

To overcome the difficulties mentioned above, and to ensure the proper implementation of the WFD in Member States, EC developed a WFD Common Implementation Strategy (CIS), which was agreed in May 2001. The aim of this CIS is to allow, as far as possible, a coherent and harmonious implementation of the WFD throughout all the Member States. Most of the challenges and difficulties arising will inevitably be common to all Member States and many of the European river basins are shared, crossing administrative and territorial borders, where a common understanding and approach is crucial to successful and effective implementation. It is considered in EU circles that a Common Strategy could limit the risks of un-streamlined application of the Directive and subsequent dispute.

The CIS is based on the following elements (as section 2.3. of the official text of CIS reads);

- The necessity to share information between Member States and the European Commission

³⁸⁷ Water Directors of the EU, Norway and Switzerland, *Common Strategy on the Implementation of the Water Framework Directive*, May 2001, p. 1.

- The need to form and involve the public and to raise public awareness about the key elements of the WFD and issues linked to its implementation
- The need to ensure coherence between the implementation of the WFD and other sectoral and structural policies
- The need to ensure coherence between the implementation of the WFD, other water Directives, and process and product oriented Directives
- The need to integrate activities on different horizontal ('cross-cutting') issues for the effective development of river basin management plans and WFD implementation
- The necessity for capacity building in Member States for effective implementation of the WFD
- The need to involve stakeholders and civil society in implementation of the WFD
- The need to promote a common attitude towards EU-Candidate countries of Central and Eastern Europe with regard to their involvement (especially for shared international river basin districts)
- The need to establish working groups and develop informal guidance on key aspects of the WFD.

The WFD CIS is built around four "Key Activities" (WFD CIS document section 2.4);

- Sharing of information
- Management of information and data
- Development of guidance on technical issues
- Application, testing and validation of guidance.

Within the “Key Activity” on development of technical guidance for specific WFD implementation issues, 10 Working Groups, under the leadership of one or more Member States, have been established.

As a result of this process, several informal guidelines, or so called “Guidance Documents” have been prepared on key issues like planning process, public participation, economic analysis etc. The final goal for all the activities around the CIS is to facilitate a coherent and harmonious implementation of the WFD. Yet, basically two questions have potential to overshadow the outcomes that have been aimed by the Common Implementation Strategy and subsequent Guidance Documents. The first question is related with the “legality” of the CIS and Guidance Documents.³⁸⁸ From its inception, CIS process is known to be non-binding. This feature of CIS process raises some reasonable doubt on the issue of the enforceability of the Guidance Documents. Because it is a non-binding practice, there will be no authority to enforce the rules and procedures of the Guidance Documents. The second question is related with the “legitimacy” and “accountability” of the measures that have been proposed by the Guidance Documents.³⁸⁹ When detailed prescriptions about the measures are determined via top level civil servants in the framework of CIS, there will be no room for national negotiations in Member States’ Parliaments.³⁹⁰ This, in turn could become an obstacle for national level stakeholders’ involvement in the implementation process, and a factor for weakening the chances for local level initiatives to surface.

All in all, despite the questionable parts, it is reported that the CIS process still has some added value particularly for new Member States, such as Romania and Bulgaria³⁹¹. For Danka Thalmeinerova, an expert from Global Water Partnership

³⁸⁸ David Aubin and Frédéric Varone, “The Evolution of European Water Policy”, in Ingrid Kissling-Näf and Stefan Kuks (eds.), *The Evolution of National Water Regimes in Europe: Transitions in Water Rights and Water Policies*, Kluwer Academic Publishers, Dordrecht, 2004, p. 82.

³⁸⁹ *Ibid.*

³⁹⁰ *Ibid.*

³⁹¹ Romania and Bulgaria have become EU Member States, on January 1, 2007.

working specifically on the transboundary cooperation in Danube basin, the guidelines prepared through the studies of working groups appeared to be “quite helpful” because of the fact that, specifically in new Member States there was no any basis for determination of common standards as required by the WFD prior to the process of development of these guidelines.³⁹² Thus, the contributing effect of CIS process is more evident with regard to new Member States’ implementation of WFD.

3.6.2. The Implementation of WFD in Practice

In 2007, the European Commission issued a report³⁹³ evaluating the implementation performances of Member States. As it can be perceived from this document, the implementation of the WFD involves real challenges for Member States, as well as for different segments of European societies, more than previously expected. As of 2007, the European Commission declared that while “the actual percentage of water bodies meeting all the WFD objectives is low” on the whole; with regards to some of Member States it is as low as 1%.³⁹⁴ It is interesting to note that even the requirement of “legal transposition” by 22 December 2003 was not satisfied by most of the Member States (EU-15 at that time)³⁹⁵. In this context, the Commission started eleven infringement cases in front of the European Court of Justice.³⁹⁶ Additionally, the transpositions are reported be in “poor” quality overall, with nineteen Member States’ transpositions are identified to have “serious shortcomings” with respect to Articles 4, 9 or 14, in particular.³⁹⁷ With regards to the requirement of “reporting”, the Commission launched nine cases of infringement for delayed reporting. The Commission exposed its satisfaction with the

³⁹² Danka Thalmeinerova, Global Water Partnership (GWP) expert, personal interview, Stockholm, April 2011.

³⁹³ European Commission, *op. cit.*, “Communication from...”, 2007.

³⁹⁴ *Ibid.*, p. 4.

³⁹⁵ Only 4 out of 15 Member States transposed the WFD in accordance with the deadline.

³⁹⁶ *Ibid.*, p. 6.

³⁹⁷ *Ibid.*

capabilities of administrative arrangements (Article 3) in guaranteeing “proper implementation”, yet with a reservation on the issue of coordination within Member States: “[I]t is, however, often unclear how the coordination arrangements between different authorities within the Member States are functioning.”³⁹⁸

In this context, the monitoring programs for the assessment of the status of surface water and groundwater aiming at establishing a comprehensive and coherent overview of water status in each RBD should have become operational by December 22, 2006.³⁹⁹ The European Commission, relying upon the information provided by the Member States, prepared a Report on programs of monitoring of water status, on April 1st, 2009.⁴⁰⁰ The technical evaluation conducted by the Commission has found out “a number of gaps and deficiencies” in the design of monitoring programs.⁴⁰¹ With regard to requirement of reporting, apart from the particular cases of Greece and Malta, the former of which did not report at all, and the latter did not report on monitoring programs concerning surface waters; there are gaps existing in individual RBDs or individual water categories.⁴⁰² With respect to monitoring programs in transboundary river basins, the Commission emphasized the fact that only a very few countries reported that they were using the international coordination mechanisms in establishing their monitoring programs (these include Germany, Ireland, the Netherlands, Romania and the United Kingdom)⁴⁰³. Concerning the substance of the monitoring programs, the Commission upholds the argument that the methods for biological quality elements remain non-existent in many RBDs. This is particularly

³⁹⁸ *Ibid.*

³⁹⁹ Article 8.1 and Article 8.2.

⁴⁰⁰ The Report is accompanied by a “Commission Staff Working Document” on the same topic. This Working Document gives details on the results and on the methodological approach of the Commission in analyzing the information received from Member States.

⁴⁰¹ European Commission, *op. cit.*, “Communication from...”, p. 5.

⁴⁰² *Ibid.*

⁴⁰³ *Ibid.*, p. 6.

so with respect to those Member States joined in either in 2004 or in 2007⁴⁰⁴. In general, the Commission declares its dissatisfaction with the level of precision and confidence of monitoring programs in Member States. The issue whether the monitoring programs will provide a coherent and comprehensive assessment of water bodies' status in RBDs and contribute to the development of programs of measures remains to be ambivalent.⁴⁰⁵

Furthermore, following a series of quantitative comparison analyses, a snapshot report by the EEB in July 2010 concluded that “this snapshot has raised serious doubts over the effectiveness of the WFD implementation to change specific and well-known unsustainable water management practices”.⁴⁰⁶ All these evidence suggest that the challenge of implementation will be an enduring one for the case of WFD, as well. Given the history of non-compliance in EU water policy, which resulted in the present situation in Europe with undesirable results and the escape clauses (see below), the WFD implementation process will not be straight-forward.

3.7. Exemptions in the Water Framework Directive

It is often stated that the recent EU environmental legislation is “characterized by its greater dependence upon procedural, rather than substantive regulatory approaches”.⁴⁰⁷ The recent trend of EU environmental legislation which is being more context-oriented, and demanding less of harmonization was discussed in Chapter 3. This generic critique of the recent environmental legislation in the EU has also reflections on the WFD. In the same token, WFD is said to be illustrative of this trend, the so-called shift from “government to governance”⁴⁰⁸. The nature of WFD as

⁴⁰⁴ Ten countries joined the EU on January 1, 2004. These include Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia. Bulgaria and Romania joined the EU on January 1, 2007.

⁴⁰⁵ European Commission, *op. cit.*, “Communication from...”, p. 6.

⁴⁰⁶ European Environmental Bureau (EEB), *op. cit.*, “10 Years of the Water...”, p. 4.

⁴⁰⁷ William Howarth, *op. cit.*, p. 394.

⁴⁰⁸ Maria Kaika and Ben Page, *op. cit.*, p. 314.

an example of recent EU environmental legislation has ramifications for its implementation. In this sense, similar to the critical views on the recent EU environmental legislation, several concerns appeared with regards to the enforceability of the WFD. As summarized by David Grimeaud, for instance, these include being insufficiently stringent in its legal formulation and too generous in the discretion that it gives to Member States. Plus, despite these limitations, according to Grimeaud, the WFD remains to be over ambitious in its objectives, casting doubts about its enforceability.⁴⁰⁹

There are two types of requirements in the WFD, according to Howarth: “procedural” and “substantive”.⁴¹⁰ On the whole, Howarth concludes that the innovative part of the WFD, which he called the “new content” of the WFD, remains as “strongly procedural”. The substantive part of the WFD comprised the re-enactments of pre-existing legislation.

3.7.1. Flexibility in the WFD

Concerning the degree of flexibility of the WFD, there are several factors at play. WFD remains to be a text of compromise. Differences in national interests, interests of lobbying organizations, and interests of EU organs were all tried to be balanced in the final text. Plus, it is in the generic nature of the Directives that they leave Member States free to choose their way to proceed in reaching the results that is being demanded by the Directive concerned. Directives are binding with respect to their final aim. The legal position of the WFD, as well as other directives, is based on article 249 paragraph 3 of the Treaty of the European Community (Treaty of Nice, 2001). The article states that “a directive shall be binding as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods”. In practice, this means that the

⁴⁰⁹ David Grimeaud, *op. cit.*, pp. 41-51, pp. 88-97, pp. 125-135.

⁴¹⁰ William Howarth, *op cit.*, p. 410.

member states have a certain degree of flexibility and discretion in implementing the objectives of the WFD. Finally, the overarching principle of subsidiarity should be taken into account in analyzing any Community policy. Within this summarized context, the WFD acknowledges the diversity across Europe, and upholds the principle of subsidiarity, giving priority to Member States' discretion:

There are diverse conditions and needs in the Community which require different specific solutions. This diversity should be taken into account in the planning and execution of measures to ensure protection and sustainable use of water in the framework of the river basin. Decisions should be taken as close as possible to the locations where water is affected or used. Priority should be given to action within the responsibility of Member States through the drawing up of programs of measures adjusted to regional and local conditions.⁴¹¹

Although being not binding in legal terms, the statements in Recitals are important as they are “used for the interpretation of the different articles”.⁴¹²

Apart from the sources of flexibility provided above, the WFD provides certain conditions where Member States could evade meeting with the environmental objectives. As studied by Elisabeth Grönlund and Tapio Määttä, there are six possible categories of circumstances where exemptions become feasible to evoke.⁴¹³

The first category of circumstances is associated with artificial and heavily modified waters. It should be noted that, the requirement of “good ecological status” does not

⁴¹¹ Recital 13.

⁴¹² Marleen Van Rijswick, *op. cit.*, “European Water Law”, p. 22.

⁴¹³ Elisabeth Grönlund and Tapio Määttä, *op.cit.*, pp. 221-226.

apply for those water bodies. They are, instead, subject to “good ecological potential”. A water body could be placed under this type of water bodies, therefore become subject to less stringent status, only if the changes to hydro-morphological characteristics needed to achieve “good ecological status” would have significant negative influence on “the wider environment, navigation, recreation, water storage, power generation, flood protection, water regulation, irrigation, land drainage, or other equally important sustainable human development activities”.⁴¹⁴ For White and Howe, this exemption is a serious “loophole” in the Directive which could considerably reduce the scope and effectiveness of the WFD, if remains unresolved.⁴¹⁵ Similarly, WWF also declared, back in 2001 that up to 90% of the EU water could be labeled as being “heavily modified”.⁴¹⁶

The second exemption case is related to the water bodies subject to specific Community legislation, other than the WFD. For these waters, the protection level will be determined by the relevant legislation⁴¹⁷, and this level of protection should be met by 2015. Article 6 and 7 and Annex IV of the WFD lists these areas as follows: “a) areas designated for the abstraction of drinking water and for the protection of economically significant aquatic species; b) areas regulated by the Bathing Water Directive (76/160/EEC), the nitrate-vulnerable zones of the Nitrate Directive 91/676/EEC), and areas sensitive to eutrophication by nitrogen and phosphorus under Urban Wastewater Directive (91/271/EEC); c) designated protection areas under the Habitat and Wild Bird Directives (92/43/EEC, 79/409/EEC, respectively)”.⁴¹⁸

⁴¹⁴ *Ibid.*, pp. 222-223.

⁴¹⁵ Ian White and Joe Howe, *op. cit.*

⁴¹⁶ World Wide Fund for Nature, *The EU Water Framework Directive: A Seminar Series on Water*, Brussels, 29-30 May 2001.

⁴¹⁷ It should be noted that, application of relevant legislation should not cause a lower level of protection.

⁴¹⁸ Elisabeth Grönlund and Tapio Määttä, *op. cit.*, p. 223.

The third exemption is obtained, as stipulated by Article 4.4, via deferring the deadlines for meeting environmental objectives by a certain period of time. This, indeed, means a delay in meeting the environmental objectives of the WFD. Achieving environmental objectives could be delayed for two RBMPs updates, i.e. for 12 years. The precondition of this exemption could either be the technical reason(s) and/or disproportionate economic costs. Thus, Member States need to show and explain that some technical reason(s), and/or disproportionate costs, and/or natural conditions are preventing the achievement of environmental objectives within the original timetable of the WFD. The grounds of argument and the proposed timetable for achieving the environmental objectives must be included in the RBMP. Member States must also ensure that the delay would not cause further deterioration to the current status of the water body. Besides, a rather vague exemption is also available within this phased achievement context, in the Article 4.4.c, as indefinite extension is possible “in cases where the natural conditions are such that the objectives cannot be achieved within this (additional 12 years) period”⁴¹⁹ According to some experts, these ambiguities in the meanings of some of the provisions used in the WFD will possibly cause controversies between the Member States and the Commission and will become legal cases in the near future. According to this view, their operational meaning will ultimately be determined by the European Court of Justice.⁴²⁰

The fourth flexibility is associated with “less stringent environmental objectives”. Article 4.5 specifies two main prerequisites for this flexibility: that specific water body should be “so affected by human activity”⁴²¹, and/or “their natural condition is

⁴¹⁹ Article 4.4.c, content in brackets added.

⁴²⁰ Dave Huitema, Vrije Universiteit, personal interview, Amsterdam, January 2008.

⁴²¹ Article 4.5. reads “[M]ember States may aim to achieve less stringent environmental objectives (...) for specific bodies of water when they are so affected by human activity (...)”. (Article 4.5.). According to Annex II, parag. 1.4., these activities include “urban, industrial, agricultural and other installations and activities” which cause point, or non-point pollutions.

such that the achievement of these objectives would be infeasible or disproportionately expensive”. Additionally, four conditions are to be realized by Member States in the context of this exemption. Firstly, environmental and socio-economic needs served by these human activities cannot be realized by other options. Secondly, the highest ecological and chemical status possible is achieved with regards to surface water, and for groundwaters, the least possible change to good groundwater status is achieved⁴²². Thirdly, further deterioration should be prevented. And fourthly, the less stringent environmental objectives must be established in RBMPs, including their reasons.

The fifth category of flexibility is laid down by Article 4.6, according to which temporary deteriorations are permissible in circumstances of exceptional and reasonably unforeseeable natural causes, or *force majeure* situations (e.g. extreme floods, prolonged droughts, or accidents). Several conditions are to be met in the framework of this category: all practicable measures are to be taken by Member States to prevent further deterioration, the exceptional or reasonably unforeseeable circumstances, including their effects⁴²³, and the measures⁴²⁴ taken against them must be stated in the RBMPs.

Finally, it will not be a breach of the WFD as stated by Article 4.7, when “failure to achieve good groundwater status, good ecological status or, where relevant, good ecological potential or to prevent deterioration in the status of a body of surface water or groundwater is the result of new modifications to the physical characteristics of a surface water body or alterations to the level of bodies of

⁴²² For surface waters, Article 4.5.b. states “the highest ecological and chemical status possible is achieved, given impacts that could not reasonably have been avoided due to the nature of the human activity, or pollution”. A similar statement is used for groundwaters, too. For Grönlund and Määttä, this provision is “quite unclear even obscure”, simply because it provides a big margin of discretion for Member States. Grönlund and Määttä conclude that this provision could be utilized for “almost any kind of water body”. See, Elisabeth Grönlund and Tapio Määttä, *op. cit.*, pp. 223-224.

⁴²³ Effects of these exceptional or reasonably unforeseeable circumstances are subject to annual reviews.

⁴²⁴ Summary of the effects *and* measures are to be provided in the next update of the RBMPs.

groundwater, or failure to prevent deterioration from high status to good status of a body of surface water is the result of new sustainable human development activities.” However, there are certain conditions for this provision to apply. First, all practicable measures to reduce adverse impacts of these changes must be taken. Second, the reasons for these changes must be stated in RBMPs and must be updated in every six years. Third, Member States must demonstrate “overriding public interest” pertaining to these changes, and the benefits of the new changes to human health, or to the maintenance of human safety or to sustainable development must outweigh the environmental objectives of the WFD. Fourth, it is required that benefits of the new modifications cannot be achieved by other means because of technical unfeasibility and disproportionate costs. For Grönlund and Määttä, this final category applies to large projects in the future. Grönlund and Määttä implies that the authorization procedures applied to such large infrastructure projects are likely to be more stringent at the national level than the provisions in the WFD requires.⁴²⁵

Which is common to all these exemptions is that they must be contained in the river basin management plans. Also, Member States are expected to clearly explain the grounds of their choice, for each case they demand an exemption, in accordance with the legal requirements identified in relevant Article(s). Therefore, it will be up to Member States to demand as many as exemptions provided that they are written in the RBMPs, with the reasons and explanations for demanding them. William Howarth, upon reviewing the implementation processes of the WFD in England and Wales, inductively asserts the argument that “various derogations, exceptions and defenses under the Directive are likely to be exploited to the full in minimizing the cost on implementation, with commensurate limitation to environmental improvement.”⁴²⁶

⁴²⁵ Elisabeth Grönlund and Tapio Määttä say, “projects subject to this provision might also face more stringent permission authorization procedures at the national level.” (p. 224).

⁴²⁶ William Howarth, *op. cit.*, p. 417.

In sum, there is a set of possibilities of exemptions in the WFD. The existence of these exemptions are attributable both to the recent trend of environmental legislation of the EU, which is characterized by the increased priority of context orientation; but also to the fact that WFD appeared as a compromised text out of intense negotiations among multiple stakeholders in different levels.

3.8. Conclusion

This Chapter presented a thorough discussion on the Water Framework Directive. The WFD will remain to be the basic legal text applicable in water policy in European Union for years to come. In this respect, complying with its norms and rules will be a requirement for Member States of the Union. Furthermore, since it has become part of the *acquis communautaire*, i.e. part of the adopted body of legislation in the EU; candidate countries, too, are obliged to abide by the WFD rules. As a candidate country, negotiating with the EU on becoming a Member State, Turkey will be obliged to abide by WFD rules by its time of membership. Turkey declared the date of harmonization with the WFD rules as 2027 (with a possible extension into 2033)⁴²⁷. Therefore, it would be expected for Turkey to make WFD operational by 2033 at the latest.

Harmonization with the WFD necessitates the realization of water management on the basis of river basins. WFD requires the utilization of economic instruments and active involvement of public, including users. All these efforts are to be done in accordance with a timetable set out throughout the Directive. WFD's schedule is a demanding one, which put Member States under strain to perform certain tasks in limited time. The European Commission declared that the early phases of implementation resulted in only moderate levels of progress. This result is also confirmed by the EEB Snapshot Report in July 2010. All these evidence show that the implementation of WFD, if taken seriously, remains a hard undertaking for many of the Member States.

⁴²⁷ See Republic of Turkey, *op. cit.*, "Draft National...".

However, there are number of exemptions, and ambiguities in the Directive which leave Member States a considerable room for choosing their way of action. The phases of implementation, so far, justified the fact that the impact of the WFD will possibly vary among Member States. It will vary not only according to their will on the extent of exploitation of the exemptions included in the Directive, but also according to their own national water policy settings which have considerable power in determining their water management priorities, sometimes differentiated from the adopted European policies.

Within this framework, the WFD is expected to cause some degree of influence on the policy networks, institutions and legal framework that are currently prevailing in water management in Turkey. This influence will be dependent upon two set of factors. The first is the stable character of established water institutions in national settings. This was exemplified by the discussion in the previous Chapter concerning the impact of European environmental legislation on national environmental policies. In addition to the variable resilience of national institutions to change, the level of flexibilities inserted in the WFD forms the second set of factors enabling Member States to sustain their institutions via implementing only procedural aspects of the WFD and abstaining from really changing the substance of their water institutions. This question will be investigated for the Turkish case in the next Chapter.

As indicated in Chapter 1, Turkey's water management is a combination of numerous laws, and a significant number of responsible organizations, a structure which is usually regarded as complex and fragmented. Whether the WFD will help Turkey to overcome these problems and contribute to the establishment of a water management that is compatible with the WFD, or will add up extra difficulties remains to be seen. Next Chapter will try to discuss the influence of WFD on Turkey's water management via presenting a discussion of the efforts of Turkey as well as analyzing the Commission's view of the progress that Turkey has been making. The level of implementation achieved by Turkey would reveal which dimension(s) of Turkey's water management policy is/are more adaptive to European impact.

CHAPTER 4

Legal Setting and Discourses in Water Management in Turkey

4.1. Introduction

Following the collapse of the Ottoman Empire and the subsequent War of Liberation (1919-1922), the Republic of Turkey was founded in 1923. The Republic tried to make a fresh start and adopted western style laws and by-laws in order to develop the war-torn country. Water legislation was one of the areas founding fathers tried to modernize. Still some of the legislation governing water management issues dates back to early years of the Republic. In time, many pieces of legislation was adopted and water management in Turkey experienced many important changes. Concomitant to the changes in legal setting, various official organizations are established and/or abolished. Understanding of these changes and the main stages that Turkey's water management went through is very crucial with regards to Turkey's position vis á vis water management framework proposed by the EU.

One of the research questions of dissertation is related with the prevailing legal setting in water management policy of Turkey. It is argued that in order to conduct an accurate analysis with regard to the effects of WFD on Turkey's water management policy, one need to study not only the requirements of WFD as they are, but also the very case of Turkey. This Chapter will entail the conceptual and historical evolution of legal setting in Turkey. In this context, the chapter discusses the changes and continuities in the legal setting in Turkey's water management policy.

This chapter will present the legal setting in water management in Turkey. The Chapter begins with the historical overview of the development of legal setting of the

water management in Turkey, i.e. main legal regulations⁴²⁸. Next, major legal texts of the water management framework in Turkey will be examined. With this structure, this Chapter tries to show draw a general picture of Turkish water management.

The methodology in analyzing the water related legislation in Turkey will be an examination of the discourse embedded in legal texts. Legal texts are important sources for discourse analysis. It is noted that, the discourses should not be taken as purely social or ideational, because they can be grasped at material and technical level.⁴²⁹ It is explained that legal texts represent the material dimension of discourse. Therefore, studying the wording of and changes in legal texts, this chapter will analyze the elements of discourses that these legal texts contain. Analyzing the discourses embedded in legal texts will provide insights on the continuing and changing priorities in Turkey's water management policy. In this respect, it will enable one to make a comparison between the requirements of the WFD and the resilient practices in Turkey.

The basic arguments in the Chapter are summarized as follows: The legal framework of water management in Turkey is characterized by the lack of a comprehensive framework law; ambiguity in terms of "user rights", and roles of responsible organizations which are creating a complex and fragmented organizational structure. With regards to the protection of water quality and the issue of monitoring, the presence of legal regulations has not been translated into effective implementation and enforcement. Through analysis of legal discourses in water management policy of Turkey, three successive phases are recognizable. The first phase (first 30 years of the Republic) comprised framework legislation aiming to set water management policy on a legal ground. Individual projects and the issues of public health were other two major characteristics of this phase. Second phase (from mid-1950s to

⁴²⁸ The term "regulation" here should not be confused with the legal term Regulation. Here, it means the regulating legal texts other than laws proper.

⁴²⁹ William Walters, *op. cit.*, p. 92.

1980s) was marked by the introduction of systematic water resources development works. With the third phase, beginning from 1980s, issue of “water quality” began to gain prominence, along with the continued priority of water resources development. Finally, two themes have started to be more salient within the Turkish legislation: the recent legislation contained some elements of “decentralization” and “privatization”. This legal framework, via creating the organizational setting, has implications on the institutions and policy networks in water management in Turkey.

4.2. Water Management in Turkey: Legislative Framework

Current Turkish politico-administrative structure will be presented first in order to provide an analysis of specific legislation concerning water management issues. This general structure has some reflections on various policy sectors including water management. Therefore, the very first part of this section is devoted to the main rules and institutions governing the country across-the-board.

Turkey is a parliamentary democracy. According to the 1982 Constitution, legislative power is vested in the Turkish Grand National Assembly (TGNA), which is elected by universal suffrage. The President, elected by the TGNA, is empowered to appoint a Prime Minister.

Turkey is divided into 81 provinces⁴³⁰, 892 districts and 44402 villages⁴³¹. There are approximately 3200 municipalities, 16 of which are metropolitan municipalities.⁴³² Governors (“Vali” in Turkish) who appointed by Government Decrees are heads of provincial administrations. Governors report to the Ministry of the Interior.

⁴³⁰ Similar to French provincial administrative system, with a centralized orientation.

⁴³¹ http://www.tuik.gov.tr/PreIstatistikTablo.do?istab_id=1335, accessed on 12.03.2011.

⁴³² Metropolitan Municipalities are established when the centrum population of a city exceeds the limit of 750.000 people.

Municipalities are governed by a mayor, an assembly and a council. All are elected. Villages were headed by an elected Village Head (“Muhtar” in Turkish) and a Village Council.

4.2.1. Sources of Law

In Turkey sources of law can be listed in nine groups: Constitution, laws, decree-laws, regulations, by-laws, communiqués, circulars, international agreements, and customary law. With regards to the water management, three mostly used category of legislation are laws, decree-laws and regulations.

4.2.1.a. Constitution (“Anayasa” in Turkish)

The Constitution is the highest rank legal document of the Republic of Turkey. The Constitution, which draws the general outlines of the legal system, recognizes the rights and freedom of individuals, and defines the form of the state, is the most important legal source. Other laws cannot be contrary to the Constitution.⁴³³ The latest Constitution was adopted in a referendum in 1982. Amendments to the Constitution are prepared and approved by the TGNA. Following the approval of the President, it comes into force when published in the Official Gazette.

4.2.1.b. Laws (“Kanunlar” in Turkish)

The relevant Ministry or Council of Ministers prepares the law proposals. The draft law is sent to TGNA for evaluation by the Council of Ministers. Then it is sent to the TGNA’s related committee(s) (e.g. Legal Committee, Environmental Committee)⁴³⁴.

⁴³³ Ergun Özbudun, *Anayasa Hukuku*, T.C. Anadolu Üniversitesi Yayını, No. 1466, 2003, p. 11.

⁴³⁴ The committees (“Komisyon” in Turkish), which constitute the foundation for the legislative and supervisory activities of the Assembly, are specialized committees, which undertake activities on various subjects. They perform duties on behalf of the General Assembly. There are 17 committees in the TGNA that have been established according to the provisions of the constitution and the Rules of Procedure. The political parties, according to the proportion of their number of members, are represented in the committees. Committees, in accordance with the Article 37 of the TGNA Rules of Procedure (“İçtüzük” in Turkish), shall be discussed within 45 days. According to Article 35, committees may accept, amend, or reject the law proposals. Following the designated period (45 days

The draft law then sent to the General Assembly for discussions. After the TGNA approval, it is sent to the President. Following the signature of the President, laws are published in the Official Gazette which makes them enter them into force.⁴³⁵

4.2.1.c. Decree-laws (“Kanun Hükmünde Kararnameler” in Turkish)

In accordance with the Article 91 of the Constitution, the Parliament may authorize the Council of Ministers to issue “decree-law” which are also known as “Decrees having the force of law” (e.g. the Law establishing the Ministry of Environment was a Decree-law, No. 443). Decree-laws go into effect on the day they are published in the Official Gazette. Decree-laws come into force only for a special subject for a limited time period that is defined by a law.⁴³⁶

4.2.1.d. Regulations (“Tüzükler” in Turkish)

According to Article 115 of the Constitution, the Council of Ministers can bring out regulations to explain how the laws will be implemented. A regulation prepared by the Council of Ministers is required to be examined by the Council of State. The statute is signed by the President and published in the Official Gazette like laws. Regulations have legal force.⁴³⁷

for the main committee, to which the proposed law relates most directly; 15 days for auxillary committees, to which proposed legislation is in relation), the Government or those who proposed the legislation, may decide to transfer the proposal to the General Assembly. If the proposals are not discussed by the Committee(s) within the designated periods, they are sent to the Consultative Committee (“Danışma Kurulu” in Turkish) an organ which is responsible from, inter alia, regulating the agenda of the General Assembly. The Consultative Committee then sends the proposal to the General Assembly.

⁴³⁵ For a detailed review see Ergun Özbudun, *op. cit.*, p. 117.

⁴³⁶ *Ibid.*, pp. 130-136.

⁴³⁷ *Ibid.*, pp. 136-137.

4.2.1.e. By-laws (“Yönetmelikler” in Turkish)

According to Article 124 of the Constitution, the Prime Ministry, ministries and other public authorities can bring out written instructions on relevant laws and by-laws in their own areas of authority, or they can explain the provisions of these by-laws.

Generally a by is-law prepared by the related Ministry. Then it is sent to all related Ministries for their evaluations. Afterwards the draft by-law is submitted to the General Directorate of Development of Legislation Under-Prime Ministry for evaluation. Approved by-laws come into force when published in the Official Gazette.⁴³⁸

By-laws are made pursuant to the relevant law, and must not contain any provision contrary to that law. Also, any provision that is not covered by related law must not be contained in By-laws.

Some by-laws do not apply nation-wide (such as may apply to the Metropolitan Municipality of İstanbul). These by-laws are not required to be published in the Official Gazette.

4.2.1.f. Communiqués (“Tebliğler” in Turkish)

The procedure for adoption of communiqués is same as that for by-laws. But, it is not necessary to distribute the communiqué to related ministries for their evaluation. Communiqués must not be against the other laws and regulations.

4.2.1.g. Circulars / Decrees (“Genelgeler / Sirküler” in Turkish)

⁴³⁸ *Ibid.*, p. 137.

Every agency in the administration issues decrees to carry out its administrative functions. For example, government's appointment decrees are a typical example. Decrees are also used to bring certain implementation measures into effect and to explain how some provisions will be implemented. The agencies issuing these decrees have their areas of authority defined by their own laws. Decisions of the Council of Ministers are in this category. Decrees do not have the force of law and are not published in the Official Gazette.

4.2.1.h. International Agreements (“Uluslararası Antlaşmalar” in Turkish)

According to Article 90 of the Constitution, agreements concluded by the Republic of Turkey with foreign states and international organizations are ratified by law. The Parliament is empowered to ratify such agreements. On the other hand, Article 104 of the Constitution when listing the President's duties identifies ratification of international agreements among his duties and powers.

Technically, therefore, treaties are laws, which like other laws have to be published in the Official Gazette to become enforceable. However, the constitutionality of treaties, unlike laws, may not be challenged.

4.2.1.i. Customary law (“Örfi Hukuk” in Turkish)

Inevitably some values and customs of society must be taken into account in the legal structure, especially for determination of disputes. Customs are used as guidelines. For customs to be a source of law they must have been followed by society (or the relevant part of society) for a long period of time and must also be accepted as such by a large majority of that society.⁴³⁹

Next Section of the Chapter will review main legal texts and their basic prescriptions applicable to management of water resources in Turkey.

⁴³⁹ Kemal Gözler, *Hukukun Genel Teorisine Giriş: Hukuk Normlarının Geçerliliği ve Yorumu Sorunu*, US-A Yayıncılık, Ankara, 1998, pp. 121-134.

4.2.2. Water Related Laws and Regulations

First Islamic customary law, and then “Mecelle” formed legal bases for water management policies in the Ottoman Empire which preceded Republic of Turkey. Then, the Constitution and the Civil Code are referred as basic sources of law, particularly with regards to arising conflicts in water management issues.

4.2.2.a Islamic Law

In Islamic Law, water is regarded as common property, and it was the State generally conducted the ways water is managed. Water is not accepted within the sphere of private property. However, as the customs have special importance in Islamic rule, the historical users and usages are respected and their rights are protected as if they have property rights over those waters. All in all, this protection did not amount to a status beyond “right to use”. The right to use is regulated through permissions of state (“ferman” in Turkish). Water conflicts are dealt with by “fatwas”⁴⁴⁰,⁴⁴¹ Vaqfs⁴⁴² (“Vakıf” in Turkish) were also significant institutions in water management issues.

4.2.2.b. Mecelle

Mecelle (“Mecelle-i Ahkam-ı Adliyye”) was the civil code of the Ottoman Empire in the late 19th and early 20th centuries. It entered into force in 1877, following lengthy preparations. It was essentially an attempt of codification of rules of Sharia and customary rules. It remained in force until 1926.

According to Mecelle, all waters in natural condition, whether surface or groundwater, belong to the public. But, it also accepted property rights on waters which are appropriated. Thus, Mecelle raised the principle of equitable exploitation of natural properties, but also stipulated that appropriation is essential for having

⁴⁴⁰ Mufti's opinion on a matter involving religious law.

⁴⁴¹ Dursun Yıldız and Özdemir Özbay, *Su ve Toprak*, Dünya Yayıncılık, January 2009, p. 50.

⁴⁴² Foundations.

property rights on water, and protected work and labor rights on those waters.⁴⁴³ Following the abolition of Mecelle, as previously stated, the Constitutions and Civil Code has begun to be the main sources of law.⁴⁴⁴

4.2.2.c. *The Constitution*

The Constitution of 1982, which is in force, established two basic principles with regards to the water in Article 168. The first principle is that water is a public good under the State's trusteeship. The second principle, accordingly, is that the authority to explore and manage water resources is vested in the State.⁴⁴⁵ Yet, the Article 168 also stipulates that the State could grant this right (the right to explore and manage water resources) to real or legal persons for a definite time. And, all the details about the usage of this right are to be determined by law.

Turkish Constitutions differ from previous laws such as Mecelle, in terms of their understanding of water. Constitutions of Turkey (1961 and 1982⁴⁴⁶) left the "individualist" ("ferdiyetçi" in Turkish) and "private law" priorities aside and regulated the legal principles about water on the "public law" grounds. The economic and social problems of the 20th century (migration to urban areas, high rate of population increase etc.) as well as the understanding of "development plans" necessitated the rational utilization of water resources, which is also made possible by the technical possibilities of the era. Thus, re-assessment of water resources within the context of Public Law became essential.⁴⁴⁷

⁴⁴³ Dursun Yıldız and Özdemir Özbay, *op. cit.*, p. 51.

⁴⁴⁴ M. Edip Doğrusöz, *Sular Hukuku*, 5th edn., Yetkin Yayınları, Ankara, 1997, p. 37.

⁴⁴⁵ Article 168 ("Exploration and Management of Natural Properties and Resources"), 1982 Constitution.

⁴⁴⁶ In 1924 Constitution, there was no water related Article.

⁴⁴⁷ Dursun Yıldız and Özdemir Özbay, *op. cit.*, p. 51.

4.2.2.d. *The Law on Waters*

The first specific law on water enacted in the Republican era is the “Law on Waters”. The Law on Waters, numbered 831, entered into force in 10.05.1926. It is relatively a short legislation with only 9 articles. This law (Article 1) stipulates that the supply and management of water resources to towns and cities will be the responsibility of municipalities, whereas in the villages, this authority will be used by Village Councils (“Köy İhtiyar Heyeti” in Turkish, in accordance with the Village Law, No. 442).⁴⁴⁸ With regards to projects in municipalities, aimed for (re)construction or modification of water related infrastructure would be approved by Ministry of Health and Social Aid (“Sıhhiye ve Muavenet-i İctimaiye Vekaleti” [later, Sağlık ve Sosyal Yardım Bakanlığı] in Turkish). In villages, local health officials shall be responsible from control and approval of this kind of projects. Overall, along with the Prime Ministry, the Ministry of Interior and the Ministry of Health and Social Aid were responsible ministries for execution of this Law.

The Law on Waters is remarkable in its approach to water supply as it attributes great importance to matters of health, probably due to the poor quality of water concomitant to war-torn water infrastructure of a newly born Republic. Given the fact that authority of approval of water projects belongs to the Ministry of Health and Social Aid, this Law also marks that at that time Turkey lacked engineering expertise and a water specific administrative organization or approach on water infrastructure. In 1928, to support the implementation of Law on Waters, a Statute is adopted⁴⁴⁹ explicating the process of the transfer of foundation (Vakıf) waters to either municipalities or village councils.

⁴⁴⁸ Act No. 442, entered into force 7.04.1924, Official Gazette No. 68. According to Article 13 of this Law, supply of water to village and protection of waters of village are among the compulsory duties of villagers.

⁴⁴⁹ The Statute on the Implementation of the Law on Waters, Council of Ministers Decision No. 7044, Official Gazette No. 976, 29.08.1928.

4.2.2.e. The Civil Code

The Civil Code⁴⁵⁰ is another fundamental legal text which reiterates water specific norms. In 1926, Turkey adopted a Civil Code (“Türk Kanun-i Medenisi” in Turkish)⁴⁵¹. It was adapted from the Swiss Federal Civil Code of 1912.

The 641th Article of the Civil Code stipulates that any unowned property belongs to the state and the waters are public property available for public use. This was necessary in the sense that The Law on the Implementation of Civil Code⁴⁵² explicitly abolished Mecelle, which had accepted senior water rights. However, contrary to 641th Article of the Civil Code, no legal regulation was enacted since then, with regards to management of public surface waters.⁴⁵³ As a result, the problems arising from the lack of specific laws on use of water rights would be resolved by administrative courts. Since Civil Code respects customs, traditions and sustained practices as reference points; accordingly, Court decisions often refers to customs, traditions and sustained practices resulting in case-specific, or *ad hoc* formulations.

According to the Civil Code⁴⁵⁴, which was renewed in 2001, water resources fall in two categories. First category involves the public water resources, and second involves water resources in the domain of private law and private proprietorship. This categorization is inferred⁴⁵⁵ from the Article 715 of the Civil Code, which reads

⁴⁵⁰ Codes also stand for *Laws* and *Acts*.

⁴⁵¹ Act No. 743.

⁴⁵² Article 43.

⁴⁵³ Dursun Yıldız and Özdemir Özbay, *op. cit.*, pp.53-54. Also see İsmail Duygulu, “Su”, online paper, available at <http://www.turkhukuk sitesi.com/showthread.php?t=33816>, accessed on 5.1.2011, and M. Edip Doğrusöz, *op. cit.*, p. 50.

⁴⁵⁴ Act No. 4721.

⁴⁵⁵ As Duygulu observes, since there is no clear demarcation line between the public and private waters in the Turkish Civil Code, variance appears among Court decisions. Hence, some courts may

the assets under nobody's possession and the commodities at the service of the public shall be under the command and possession of the Government⁴⁵⁶.

Meanwhile, Article 756 of the Civil Code regulates springs as a subject to private ownership. The Article specifies that "any spring is an integral part of the land, the ownership of a spring may be allowed only together with the ownership of the land"⁴⁵⁷. According to Özbay, the Articles 715 and 756 should be assessed in conjunction, meaning that, except for privately owned springs, surface and groundwater resources cannot be owned, but are subject to user rights which are granted for beneficial use only, such as domestic and agricultural use, fishing, hydropower generation, industry and mining, transportation, and medicinal and thermal uses.⁴⁵⁸ This understanding was later reinforced by two laws. First, by the enactment of Act No. 138⁴⁵⁹, which amended Civil Code's Article 679⁴⁶⁰, groundwaters were defined as public waters and became under State's trusteeship. Second, as explained below in detail, Act No. 167 further regulated groundwaters according to the principles of Public Law.⁴⁶¹ However, the Civil Code recognizes "springs" as private waters. With regards to issues of drinking water supply, this causes difficulties in protecting the public interest in some cases.⁴⁶² For Doğrusöz,

decide to recognize public waters as private waters and permit them to be written in cadastral registry. Waters recorded in cadastral registry are recognized as private waters. Registration gives the right to sell or transfer of those waters.

⁴⁵⁶ Aynur A. Coşkun, "Water Law: the Current State of Regulation in Turkey", in *Water International* Vol. 28, No. 1, 2003, p. 70.

⁴⁵⁷ *Ibid.*, p. 74.

⁴⁵⁸ Özdemir Özbay, *op. cit.*, pp. 38-39.

⁴⁵⁹ Act No. 138, 23.11.1960,

⁴⁶⁰ Doğrusöz emphasizes that as methods of hydrological and geological surveys improved, the physical relations between the springs and groundwaters, and the significance of groundwaters are acknowledged, accordingly. Also see Ahmet Demir, *Türkiye İç Sularından Faydalanma*, Ankara, 1963, p. 85.

⁴⁶¹ Dursun Yıldız and Özdemir Özbay, *op. cit.*, p. 55.

⁴⁶² M. Edip Doğrusöz, *op. cit.*, p. 49.

regarding springs as a subject of private ownership is against the modern understanding of law and technical realities.⁴⁶³

On the other hand, the By-law on the Waters Intended for Human Consumption (“İnsani Tüketim Amaçlı Sular Hakkında Yönetmelik” in Turkish) which was adopted on February 17, 2005⁴⁶⁴ brought significant mechanisms of control for spring waters⁴⁶⁵. Therefore, the concerns over the issues of “public interest” are somewhat eliminated. According to this By-law, the inspectors from the Ministry of Health will control the spring water facilities annually. Additionally, the provincial units of Ministry of Health will be responsible from controlling the quality of these waters in every three months period.⁴⁶⁶ Article 24 of this By-law stipulates that “spring protection zones” (“kaynak koruma alanı” in Turkish) shall be established by a Council consisting of the Director of the provincial Directorate of Ministry of Health (or one of its deputies), head of the unit of food and environmental control, a civil engineer, a mechanical engineer, a geology engineer, a chemical engineer, a medicinal technician, and an expert from public improvement directorate (“İmar Müdürlüğü” in Turkish). Any activity with a risk of deteriorating the quality of spring water is prohibited within this zone.⁴⁶⁷

To conclude, the discourse of the Civil Code demonstrates that the Civil Code prioritized the “public” nature of water resources yet also respected senior rights and private ownership. Therefore, the Civil Code tried to seek a balance between “public” and “private” waters. As the issue of “springs” demonstrated, some

⁴⁶³ *Ibid.*, p. 50.

⁴⁶⁴ Official Gazette No. 25730. This By-law is adopted within the framework of harmonization with the “Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption”.

⁴⁶⁵ The exceptions to this By-law are natural mineral waters, and waters used for medicinal purposes (such as thermal waters), Article 2 (in line with the Council Directive 98/83/EC, Article 3.1.).

⁴⁶⁶ Article 46.

⁴⁶⁷ Article 24.

exceptions to public waters in the Code created problems which were to be dealt with by Courts, afterwards. This problem became protracted, and was tried to be resolved by legislative means in 2000s. The Civil Code has suffered from the problems arising from the intensification of competition over limited water resources by a rapidly increasing population. As a consequence, the need for a clear legal delineation of the boundaries between the “public” and “private” spheres gained prominence over the debates around water management. The Civil Code is, thus, to be regarded as a progressive, yet not finalized step towards a comprehensive and modern legal approach to water issues in Turkey.

4.2.2.f. Act No. 6200

Act No. 6200 on Organization and Duties of the State Hydraulic Works empowers the DSI to coordinate water use at the national level.⁴⁶⁸ It was adopted in Parliament on 18 December 1953 and was published in Official Gazette on 25 December 1953⁴⁶⁹. According to Article 59, the Act had become valid beginning from 28 February 1954.⁴⁷⁰

Article 1 of the Act No. 6200 states the basic purpose of the establishment of the DSI: “in order to prevent the damages of, and to multi-dimensionally benefit from surface and groundwaters”. DSI was first established as an institution under the Ministry of Public Works (“Bayındırlık Bakanlığı” in Turkish)

⁴⁶⁸ Özdemir Özbay, *op. cit.*, pp. 38-39.

⁴⁶⁹ Official Gazette No. 8592.

⁴⁷⁰ With this Act, the DSI is organized as a three-tiered organization. Its top management level is the General Directorate in Ankara. There are four Deputy Director Generals under the Director General. The Bureau Manager serves as Secretary to the Director General. The Board of Inspection executes and concludes any inquiry, inspection, and investigation. The Legal Advisory Office is responsible for giving advice on legal issues and proposing solutions to disputes and disagreements by following DSI’s legal procedure. The secondary management level comprises 13 departments. There are also other auxiliary units such as the Foreign Relations Office and the Civil Defence Office. The third management level comprises 25 Regional Directorates, which are dispersed throughout Turkey and which execute their work on behalf of the DSI General Director according to annual and 5-year development plans as well as investment programs.

Article 2 provides the long list of duties and powers of the DSİ, such as constructing dams; building flood control facilities; equipment of land with irrigation facilities; reclaiming swamps; generating hydroelectric power; improving rivers for navigation; carrying out all kind of related surveys, project and construction; and executing the duties of operation, maintenance, and repair of the facilities. According to Article 22, DSİ annually prepares “three-year plans”, and, following the approval of the Ministry of Public Works, DSİ implements it.

It is important to note that Act No. 6200 does not explicitly give mandate to DSİ for water resources management on the basis of river basins.⁴⁷¹ Act No. 6200 basically aimed at developing water resources. In other words, the Act no. 6200 adopted a focus which prioritized the construction of physical waterworks aiming mainly for provision of water for drinking, irrigation and energy production; as well as flood control constructions. These comprise the “core” duties. Core duties are formulated around the themes of “benefitting from”, and “preventing the damages of” water resources. A set of auxiliary duties surrounded these “core” duties. These auxiliary duties include project surveys, project, operation, maintenance, repair of the facilities, monitoring activities. Therefore, Act no. 6200 adopted the view of supremacy of development of “water quantity” over improvement of “water quality”. Having regard of the needs of the time, prioritization of “water quantity” development was a rational decision. According to Özbay, development of water resources was a priority in 1954, when water resources were undeveloped and in abundance relative to the population and water demands. Indeed, the paradigm of “hydraulic mission” had produced some model institutions⁴⁷² through which construction of dams and irrigation networks created sizeable increase in agricultural production, thus, in people’s wealth. Lacking essential water related infrastructure which is required for economic and social development of the country, state officials took the view that a full-scale organization capable of systematically developing

⁴⁷¹ Dursun Yıldız and Özdemir Özbay, *op. cit.*, p. 75.

⁴⁷² Most notable example was Tennessee Valley Authority in USA.

water resources for the benefit of the country and its people was necessary. The Act no. 6200 was the major output of this thinking in mid-1950s. However, it is regarded essential by official authorities to adopt a comprehensive *new* water law which would clearly define the river basin management approach. In this view, this could be possible by determination of a central authority for water management activities related to licensing, regulation and control of water uses.⁴⁷³

4.2.2.g. Act No. 167

“The Groundwater Law” entered into force on 23.12.1960⁴⁷⁴. Article 1 of the Law states, “Groundwaters are public waters and under State’s trusteeship.”⁴⁷⁵ Investigation, utilization, protection and licensing of these waters are subject to this law. Broadly speaking, the Act empowers DSİ to conduct surveys concerning groundwater and drill deep wells or have them drilled, transfer or lease deep wells, to protect and record groundwater; and grant licenses for survey, use, rehabilitation and modification of deep wells.

Upon determination of its boundaries and characteristics, followed by the State Hydraulic Works’ proposal, the relevant Ministry⁴⁷⁶ declares “Groundwater Utilization Areas” (“Yeraltı Suyu İşletme Sahaları” in Turkish) (Article 3). Within these groundwater utilization areas; the number of wells, locations, depths, other properties of wells and the amount of water to be withdrawn are determined by the DSİ. According to Article 5, apart from these declared groundwater utilization areas, each and every landowner has a right to explore and utilize the groundwater within his/her land. According to Article 5, the amount of groundwater that could be used

⁴⁷³ Dursun Yıldız and Özdemir Özbay, *op. cit.*

⁴⁷⁴ Official Gazette No. 10688.

⁴⁷⁵ Article 1.

⁴⁷⁶ Article 3 does not specify the Ministry. However, the Statute on Groundwaters (1961), in Official Gazette No. 10875, states that the Ministry of Public Works (“Bayındırlık Bakanlığı” in Turkish) will decide on the Groundwater Utilization Areas.

by landowner is limited by the term “sufficient for his/her useful needs”. The amount sufficient for useful needs is determined by the DSİ, via taking opinions from relevant Ministries⁴⁷⁷. The waters exceeding this limit (the limit dependent upon the “useful needs”) are rented out by Special Provincial Administrations (SPAs). SPAs also rent out the groundwaters which are withdrawn with the purpose of selling as drinking water, groundwaters used for irrigation, domestic or industrial water, and spring waters. Village legal personality, which is represented by the village head (“Muhtar” in Turkish), receives 15% of the income, if the withdrawal of the groundwater is within the village boundaries; if the groundwater is withdrawn within the municipal boundaries then the relevant municipality gets 25% of the income.⁴⁷⁸

DSİ has also the right to open wells in anywhere, with the purpose of research and investigation, without expropriation. It is a legal requirement to obtain a permissive document from DSİ with regards to holes, wells, sondages⁴⁷⁹ aimed for water supply, exceeding the depth limit which is determined by the DSİ. It is also required for all galleries and tunnels opened with an aim to find water. If explorations and well openings do not aim to find water, there is no need to obtain the document. However, information should be provided if and when demanded by DSİ.

A one-year valid document, which is called “exploration document”, is issued. If exploration cannot be completed within one year, the document owner could ask for

⁴⁷⁷ Neither the Act No. 167, nor the Statute on Groundwaters refers to these Ministries. However, the Statute on Groundwaters specifies the useful needs of the following water uses will be evaluated in coordination with relevant ministries: drinking water, water used for animals, municipal services, irrigation activities, water used for mining and industrial activities, sporting facilities. Therefore, relevant ministries may include Ministry of Interior, Ministry of Health, Ministry of Environment and Forestry, Ministry of Youth and Sports, Ministry of Agriculture and Rural Affairs, Ministry of Public Works and Settlement, and Ministry of Industry and Trade, depending on the water use. Although above Ministries may be involved in determination of useful needs, in practice most of the decisions are reportedly determined by the Ministry of Industry and Trade, and Ministry of Agriculture and Rural Affairs (Ercüment İmmet, Branch Manager, Groundwaters and Geotechnic Branch, DG XI, DSİ, Edirne, personal interview, Edirne, October 2010).

⁴⁷⁸ This provision is added to the Article 4 via amending Act No. 4916, which was adopted on 3 July 2003.

⁴⁷⁹ Exceptions to this are those holes, wells, sondages opened by hand.

re-issue, within the last month of the first exploration document. In this case, the document is validated for another one year. If the work cannot be completed in two years, a new document should be obtained.⁴⁸⁰ Upon reception of the exploration document, a “usage document” must be obtained from DSİ within one month following the beginning of the use of groundwater.⁴⁸¹ It is forbidden to change characteristics of wells or the way they are used, unless a “ıslah ve tadil document” (document of improvement or modification) obtained from the DSİ.⁴⁸² If water demands on a groundwater approach the “safe yield” limit, a group of Ministries’ representatives is formed and this group decides which demand owners would receive usage document”.⁴⁸³

Act. No. 167 is supported by a Statute (“Yeraltı Suları Tüzüğü” in Turkish), which entered into force in 1961⁴⁸⁴. It governs the possibilities to benefit from a neighboring groundwater resource for those with no available water in their territories or when the cost of reaching the groundwater in an area is excessively costly.

With regard to the implementation side of the Act No. 167, there is a problematic issue which emanates from the increasing number of utilization applications. It has been stated that the Act does not resolve the problem of misfit between the number of applications for groundwater utilization and the available reserves. The number of applications exceeds the available reserves. As the legislation is built upon the logic of “first come, first served”, it is unable to satisfy the needs of newcomers.⁴⁸⁵

⁴⁸⁰ Article 9.

⁴⁸¹ Article 10.

⁴⁸² Article 11.

⁴⁸³ Article 14.

⁴⁸⁴ Official Gazette No. 10875.

⁴⁸⁵ Ercüment İmmet, Branch Manager, Groundwaters and Geotechnic Branch, DG XI, DSİ, Edirne, personal interview, Edirne, October 2010.

Act No. 167 (along with the Act No. 138, which excluded the groundwaters from the realm of “private waters”) is significant in the sense that it reinforced the status of groundwaters as public waters. Act No. 167 authorizes the DSİ as the single authority for groundwaters⁴⁸⁶. In this regard, the framework in groundwater management represented a contrast with that is prevalent for surface waters.⁴⁸⁷ Thus, at least at time of enactment of Act No. 167, there was no fragmentation concerning groundwater management.

However, the single framework for groundwater management which was created by Act No. 167 was damaged by several subsequent enactments of legislation. For instance, according to Özbay, the Act No. 167 has later begun to suffer from administrative duplications problem, mainly caused by subsequent enactments of Act No. 3202, which instituted the General Directorate of the Rural Services (GDRS), and the Act No. 2560, which introduced the İstanbul Water and Sewage Administration⁴⁸⁸. As these laws also operated within the framework drawn by the Act No. 167, administrative duplications occurred.⁴⁸⁹ For instance, Article 40 of the

⁴⁸⁶ The single exception to groundwaters is “spring waters”. With regards to spring waters, there are other legal regulations. In this respect, an official report drafted by a group of experts (“Özel İhtisas Komisyonu”) recommended that “spring waters” should be brought under the framework of the Act No. 167, see Republic of Turkey, State Planning Organization (“Devlet Planlama Teşkilatı” in Turkish), *Dokuzuncu Kalkınma Planı, Toprak ve Su Kaynaklarının Kullanımı ve Yönetimi, Özel İhtisas Komisyonu Raporu*, Ankara, 2007, p. 92.

⁴⁸⁷ It is asserted that Act No. 167 is more “explicit” than the Act No. 6200, and *does* give DSİ powers to control the groundwater resources (emphasis added). (World Bank, Irrigation and Water Resources with a Focus on Irrigation Prioritisation and Management, *Water Resources and Institutions Working Paper*, 2006, p. 69).

⁴⁸⁸ Responsibilities of Water and Sewage Administrations are to take legal, technical and administrative measures for prevention of groundwater pollution and decreasing of groundwater quantity. Supplying potable water to rural communities by drilling the groundwater wells is one of the main duties of the SPA after the abolition of the GDRS. It does not get license to provide groundwater, according to its organization Law. See Frank Vligthenhardt, Ahmet Hamdi Sargin, Ali Görkmen and Müfit Şefik Dođdu, A New Approach for Groundwater Management in Turkey: A Groundwater Management Plan according to EU Groundwater Directive (80/68/EEC) and Water Framework directive (2000/60/EC), paper presented at *International Congress on River Basin Management*, 2007, pp. 68-69.

⁴⁸⁹ Özdemir Özbay, *op. cit.*, p. 38.

Act No. 3202 reads that wells opened for water supply to villages and military garrisons shall remain out of the Act No. 167 framework. Within this context, in addition to administrative duplications, duplications in terms of use from the same resource are being increased. Another significant problem related with groundwaters is the widespread phenomenon of illegal wells. In this regard, it has been argued by experts that a revision to the Act No. 167 should be made which would contain more dissuasive provisions against illegal wells.⁴⁹⁰ In short, given the legal inconsistencies exacerbated by lack of effective monitoring⁴⁹¹, it has been argued that the groundwater management in Turkey remains “anarchic”.⁴⁹² The need for a revision of the Act No. 167 is also acknowledged by DSİ authorities.⁴⁹³

In sum, at its time of adoption, Act No. 167 was one of the legislation which contributed to the establishment of the supremacy of DSİ in water management policy in Turkey. In this respect, it could be seen as a complimentary to the framework that had been established by the Act No. 6200. However, the subsequent changes had destructive impact on the main logic of this framework, which have ultimately necessitated a reappraisal of the Act No. 167.

4.2.2.h. Act No 1053

⁴⁹⁰ USİAD, *Su Kaynakları Bakanlığı Kuruluş Kanunu Tasarı Taslağı Önerisi*, Ada Strateji, 10.04.2010, p. 24.

⁴⁹¹ Apart from this problem, as the major causes of problems in quality monitoring, Yalçın Özkapitan (Director of the Quality Control Laboratory at DG XI. Of DSİ, Edirne) mentions the lack of funding and personnel. For instance, the analyses of groundwaters in terms of pesticide contamination could only be made at center, at laboratory in Ankara (personal interview, October 2010). The detrimental impacts of inefficient monitoring on groundwater quality are empirically demonstrated through case studies. For instance see, Mustafa Kaplan, Sahriye Sönmez, and Selim Tokmak, “Antalya–Kumluca Yöresi Kuyu Sularının Nitrat İçerikleri”, in *Turkish Journal of Agriculture and Forestry*, Vol. 23, 1999, pp. 309-313.

⁴⁹² World Bank, *op. cit.*

⁴⁹³ Ercüment İmmet, Branch Manager, Groundwaters and Geotechnic Branch, DG XI, DSİ, Edirne, personal interview, Edirne, October 2010.

“Law on Supply of Drinking, Domestic, and Industrial Water to Cities with Municipalities”. According to this Law, which entered into force on 16.07.1968⁴⁹⁴, DSI is entrusted provision of water supply for cities with more than 100,000 inhabitants, provided that the government authorizes DSI and that the City Council concerned also approves. Within the framework of Act No. 1053, DSI shall construct dams and transmission lines; construct water treatment plants; and build water storage facilities. Article 10 of the Law No 1053 has recently been amended. The amending Act No. 5625⁴⁹⁵ which entered into force on 26.04.2007, has repealed the population criterion (cities with a population of which is over 100,000) and thus lead to an extension in the duties of DSI. Thus, since 2007, DSI has been authorized for domestic and industrial water supply of 3225 municipalities. In this framework, Act No. 1053 is seen as a complementary of the Act No. 6200. Yıldız and Özbay argues that rules of the Act No. 1053 supports the aims of the Act No. 6200.⁴⁹⁶

The rhetoric of Act No. 1053 is notable in the sense that it shows the increasing salience of urbanization in water management policy context in Turkey by late 1960s. By late 1960’s the need for water related infrastructure in urban areas became high on the agenda due to the continued migration from rural areas to cities. For the municipalities began to be insufficient in terms of financial and administrative capacity to provide water, DSI, with its experience in construction works, was selected as the appropriate means to realize these works. As a result, the prominence of DSI in water management issues was reinforced by the Act No. 1053. This evolving stronghold of DSI has later been criticized by those who demanded a more de-centralized water management. Act No. 1053 is also notable in respect to incorporation of “water treatment” into the water management policy context. This is also relevant to the concept of urbanization.

⁴⁹⁴ Official Gazette No. 12951.

⁴⁹⁵ Official Gazette No. 26504.

⁴⁹⁶ Dursun Yıldız and Özdemir Özbay, *op. cit.*, p .65.

Until mid-1980s, i.e. the establishment of metropolitan municipalities, DSI's role in constructing water treatment facilities remained dominant. From mid-1980 onwards, Metropolitan municipalities had taken on most part of this responsibility⁴⁹⁷. In 2007, concomitant to the severe drought experienced in major metropolitan areas, including Ankara; and order to facilitate construction of drinking water supply facilities (dams, transmission lines, etc.) and water treatment plants in small-scale towns, the population criteria was abolished, thus DSI's role for water works' construction in urban areas are extended.

Act No. 1053 is the third major law which created the framework for prominence of DSI in water management issues. The other laws are Act No. 6200 and Act No. 167. However, the coherence of this framework was then spoiled by subsequent legislation which created exceptions; and dispersed the duties formerly handled by DSI among a number of institutions. The second problem regarding this framework is related with the fact that the Act No. 1053 was not updated according to changing needs. For instance, the water quality monitoring related stipulations of the Act, which gained significance as a result of industrialization and urbanization, were not incorporated into this legal framework. A separate body of By-laws, which were enacted beginning from late 1980s, have become the means to cope with the pollution phenomenon.

4.2.2.i. Act No. 2560

Act No. 2560 on Establishment and Duties of the İstanbul Water and Sewage Administration⁴⁹⁸, commonly known as İSKİ Law⁴⁹⁹, established an autonomous entity with the responsibility for the planning, design, construction, and operation of

⁴⁹⁷ DSI continued to help municipalities through protocols and within its budget's limits.

⁴⁹⁸ Act No. 2560, Official Gazette No. 17523, 23.11.1981.

⁴⁹⁹ İSKİ is the Turkish Acronym for "İstanbul Su ve Kanalizasyon İdaresi".

all water supply and sewerage services in metropolitan areas.⁵⁰⁰ The mandate of İSKİ was completed by the Governmental Decree No. 56, on 7.2.1983⁵⁰¹ which amended the Law No. 2560. At the beginning, İSKİ was established as an independent body. After the reorganization of the municipality as a Metropolitan Municipality in 1984, the İSKİ has been subordinated to the İstanbul Metropolitan Municipality as a public entity with an independent budget.

Establishment of İSKİ could be seen as a turning point in the sense that, this water and sewerage administration model was extended to cover other metropolitan municipalities, such as Ankara in 1987 and İzmir in 1989. There are currently 16 water and sewerage administrations within Metropolitan Municipalities.⁵⁰² As metropolitan municipalities and their subordinate organizations tried to find their own resources out of the Bank of Provinces framework, they began to finance large-scale urban infrastructure investments through utilization of foreign loans, which ultimately resulted in an increase in privatization efforts in municipal services⁵⁰³. Therefore, İSKİ Law represents the beginning of an era in which decentralization caused pressures for privatization. As a consequence, in Turkey, it could be argued that decentralization of water services has gone hand in hand with privatization.

4.2.2.j. Act No. 2872

The Law on Environment was adopted on 11 August 1983.⁵⁰⁴ The Law defined the basic principles⁵⁰⁵ and concepts⁵⁰⁶ of Turkish environmental policies and

⁵⁰⁰ Article 1.

⁵⁰¹ Dursun Yıldız and Özdemir Özbay, *op. cit.*, p. 138.

⁵⁰² Tayfun Çınar, “Privatization of Urban Water Sewerage Services in Turkey: Some Trends”, in *Development in Practice*, Vol. 19, No. 3, 2009, p. 351.

⁵⁰³ *Ibid.*, p. 354.

⁵⁰⁴ Act No. 2872, Official Gazette No. 18132.

⁵⁰⁵ Özden Bilen, *op. cit.*, “Türkiye’nin Su...”, p. 291.

introduced measures on a number of issues including “protection of environment”, “prohibition of polluting”, “environmental impact assessment”, “permissions of operation, and requirement of reporting”, “control”, “hazardous chemical substances”, “noise”, and “suspension of activities”. According to the framework drawn by the Law, “environmental protection” and “prevention of pollution” will be the two pillars that Turkey’s environmental policies will be built upon. The control and enforcement authority is given to the General Directorate on Environment⁵⁰⁷ which would operate under the aegis of the Prime Minister’s Office. In 1989, an Undersecretariat (“Müsteşarlık” in Turkish) was founded and served with this mandate until the establishment of the Ministry of Environment in 1991. Additionally, according to Article 24, the Metropolitan Municipalities (within their borders), Coastal Security (“Sahil Güvenlik” in Turkish), Provincial Governors and Provincial District Governors (“Kaymakam” in Turkish) have authority to impose fines against the polluters. The latter three can only impose outside Metropolitan Municipality borders.⁵⁰⁸ The Law established a fund to be used for purposes of environmental protection⁵⁰⁹, and will mainly be composed of the fines paid by polluters. The fund was abolished by 1.1.2002.⁵¹⁰

The Law also acknowledges the principle of “sustainable development”, although the very word sustainable was not mentioned in the text. Yet, Article 1, which states the purpose of the Law, refers to the measures aiming to protect and improve today’s and future generations’ levels of health and civilization and their standards of living.⁵¹¹ The Law also seeks a balance between economic and social

⁵⁰⁶ Article 2 provides definitions of following concepts: “protection of environment”, “ecological balance”, “environmental pollution”, “polluter”, “waste”, and “receiving body” (stands for “receiving water body”).

⁵⁰⁷ Article 12.

⁵⁰⁸ Article 24.b and 24.c.

⁵⁰⁹ Article 17.

⁵¹⁰ Article 6.e. of Law No. 4629, 21.2.2001.

⁵¹¹ Article 1.

development goals of the country and environmental measures.⁵¹² In this context, it could be maintained that the principle of sustainability is implicitly adopted by the Law No. 2872.

The Law on Environment adopts an integrated approach. In this respect, the Article 3.g. requires a *holistic* implementation of measures pertaining to environmental protection and prevention of pollution.⁵¹³

The Act No.2872 created significant implications for not only the fact that it was a turning point in terms of the environmental policies in general, but also it marked the start of a new phase in water management policy through which the water quality management gradually had begun to gain significance. The emphases on the concepts of “protection of environment” and of “prevention of pollution” appeared as two new beacons to concentrate on for the water management policy in Turkey. Within this framework, most of the subsequent water quality legislation, including the By-law on Water Pollution Control (1988) and amendments to it (2004,2008); as well as the Environmental Impact Assessment By-laws (1993) are enacted within the context that had been defined by the Act No. 2872.

4.2.2.j. Decree-Law No. 443 and Act No. 4856

The Ministry of Environment was established by the Decree-Law No. 443 which was adopted in 21.08.1991.⁵¹⁴ In 2003, the Ministry of Environment and the Ministry of Forestry were integrated into a single Ministry, the Ministry of Environment and Forestry, with the Act No. 4856, Law on the Organization and

⁵¹² Article 1. Article 3.b. also mentions the need for calculations of both positive and negative impacts of environmental measures considering the economic development goals, and cost- benefit analysis of these measures.

⁵¹³ Article 3.g.

⁵¹⁴ Official Gazette No. 20967.

Duties of the Ministry of Environment and Forestry.⁵¹⁵ The 43th Article of the Law abolished the Decree-Law of 1991.

Concerning the water related responsibilities of the Ministry of Environment and Forestry, Act No. 4856 gives more responsibility to the Ministry when compared with the Decree-Law No. 443. The water related responsibilities of the Ministry are mainly relevant to the area of “water quality” and the major unit to be involved in these responsibilities would be The General Directorate of Environment Management. Article 9 of the Act No. 4856 lists these responsibilities which have noteworthy significance. Analysis of these responsibilities will help us to view the main approach of Turkish lawmakers on the issues of water quality in particular, and water management paradigms in general. One point to be noted here is that the Law does not elucidate water specific responsibilities in the Article 2 where “responsibilities of the Ministry” are listed. Indeed, Article 2 mentions the word “water” only once, when stating the duty of the Ministry as to eliminate polluters which remain permanently in environmental media (such as water, soil, air). This fact rather seems to have been caused by a practical difficulty in writing the law, than stemming from an intentional discursive choice. There are two indications for this. First, if all specific responsibilities of different environmental sectors (waste, soil, water, air, etc.) had been contained in the Article 2, it would have been an excessively long article⁵¹⁶. Second, if water specific duties had been contained in Article 2, Article 9 would simply have been a repetition. Therefore, in accordance with the commonsense and the law writing technique, Article 2 mentioned the overarching duties of the Ministry in broader sense, while Article 9 provided, *inter alia*, water specific duties of the Ministry and its subordinated unit, namely the General Directorate of Environmental Management. The final remark on the responsibilities of the Ministry of Environment and Forestry is that, while the

⁵¹⁵ Official Gazette No. 25102, 08.05.2003.

⁵¹⁶ It is a long article, with 689 words, excluding the title.

Article 2 which enumerates broad duties of the Ministry for repeatedly emphasized the “development” perspective.

According to Article 9, the General Directorate of Environment Management will be responsible from are, among others, i.) to prepare plans for water resources protection and use, make all necessary studies and works in order to enable integrated management of inland water resources and soil resources on the basis of basin, ii.) to make studies in order to determine classes of water quality, to improve water quality and to make most appropriate use of water resources, iii.) to give discharge permissions to plants, to monitor and control discharges and treatment plants, to approve projects of treatment plants to be established for facilities, iv.) With the aim of protecting surface and groundwaters, seas and soil, and of prevention or eradication of pollution; to determine goals and principles, to determine polluters, to determine fundamentals for eradication or control of pollution, to implement these fundamentals, to be prepared for surface water, groundwater, sea and soil pollution, to take measures necessary for struggle with pollution, to prepare emergency plans, to determine appropriate technologies in order to protect environment, and in order to prevent pollution in surface waters, groundwaters, seas and soils, to determine properties of plants to be established in order to struggle with pollution and take necessary measures in this respect.

As it can be discerned from Article 9, the water related responsibilities of the Ministry of Environment and Forestry totally falls into the “water quality” side of the water management. What is more striking is the emphasis on the “integrated management” which to be based on basins. Thus, the Act No. 4856 adopts the same rhetoric as adopted by the WFD which introduced “combined approach” and took the river basins as the main unit. It is also important to note that none of these responsibilities existed in the articles of the Decree-Law No. 443. Therefore, it could be concluded that from 1991 to 2003, there is a visible shift and extension in the responsibilities of the Ministry of Environment and Forestry, making them compatible with the goals of the WFD in broader perspective. However, as

mentioned above, the numerous emphases on the “development” in Article 2 possibly demarcates the boundaries for water quality oriented approach in the Law.

4.2.2.k. *By-law 19919 (and revisions)*

The Blaw on Water Pollution Control, of 1988⁵¹⁷ is a specific by-law aimed to protect surface and ground water resources of the country as well as prevent pollution of water. This by-law is noteworthy in the sense that for the first time, a legislation specifically designed for protection of water quality has been enacted. In this respect, it marks the rising significance of environmental concerns and water quality issues in Turkish water management policies.

In 2004, it was amended through enactment of a new By-law, in the framework envisaged by National Program for the adoption of EU *acquis communautaire*⁵¹⁸. Therefore, with this By-law, basic Turkish legislation on water quality has mostly become aligned to that of the EU. According to By-law, several official organizations are responsible from different aspects of water pollution: The Ministry of Environment and Forestry, The Ministry of Health, The Ministry of Industry and Trade, The Ministry of Culture and Tourism, Provincial Governors, District Governors, DSI, Municipalities, and some unlisted official institutions. In this regard, it could be argued that the new By-law on water quality did not take any notable step to overcome the over-fragmentation of institutional responsibility, a feature of Turkish water management framework, which has continuously been referred to in progress reports of the European Commission, as well as project consultancy firms, such as Grontmij.

⁵¹⁷ By-law of Control of Water Pollution, Official Gazette No. 19919, 04.09.1988.

⁵¹⁸ Official Gazette No. 25687.

According to the By-law (2004)⁵¹⁹, two types of plans shall be prepared. First is “basin plans”, which should be prepared by DSI. Second is “basin protection plans”, which should be prepared by the Ministry of Environment and Forestry (Article 5). Definitions of these plans are provided in the Article 3, as follows: Basin Protection Plan is defined as “water quality protection plan containing all the works and studies done aiming to protect water resources potential for all purposes of use, to make use of water resources potential in the best way, to prevent pollution, and to improve water quality of water resources that have already been polluted.” On the other hand, basin plans are defined as “water use plans containing all the works and studies aiming to benefit from water resources in an efficient manner and to use these resources for irrigation, flood control, navigation, supply of drinking and domestic water, hydroelectrical energy production, drainage, river basin regulation, and similar purposes.”⁵²⁰

The By-law on Water Pollution Control defines emission limit values, i.e. “the maximum allowable discharge of pollutants⁵²¹ into receiving natural and artificial water bodies. The By-law divides inland surface waters into four classes,⁵²² and water quality standards of receiving water bodies are defined accordingly. If it is determined that current and future usage of the respective water bodies is negatively affected, the discharge limit values are reduced.⁵²³ The Water Pollution

⁵¹⁹ By-law of 1988 was only requiring the preparation of “basin plans”, to be prepared by Provincial Governors and Directorate general’s of DSI in cooperation. Related provisions of By-law of 2004 remained intact in By-law of 2008.

⁵²⁰ Article 3, By-law of Control of Water Pollution, Official Gazette No. 25687, 31.12.2004.

⁵²¹ These include priority substances listed in the Dangerous Substances Directive and the Nitrate Directive.

⁵²² Classification is based on a) physical and inorganic chemical, b) organic, c) inorganic pollution and d) bacteriologic parameters. Class I waters refer to high quality waters, Class II waters refer to minimal pollution, Class III refers to polluted water and Class IV refers to highly polluted water (the number of parameters on which assessments rest was extended to 45 in 2004) (Gökhan Orhan and Waltina Scheumann, *op. cit.*, forthcoming, page not available).

⁵²³ Article 39.b.

Control By-law also regulates “the permit system for direct (into receiving natural water) and indirect dischargers (into municipal sewage systems)”.⁵²⁴

The By-law on Control of Water Pollution was amended again on February 13, 2008.⁵²⁵ It further harmonized Turkish water pollution control legislation in accordance with the European Directives which were incorporated into Turkish law.⁵²⁶ It also authorized Provincial branches of MoEF with regards to the discharge permits (previously the highest authority in the province, namely “Vali” had that authority). The 2008 revision of the By-law provided more detailed definitions for several concepts like “eutrophication”⁵²⁷. Remaining discrepancies between Turkish and EU water pollution control legislation were tried to be avoided with this amendment. In this framework, 2008 revision defined several concepts for the first time: “ship”, “sensitive water zone”, “urban waste water”, “recreational areas”, “bilge” (“sintine” in Turkish), and “bathing water”. Another significant amendment in the By-law is that it, for the first time, required an obligation not to release untreated waste water to receiving water bodies⁵²⁸. With the new version, waste water discharge into drinking water bodies is prohibited in a more stringent manner⁵²⁹. In 2004 By-law, the absolute protection zone was 100 meters, beginning from the maximum water level. With the revised By-law, it is increased to 300 meters.⁵³⁰ One of the significant changes that 2008 By-law brings is the prohibition

⁵²⁴ Gökhan Orhan and Waltina Scheumann, *op. cit.*

⁵²⁵ Official Gazette No. 26687.

⁵²⁶ For instance, the definitions are updated according to By-law on Waters Intended for Human Consumption, which was adopted on 17.02.2005, Official Gazette No. 25730.

⁵²⁷ Eutrophication practically means excessive enrichment of waters with nutrients, causing quality degradation.

⁵²⁸ Article 4.j.

⁵²⁹ Amendment prohibits *treated* waste water discharges, as well (Article 16.a).

⁵³⁰ Article 17.

of all mining activities⁵³¹ within the medium range protection zone⁵³² All these changes reveal that, revisions to the By-law in 2008 comprise a notable step forward in terms of harmonization with the EU legislation on water pollution control legislation. It provided for more stringent rules, more detailed definitions and more responsibility for Provincial Directorates of MoEF.

The By-law on Water Pollution Control (1988) represents the embodiment of the environmental focus that has been introduced by the Law on Environment in 1983, in the water management policy. The establishment of Ministry of Environment (1991) created a more institutionalized footing for the implementation of this By-law. The By-law was amended two times (2004, 2008) with a view to get into compliance with the European standards. Therefore, first having been initiated as an internal (national) attempt to ameliorate water pollution, the By-law on Water Pollution Control has then become a subject of the EU membership negotiations. Through these amendments, the scope of the legislation has widened and the details in provisions have increased, and provisions have become stricter. In this respect, from the perspective of environment, it could be argued that Turkey's water pollution legislation experienced a progressive route through successive rounds of amendments, caused by the double effect of internal political will and inspiration from European standards.

These laws are the most major legislation that has been applied in water management policies. However, there is still substantial number of laws and by-laws governing water management other than these. One can find provisions related to water use, management and allocation in almost 100 different law (acts), by-laws, decrees etc. Because of this complexity and fragmentation, there are practical

⁵³¹ In the 2004 By-law, a written document signed by the representative(s) of the mining company should be provided to the MoEF. This documents was to guarantee that water resources' quantity and quality would not be harmed; that there will be no harm to health; that mining activities would not create waste water discharges; and that the mining area would be returned back to nature into pristine conditions (Article 19.e).

⁵³² Article 19 defines the boundaries of the medium range protection zone as "a strip of 1 kilometer in width, which begins from the boundaries of the short range protection zone" (Article 19).

difficulties and contradictions in the implementation and enforcement of water-related legislation.⁵³³

4.2.3. A List of Water Legislation

The great body of water legislation in Turkey represents a complex picture for an analyzer. For the sake of a clear conceptualization, water related legislation in Turkey is categorized by scholars⁵³⁴ in several ways. For instance, a classification is made according to the themes they regulate:

- Legislation on Environment and related regulations on emissions (By-law on Water Pollution Control, By-law on Discharge of Wastewater to Sewage System)
- Legislation on institutions with tasks concerning environmental issues (for instance, laws on their establishments)
- Legislation on use of natural resources and water quantity issues (for instance, Law on Aquatic Products, Groundwater Law)
- Legislation on public health and water quality (for instance, Law on General Hygiene, Drinking Water Standards)⁵³⁵

With respect to Turkish water legislation, Baykan et al. provides another classification which worth mentioning. According to this view, Turkish legal texts on water can be divided into four categories according to their operational purposes. The first category includes legislation about benefitting from water, prevention of water related harm, and protection of water (e.g. Village Law, Act No. 442; Law on

⁵³³ Özdemir Özbay, *op. cit.*, p. 38.

⁵³⁴ Nesrin Baykan, Onur Abay, N. Orhan Baykan and Mutlu Yaşar, “Su Hukuku Öğretileri”, paper presented at *VI. Ulusal Hidroloji Kongresi*, 22-24 Eylül 2010, Denizli, also available online at <http://www.topraksuenerji.org>, accessed on 30.11.2010.

⁵³⁵ Grontmij Water and Restroffen by, Institutional and Legal Strengthening in the Field of Water Management in Turkey, Report on the legal and institutional developments required to meet EU legal requirements in the Field Of Water Management in Turkey, De Bilt, 18 .02.2003, p. 12.

Waters, Act No. 831, the Civil Code, Act No.743). The second category is comprised of laws governing the roles and responsibilities of regional or national administrations (e.g. Act No.6200 on Organization and Duties of DSİ; Act No. 505 on Organization and Duties of the Ministry of Energy and Natural Resources; Act No. 2819 on Establishment of Administration of Electrical Works and Survey). The third category consists of laws deliberating the roles and authorities of municipalities (Act No. 5216 on Metropolitan Municipalities; Act No. 4759, Law of Bank of Provinces; Act No. 1593, the Law on General Protection of Health) Legislation related to hydro-electrical energy forms the fourth category (Act No. 4628, Electrical Market Law; Act No. 5624 Energy Efficiency Law). Baykan et al. also mentions another category, although they did not list it as the fifth category. This category involves the legislation only indirectly related to water law, such as the Act No. 2510 the Law on Settlement, or Act No. 3621 the Coast Law.⁵³⁶

When the content and scope of the laws and regulations are analyzed from a discourse analysis perspective, it is very difficult to make classifications of these kinds. This is because, many legislation entail provisions related to other categories. For instance, the Law on Groundwater contains elements with regard to both organizational aspects (roles and responsibilities of organizations) (e.g. Article 2) as well as provisions related to the protection of water quality (e.g. Article 14).⁵³⁷ This is applicable for many of the legislation.⁵³⁸

Therefore, instead of categorizing the water related legislation according to operational purposes as Baykan et al. did, or around the several themes as Grontmij did, this dissertation adopts the view that water related legislation could be categorized according to their major focus. Therefore, water relation legislation is

⁵³⁶ Nesrin Baykan et al., *op. cit.*, pp. 5-6.

⁵³⁷ Article 2 defines the role of DSİ in determination of groundwater utilization areas, while Article 14 lists the requirements related to the quality of groundwaters. Therefore, it is difficult to put Act No. 167 into a category created according to operational purposes or several themes around which legislation are classified.

⁵³⁸ For instance, see Act No. 831, Law on Waters.

divided into two categories: water specific legislation, and ancillary legislation on water. Additionally, the recent decade witnessed a formation of a new body of legislation which is mainly targeting the EU harmonization. This formation has a potential to influence and change both water specific and ancillary legislation. Table 5. and Table 6. summarizes the major legislation of this emergent stage in Turkish water related legislation.

Hence, following provides a list of the water related legislation enacted since the foundation of the Republic. This list is not an exhaustive one and some other pieces of legislation might -very little- relevance to water. These are the most prominent ones governing water issues in the country.

Table 6. Water Specific Legislation

Act No. 831 on Waters (Law on Waters) (Articles 2, 7, and Annex V) 1926
Act No. 6200 on the Organization and Duties of the State Hydraulic Works (Articles 1 and 2/b) 1953
Act No. 167, and By-law on Ground Water Resources 1960
Act No. 178 on the Supply of the Waters for the Military Bases 1960
Act No. 1053 on Law on Supply of Drinking, Domestic, and Industrial Water to Cities with Municipalities 1968
Act No. 1380 and By-law on Water Products 1971
By-law 13783 on Fosses to be built when construction of sewage is not possible 1971
Act No. 2560 on the Organization and Duties of the Water and Sewage Administration of İstanbul (Articles 1 and 2/a) 1981
By-law 19919 on Control of Water Pollution 1988 (ABOLISHED by By-law. 25687 on the Control of Water Pollution, 2004, updated again in 2008)

Table 7. Ancillary Legislation on Water

Act No. 442 on Village (Articles 1, 6, and 13) 1924
Act No. 1580 on Municipalities (Article 19/4 A) 1930 (ABOLISHED)
Act No. 1593 on General Hygiene 1930
Act No. 5442 on Special Provincial Administration 1949
Act No. 2634 on Promotion of Tourism 1982
Decree-Law No. 181, on the Organization and Duties of the Ministry of Health (Article 9/e) 1983
Act No. 2872 on Environment 1983
Act No. 3155 on Agricultural Reform (Article 2/c) 1985
Act No. 3202 on the Organization of the General Directorate of Rural Services (Article 2/d) 1985 (ABOLISHED, 2005)
Act No. 3416 Amending Act No. 2872 on Environment 1988
Decree-Law No. 383, on the Establishment of Special Environment Protection Presidency 1989
Decree-Law No. 441, on the Establishment of Min. of Agriculture and Rural Affairs 1991
Decree-Law No. 443, on the Establishment and Duties of the Ministry of Environment 1991 (ABOLISHED, 2003)
By-law 21489 on Environmental Impact Assessment 1993
Act No. 3958 adopting Ramsar Convention (Agreement no. 21937, 1994)
Act No. 4562 on Organized Industrial Sites 2000
By-law 24656 on Protection of Wetlands 2002 (ABOLISHED with By-law 25818, 2005)

Table 8. New Legislation Adopted by the Single Party Government and within the EU Harmonization Framework (2003-2011)

Act No. 4856 on Ministry of Environment and Forestry 2003
Act No. 4950 Amending Act no. 1380 on Water Products 2003

Table 8. New Legislation Adopted by the Single Party Government and within the EU Harmonization Framework (2003-2011) continued

By-law 26048 on Quality of Swimming Waters 2003 (modeled on “Yüzme Suyu Kalitesine Dair 76/160/EEC sayılı Konsey Direktifi”)
Act No. 5197 on the Special Provincial Administrations 2004, Act No. 5312 the Special Provincial Administrations, 2005
Act No. 5215 on Municipalities 2004 (ABOLISHED by Act No. 5393 on Municipalities 2005)
Act No. 5216 on Metropolitan Municipalities 2004
Act No. 5237 Turkish Penal Code 2004
By-law 25377 on Protection of waters from nitrate pollution caused by agricultural activities 2004
By-law 25657 on Waters with Natural Minerals 2004
By-law 25687 on the Control of Water Pollution 2004
Act No. 5302 on the Special Provincial Administrations 2005
Act No. 5326 on Minor Offenses (“Kabahatler Kanunu”) 2005
Act No. 5286 on Abolishment of GDRS (General Directorate of Rural Affairs) 2005
Act No. 5393 on Municipalities 2005
Act No. 5436, Amending the Decree-Law No. 441 2005
By-law 25730 on Waters for Human Consumption 2005
By-law 25818 on Protection of Wetlands 2005
By-law 25999 on Quality of Surface Waters used for Drinking Water (75/440/EC as amended by 79/869/EC) 2005
By-law 26005 Control of the Pollution Caused by Dangerous Substances in Water and its surrounding (1Tehlikeli Maddelerin Su ve Çevresinde Neden Olduğu Kirliliğin Kontrolü Yönetmeliği 76/464/ AB”) 2005
By-law 26040 Amending Reg. 26005 (only addenda changed: Ek-1[very dangerous substances] and Ek-2[specific rules one by one: mercury, cadmium]) 2005
Act No. 5491 Amending Act no. 2872 on Environment 2006
By-law 26047 on Treatment of Urban Wastewater 2006

Table 8. New Legislation Adopted by the Single Party Government and within the EU Harmonization Framework (2003-2011) continued

By-law 26727 on Geothermal and Mineral Waters 2007
Act No. 5625 Amending –among others- Act No. 1053 (1968) 2007
Act No. 5686 on Geothermal and Mineral Waters 2007
By-law 26786 Amending the Reg. on Control of Water Pollution 2008
By-law 26939 on Environmental Impact Assessment 2008
Act No. 5177 Amending Act no. 2560 (Act on ISKI, 1981) 2004

Apart from the characteristics of the current Turkish water management legal framework, there are important points to be mentioned with regards to the changes in legal rhetoric applied in Turkish water management setting. Section below presents a discussion on these features.

4.2.4. Legal Framework: An Analysis

Adopting the above classification and a discourse analysis perspective, several characteristics of legal framework of current Turkish water management are determined. This analysis will provide the continuing priorities and changing approaches in water management legislation in Turkey.

Concerning the characteristics of the legal framework prevailing in Turkey’s water management one can recognize that many of the water specific laws are outdated, and it is officially stated that they are insufficient to satisfy the current needs.⁵³⁹ For instance, the Law on Waters dates back to 1926. Similarly, more than half a century passed since the enactments of Law on the Organization and Duties of the State Hydraulic Works (1954) and Groundwater Law (1960). Besides, another reason for this fact is related with some fundamental changes in conditions. For instance, the Act No. 167 adopts the “first come first served” understanding with regards to

⁵³⁹ Ahmet Güneş, “Avrupa Birliği Su Çerçeve Yönergesi ve Türk Su Hukuku”, paper presented at *EU, German and Turkish Environmental Law Symposium* on 18-20 October 2010, İstanbul, Turkey. (AB, Türk ve Alman Çevre Hukuku Sempozyumu) , p. 10.

granting groundwater utilization permits. This was not so problematic at the time of its enactment. The population of Turkey at that time was around 27 million⁵⁴⁰ and the available reserves were able to meet the number of applications. But as of 2010, the population increased to 73 million. As Ercüment İmmet (the Branch Manager (Groundwater and Geotechnic, DG XI, DSİ, Edirne) stated the available groundwater reserves are now unable to satisfy the demands. Another example is the Act No. 831, Law on Waters. The Article 5, which required the preparation of water projects by municipalities within the 5 year period beginning from the Act's entry into force, is no more applicable. In addition to these problems, these laws do not reflect the approach of integrated management of waters, although this approach is adopted in several official documents in Turkey such as the Ninth Five Year Development Plan.⁵⁴¹

However, the legislation excluding the laws (acts) indicates a different picture. Most of the legislation other than laws, namely regulations and statutes; has been enacted after 2004, particularly within the context of EU harmonization. Therefore, while sub-law legislation is being recently updated, main laws remained largely intact. In this context, the need for updating the *laws*, either via amending them or via enactments of new laws has become more apparent in recent years.

Nevertheless, considering the changes in legal setting from 1980 onwards, one can recognize the emergence of a new legal structure of environmental protection and water management in Turkey basically driven by an increased dynamism in enactment of domestic legislation; the expansion of activity in terms of bilateral and multilateral international agreements; and Turkey's efforts to meet EU membership

⁵⁴⁰ See <http://www.tuik.gov.tr/Gosterge.do?metod=IlgiliGosterge&sayfa=griris&id=3609>, accessed on 17.03.2011.

⁵⁴¹ Republic of Turkey, State Planning Organization, *Ninth Five Year Development Plan*, Official Gazette No. 26215, 1.7.2006, p. 76.

criteria. As a result, the visibility of water management issues in particular, and environmental matters in general, increased at the political scene.⁵⁴²

The fact that Turkey's water related legislation does not include guidelines on major WFD concepts or issues, such as "integrated water management", "water management based on river basin", "environmental objectives", "river basin management plans", "program of measures", "administrative arrangements", "public participation", and "cost-recovery".⁵⁴³ It should be noted, however, although, Turkish water related legislation do not explicitly refer to these concepts, there are some forms of adopted practices partly which satisfy the requirement that are meant by these terms. An example could be that the Environmental Impact Assessment framework provides a mechanism for protection of environment.

One of the major attributes of the legal setting of the water management in Turkey is the overwhelming role of public authorities, unlike some countries in which private companies play greater roles⁵⁴⁴. This fact is emphasized in a recent official report, namely "Dokuzuncu Kalkınma Planı, Toprak ve Su Kaynaklarının Kullanımı ve Yönetimi, Özel İhtisas Komisyonu Raporu". It is stated that the role of public authorities is definitive in many aspects of water management in Turkey, including the planning activities on management and use, works of improvement and development, determination and enforcement of protective measures.⁵⁴⁵ Hence, it could be argued that for catalyzing change in water management policy in Turkey, public authorities' involvement must be secured first.

⁵⁴² Ayşegül Kibaroğlu and ArgunBaşkan, "Turkey's Water Policy Framework", in Ayşegül Kibaroğlu, Waltina Scheumann and Annika Kramer (eds.), *Turkey's Water Policy*, forthcoming, Springer Verlag, Berlin, 2011, page not available

⁵⁴³ Ahmet Güneş, *op. cit.*, pp. 12-13.

⁵⁴⁴ For instance, in England and Wales, water services are privatized beginning from 1989.

⁵⁴⁵ Republic of Turkey, State Planning Organization (Devlet Planlama Teşkilatı), *op. cit.*, "Özel İhtisas Komisyonu...", p. 63.

Another major characteristic of legal framework of the water management in Turkey is that there is a lack of clarity with regards to user rights and ownership. According to the customary practice, assigned user rights enjoy the right of “prior appropriation”⁵⁴⁶. These user rights cannot be sold or transferred. User rights to water resources are subject to title deed registration⁵⁴⁷. In other words, for a person to establish his/her title to the land and water resources of that land, all important instruments (including water) related to that land should be registered. Until 1960, this legal framework for “user rights” was also applicable for groundwater resources. But with the Act No. 167, groundwater resources were transferred from the “private” to the “public” domain. While private waters are subject to detailed legislation, there are no specific legislation governing public waters (“umuma ait sular” in Turkish).⁵⁴⁸ Another view on the issue, however, asserts that DSİ is the ultimate authority to allocate public water resources. Former legal adviser at the DSİ, Özdemir Özbay contends “Act no. 6200 on the Organization and Duties of the State Hydraulic Works empowers the DSİ to coordinate water use at the national level, despite existence of separate enactments dealing respectively with matters such as rural and urban water supply, groundwater, irrigation and hydropower”. Obtaining a prior approval from DSİ concerning the source and volume of water to be used for each project is necessary for any agency which is involved in a water development project or investing in a water-sector. Additionally, when a conflict between a user and the supplier, namely DSİ, about public surface and groundwater resources emerge, the cases are dealt with by the administrative courts, instead of courts of justice. The administrative courts’ and the Council of State (“Danıştay” in Turkish)⁵⁴⁹ decisions

⁵⁴⁶ According to this principle, “the first person to use a quantity of water from a water source for a beneficial use has the right to continue to use that quantity of water for that purpose. Subsequent users can use the remaining water for their own beneficial purposes provided that they do not impinge on the rights of previous users”.

⁵⁴⁷ “Tapu sicili” in Turkish.

⁵⁴⁸ İsmail Duygulu, *op. cit.*

⁵⁴⁹ Highest administrative court in Turkey.

validate the DSİ as the ultimate authority to allocate public water resources.⁵⁵⁰ Apart from the issue on public waters in general, legislation on user rights and ownership is not clear for surface waters, as well. Water is allocated, in practice, by a variety of agencies and users operating independently of each other. These include DSİ, surface and groundwater water management organizations (irrigation associations, irrigation cooperatives etc.) and industries.

Also, a certain level of decentralization in some aspects of water management in Turkey became apparent in recent decades. Five steps are remarkable in this respect. First step is the establishment of autonomous entities for within metropolitan municipalities' structures (as an independent entity in 1981, as municipalities' subordinate organization from 1984 onwards). Their budgetary autonomy set the ground for searching external funds on their own, out of the national budget framework. Second step is the closure of GDRS and the subsequent transfer of GDRS tasks to SPAs, i.e. to provincial level in 2005. Third is the transfer of irrigation networks to irrigation associations (accelerated in 1993 onwards). These transfers are further reinforced by the enactment of legislation specific to irrigation unions⁵⁵¹ in March 2011. Fourth example for decentralization is the transfer of the GAP Regional Administration ("Güneydoğu Anadolu Projesi Bölge Kalkınma İdaresi" in Turkish) to Şanlıurfa, a city of the region concerned, in 2008.⁵⁵² Fifth step is related with the water quality management: By-law on Control of Water Pollution (2008) has increased role for Provincial Directorates of MoEF.

At first sight, these steps could be seen as positive efforts towards a more decentralized water management which could foster increases in efficiency.

⁵⁵⁰ Özdemir Özbay, *op. cit.*

⁵⁵¹ Act No. 6172, Official Gazette No. 27782, 8.3.2011.

⁵⁵² The GAP RDA's main role is not related with "water management" *per se*, rather it is about "coordination" of the sustainable human development activities, including *the* water management. Thus, some of its coordinating activities have relevance with water management issues. All in all, transfer of GAP RDA headquarters to Şanlıurfa is to be seen as a step towards granting more autonomy to the local centers.

However, a closer look in these actions reveal that they lack a coherent strategy towards a common envisaged end; rather appeared as “impromptu” actions of the governing elites seeking to reach short-term political goals. There was no long-term thinking behind these actions which could make them part of a broader water management setting that could be designed to overcome enduring problems such as lack of participation in decision making, realization of local solutions to local settings (realization of “subsidiarity” principle). Therefore, these steps were not realized in a coordinated fashion, resulting in creation of only very limited improvements.

Another characteristic of Turkish water management is that Turkey has no comprehensive *framework* water law⁵⁵³, but, as it could be seen above, numerous laws which regulate public sector activity by, for example, defining the responsibilities for the construction of water networks, operation and maintenance obligations, and their financing. As a result of Turkey’s water management history which composed of enactments of numerous laws, by-laws, etc., overlapping and competing duties and responsibilities between the different organizations are said to exist, and a lack of co-operation became apparent. Because different laws and by-laws authorize a number of different institutions to manage the same water resources, conflicts over tasks and responsibilities in the water sector have emerged.

For instance, the By-law on Water Pollution Control authorizes numerous Ministries and other official organizations for controlling different aspects of water pollution. The problem with this approach lies in the fact that, dealing with water pollution through uncoordinated efforts of multiple organizations is not able to yield notable results. Because water pollution does not know organizational borders, inevitably overlapping competencies occur. Water pollution in surface waters may pollute groundwaters through leakages. To illustrate, in accordance with the Act No. 2634 on Promotion of Tourism (“Turizmi Teşvik Kanunu” in Turkish)⁵⁵⁴ the Ministry of

⁵⁵³ Grontmij, *op. cit.*, p. 12.

⁵⁵⁴ Act No. 2634, Official Gazette No. 17635, 16.03.1982.

Tourism and Culture has mandate to control water pollution within Culture and Tourism Protection and Development Zones (“Kültür ve Turizm Koruma ve Gelişim Bölgeleri” in Turkish)⁵⁵⁵. Meanwhile, the evaluations and analyses of groundwater pollution are conducted by DSİ, while enforcement regarding pollution of groundwater is to be done by MoEF. Because of the holistic nature of water cycle, all these fragmented mandates are not capable of creating a coherent framework through which the issue of water pollution is effectively dealt with.

This also explains why Turkey’s water management is commonly characterized by outsiders as “fractionalized” and “complex”. Various documents refer to the complicated and inefficient legal and administrative structure of water management in Turkey. This structure of Turkey’s water management seems to be one of the challenges faced in membership negotiations with the European Union.

Against this background, a framework law which sets out the guiding principles, norms, rules, procedures in water resources management and allocation, has begun to be seen as essential⁵⁵⁶. The need for “the process of formulating, consulting on, and passing a modern water law that gives legally enforceable water rights to water users, and which establishes a water resources management and regulatory authority with full legal powers to license and enforce water abstractions and discharges” is emphasized. One of the most significant elements of this new structure should be empowerment of this legal authority with a mandate for central planning on the basis of river basins.⁵⁵⁷ Creating such legal authority and establishing legally respected individual water rights could contribute to a change in adopted practices through which water resources are managed and developed.

⁵⁵⁵ Article 6.

⁵⁵⁶ Mehmet Emin Barış and Aybike Ayfer Karadağ, “Water Resources Management Issues in Turkey and Recommendations”, in *Journal of Applied Sciences*, Vol. 7, No. 24, pp. 3900-3908.

⁵⁵⁷ Dursun Yıldız, statement, 12.04.2010, available online at http://topraksuenerji.org/su_kaynaklari_bakanligi_icin_2N.html, accessed on 04.08.2010.

The need for a framework law is also mentioned with the context of Turkey's possible EU membership. With this token, A World Bank draft report in 2006 argued that the enactment of the framework water law will be a major requirement for Turkey's accession to the European Union.⁵⁵⁸ In the same vein, The Report on Legal and Institutional Developments Required to Meet EU Legal Requirements in the Field of Water Management in Turkey states “[h]aving a comprehensive Water Law would make it easier to transpose the daughter directives, which are still being developed under the WFD. It would make it also easier to transpose the current EU water directives and to repeal those regulations, which transpose directives, which will be repealed once they are fully implemented by the WFD.”⁵⁵⁹ In this view, the new Water Law could be beneficial in demarcating the boundaries of the duties of the MoEF other official organizations. Hence, the overlaps and duplication in responsibilities between the organizations could be abolished, or at least, be minimized.⁵⁶⁰

The governmental authorities agrees with the view as a reappraisal of water legislation and introduction of a new comprehensive water law, along with the re-organization of the organizational setting is necessary, especially during the harmonization with the EU requirements.⁵⁶¹

Therefore, a debate around the enactment of a framework water law, which would deal with particular problems of Turkey's water management (i.e. fractionalization, a lack of legal clarity on user rights, among others, and “water allocations”, “different stakeholders' roles in water management issues”, “water quality matters”⁵⁶²) has

⁵⁵⁸ World Bank, *op. cit.*, p. 76.

⁵⁵⁹ Grontmij, *op. cit.*, p. 12.

⁵⁶⁰ *Ibid.*

⁵⁶¹ See Republic of Turkey, State Planning Organization, *op. cit.*, “Özel İhtisas Komisyonu...”, pp. 62-67.

⁵⁶² Ayşegül Kibaroğlu and Argun Başkan, *op. cit.*, page not available.

evolved. Several drafts⁵⁶³ for such a comprehensive water law have been prepared beginning from late 1990s.

The most significant of these was the “Draft Water Law” which was prepared by the DSI’s legal division in 2001. During the drafting process, legal experts of DSI analyzed various countries water related legislation. These countries include the ones “which established legal structures such as France or the ones which have passed through a recent restructuring such as Brazil and South Africa.”⁵⁶⁴ The draft law has not yet been adopted by the Parliament. It is asserted that the delay in Parliamentary procedures regarding the framework water law stems from the fact that a water law has not been taken as a priority by the Government.⁵⁶⁵ However, in the National Program (2008), which outlines the actions to be completed in the context of EU accession negotiations, the enactment of such a comprehensive water law by 2011 is pledged. In this background, one may expect that the Government would send the law proposal to the Parliament in that year.

The enactment of this law will comprise the biggest part in transposition of the WFD. This is why both the Strategy Document and the Draft National Implementation Plan mentions the date of 2011 as the date for incorporation of WFD into Turkish legislation. From an analytical point of view, it could be argued that the EU harmonization framework has become one of the major catalysts of change in Turkish Government’s attitude regarding the enactment of a comprehensive water law.

⁵⁶³ A draft water law was prepared through by contributions of official organizations under the leadership of DSI. Apart from DSI’s study, another draft law, namely Draft Water Law (“Su Kanunu Taslağı” in Turkish) was prepared by TEMA. Besides, USİAD (Turkish acronym for “Ulusal Sanayici ve İşadamları Derneği- National Association of Industrialists and Businessmen) prepared a draft law for creation of a “Water Resources Ministry”.

⁵⁶⁴ Ayşegül Kibaroğlu and Argun Başkan, *op. cit.*, page not available.

⁵⁶⁵ *Ibid.*

Apart from DSI's study, another draft law, namely Draft Water Law ("Su Kanunu Taslađı" in Turkish) was prepared by TEMA. In that Draft, four major needs are emphasized: need for the protection of quality and quantity of Turkey's water resources, reasonable and economic use of water, integrated river basin management and need for continuation of state involvement. Besides, responsibilities of public authorities should include water resources development actions like water harvesting ("su hasadı" in Turkish), increase in water storage capacities, methods and techniques aiming at reducing the surface evaporation. TEMA's Draft was prepared in light of Act No. 4342, the Law on Pastures ("Mera Kanunu" in Turkish) (1998) and the Act No. 5403, the Law on Soil Protection and Land Use ("Toprak Koruma ve Arazi Kullanım Kanunu" in Turkish) (2005). Also, USİAD (Turkish acronym for "Ulusal Sanayici ve İşadamları Derneđi"), National Association of Industrialists and Businessmen) prepared a draft law for creation of a "Water Resources Ministry". During preparatory works of the Draft, relevant water related legislation from Mexico, Denmark, France, South Africa, Brazil, Israel, United Kingdom, Germany and Spain are studied. Also, the WFD was taken into account, as well. Prepared with the consultancy of a working group called "Toprak-Su-Enerji", this draft, which was published on March 10, 2010, proposed the creation of a single authority responsible for all aspects of water resources management.

Analyzing all these drafts, some common elements are recognized. Additionally, these common elements also comprise some of the basic principles of the WFD. First, all drafts acknowledge the need for a "river basin level" in water management policy. "River basin" forms the main unit of WFD implementation. Secondly, all drafts emphasize the need for continuation of public involvement in water management policy. From the perspective of the WFD, Member States are responsible from the implementation of the Directive. Third, drafts give due diligence to protection of water resources in terms of both quantity and quality. This is a principle also supported by the WFD.

In the final analysis, because of the fact that a consensual understanding has seemingly emerged with regards to these elements, it could be expected that these elements would likely be incorporated into the new water law. If this happens, this would also mean that the transposition of some of the major principles of the WFD is achieved.

The complexity in legal setting and the characteristics it brought about to Turkey's water management, have reflections in the policy networks, which is composed of the actors involved in water management and their interrelationships. Thus, as it will be showed in the relevant section, legal texts will be the basis for creating the policy networks via listing the actors and their respective roles in water management in Turkey. Before analyzing the character of and changes in these policy networks in time, it is now time to list and discuss the actors empowered through the laws listed above, and their roles in water management. Then, the networks which are created by these actors are to be demonstrated and discussed.

4.3. Conclusion

There is significant number of actors involved in different aspects of water management issues in Turkey. This is basically because of the legal framework, which is composed of more than 70 laws and by-laws adopted from 1920s onwards, in relation to water management policies.⁵⁶⁶ As Bilen contends, in time, new laws and organizations are introduced yet without properly delineating the mandates between these newly introduced institutions and the existing ones. In this respect, not only over-fragmentation, but also duplications occurred which appeared as a factor hindering a successful water management in the country.⁵⁶⁷

⁵⁶⁶ Aybike Ayfer Karadağ, "Türkiye'deki Su Kaynakları Yönetimine İlişkin Sorunlar ve Çözüm Önerileri", *TMMOB 2. Su Politikaları Kongresi*, p. 392.

⁵⁶⁷ For instance, establishment of Metropolitan Municipalities with the mandates of flood control and financing and implementing water supply and sewerage systems caused duplications with DSİ and Bank of Provinces which previously were the responsible organizations for these tasks.

The methodology in analyzing the water related legislation in Turkey in this Chapter is an examination of the discourses embedded in legal texts. Legal texts are regarded as important sources for discourse analysis. It is noted that, the discourses should not be taken as purely social or ideational, because, they can be grasped at material and technical level.⁵⁶⁸ It is explained that legal texts represent the material dimension of discourse. Therefore, studying the wording of and changes in legal texts, this chapter analyzed the enduring and changing elements of discourses that these legal texts contain.

Taking into account of legal framework, it is possible to divide water management policies' history in Turkey into three successive phases. The first phase covers the first thirty years of the Republic history. The second phase lasted from mid-1950s to early 1980s. Finally, the third phase covers the period from early 1980s onwards.

The first phase is characterized by enactments of framework laws, such as Village Law (1924), Law on Waters (1926), or Law on Municipalities (1930). Given the lack of water-specific legislation and official organizations, this phase was primarily consisted of development of individual projects. The lack of technical personnel and data on rivers also marked the phase and prevented a systematic approach to water resources development. One of the priorities of the era was to improve public health. This priority had reflections on water issues, as well. For instance, the main responsibility to implement the Law on Waters was given to the Ministry of Health and Social Aid. Similarly, the drying up swamps was seen as essential for the elimination of certain diseases like malaria. This phase essentially covers the first three decades of the Republic.⁵⁶⁹

The second phase was characterized by the introduction of systematic water development works in Turkey. The inception of the second phase was marked by the establishment of DSİ with a specific Law (1954) on its organization and duties.

⁵⁶⁸ William Walters, *op. cit.*, p. 92.

⁵⁶⁹ Özden Bilen, *op. cit.*, "Türkiye'nin Su..", p. 293.

Creation of DSİ with necessary economic resources and technical personnel provided an impetus for water resources development works on the basis of technical and economic essentials. In this respect, first, exploratory studies are done in river basins across the country. Hence, this phase is called as “the phase of systematic planning at the basin level”.⁵⁷⁰ Also, in order to provide data required during exploratory studies, which was lacking in that time, observatory studies were conducted and gauging stations were established. As the studies on different basins necessitated specific organizational setting, in 1960s, DSİ adopted the view that water resources development planning should be done at the place of water resource itself. So, DSİ began to establish Directorate Generals. In this phase, two Laws reinforced the status of DSİ as the major public agency in development of water resources. The first law is the Groundwater Law (1960), which made DSİ as the ultimate responsible for utilization and management of groundwater. The second law is the Act No. 1053 (1968) which granted DSİ the responsibility to provide water supply for the cities with a population greater than 100.000. The construction of physical works for drinking water supply, hydropower generation, irrigation development and flood control were four main priorities of this phase. In this regard, it is argued that, beginning from mid-1950s until early 1980s, water management in Turkey is distinguished by design and construction of water development works aiming to satisfy the specific sectoral needs and aiming to prevent water related damages.⁵⁷¹ While environmental concerns are largely ignored during the second phase, one can still discern some embryonic forms of practices with regard to environmental protection. For instance, DSİ has begun to construct fish ladders to help migratory fish in physical constructions diverting waters from rivers which are not storing water (i.e. dams are excluded) in 1960s.⁵⁷² Similarly in 1975, DSİ contributed to the

⁵⁷⁰ Republic of Turkey, State Planning Organization, *op. cit.*, “Özel İhtisas Komisyonu...”, p. 104.

⁵⁷¹ *Ibid.*

⁵⁷² Özden Bilen, *op. cit.*, “Türkiye’nin Su...”, p. 297.

organization of one of the first scientific meetings during which interrelations between water environment was discussed.⁵⁷³

The third phase is marked with changing priorities in water management policies. Beginning from 1980s, the rapid urbanization and industrialization had negative impacts on water quality and on available water quantity. Therefore, the priorities with regard to water allocation shifted from previously satisfying the irrigational needs only, more to drinking water supply and industrial water supply. Therefore, the competition among different water uses became important with considerable ramifications. These include the discussions of the issues such as inter-basin water transfers, and water resources planning and management at the basin level.⁵⁷⁴ The rapid urbanization and industrialization in proximity to bigger cities necessitated different models in water supply and water services in metropolitan areas. This resulted in the establishment of autonomous water services administration within municipal administrative level. The Act No. 2860, which established first one of these administrations, namely İSKİ, is noteworthy. The negative externalities of urbanization and industrialization have another ramification in water management policies, which is the increase of environmental sensitivities. The enactment of the Law on Environment in 1983 and then the introduction of the Environmental Impact Assessment Directive in 1993 made DSİ responsible for analysis of the environmental impacts of the projects it prepares directly or through private firms.⁵⁷⁵ The establishment of the Ministry of Environment in 1991 effectively raised the status of environment in political scene, including the water management issues. The phase also witnessed the introduction of water quality to the water management policies prevailing in Turkey. The introduction of the Water Pollution Control By-law of 1988 is significant in this respect. Later in this phase, the impact of European Union has begun to be observed. Beginning with the official application of Republic

⁵⁷³ Together with Association for Protection of Turkey's Nature (Türkiye Tabiatını Koruma Derneği). See *ibid.*

⁵⁷⁴ Republic of Turkey, State Planning Organization, *op. cit.*, "Özel İhtisas Komisyonu...".

⁵⁷⁵ Özden Bilen, *op. cit.*, "Türkiye'nin Su...".

of Turkey for EU membership, the legislation in Turkey has increasingly become to be examined vis á vis the legislation adopted at the EU level. From early 2000s onwards, i.e. with the official declaration of Turkey as a candidate country to the EU, introductions of the by-laws in water management gained momentum. The EU impact also contributed to the debate where enactment of a framework water law is being discussed, since introduction of such a law is recommended by the EU circles.

The third phase also marked by a certain level of decentralization in some aspects of water management. Five steps are remarkable, in this respect. First is the establishment of autonomous entities for within metropolitan municipalities' structures (as an independent entity in 1981, as municipalities' subordinate organization from 1984 onwards). Their budgetary autonomy set the ground for searching external funds on their own, out of the national budget framework. Second step is the closure of GDRS and the subsequent transfer of GDRS tasks to SPAs, i.e. to provincial level in 2005. Third is the transfer of irrigation networks to irrigation associations (accelerated in 1993 onwards). Fourth is the transfer of the GAP Regional Administration ("Güneydoğu Anadolu Projesi Bölge Kalkınma İdaresi" in Turkish) to Şanlıurfa, a city of the region concerned, in 2008.⁵⁷⁶ Fifth step is related with the water quality management: By-law on Control of Water Pollution (2008) has increased role for Provincial Directorates of MoEF.

One of the notable trends during the third phase is "privatization". Increasing the autonomy of municipal water services sections (1981 and 1984), triggered a wave of

⁵⁷⁶ It should be noted that the GAP RDA's main role is not related with "water management" *per se*, rather it is about "coordination" of the sustainable human development activities, including *the* water management. Thus, some of its coordinating activities have relevance with water management issues. Examples are education for farmers, . Also, GAP RDA works in cooperation with DSİ in assessing groundwater potentials in some plains (Ceylanpınar and Harran), and management-operation-maintenance of irrigation systems (also known as GAP-MOM); and in cooperation with DSİ and MARA, regulation of water in irrigation canals and projects designed to determine best irrigation systems in the light of the climate of the region, soil characteristics, water availability and established practices of farmers. GAP RDA works in conjunction with the Agency for Agrarian Reform, DSİ, Cadastral Office and MARA in land consolidation projects. In short, transfer of GAP RDA headquarters to Şanlıurfa is to be seen as a step towards granting more autonomy to the local centers.

privatization in some examples.⁵⁷⁷ Apart from this, the practice of using subcontractors (“taşeron” in Turkish) through tender operations for realization of a wide range of works (surveys, projects, constructions) gained prominence in state organizations beginning from mid-1980s. In this context, greater private sector involvement for generation of hydroelectricity and water resources development is encouraged through the introduction of Build-Operate-Transfer (BOT) scheme in 1984 first; and Electricity Market Law No. 4628 in 2001, and the Renewable Energy Law No. 5346 in 2005.

The legal framework of water management in Turkey have developed hand in hand with a certain organizational setting and institutional patterns, such as pricing, public participation, transboundary relations, monitoring. The relevant Chapter will discuss the historical development and current status of these institutions. This analysis will reveal the major problem areas in institutional practices adopted in Turkey. It will enable us to compare and contrast these institutional practices with those proposed by the WFD. Both the institutions *and* legal framework has give way to formations of and changes in specific types of policy networks as corollary. In other words, the actors involved in water management in Turkey, through their powers given to them by relevant laws and by-laws which will be discussed in the sixth chapter, form dynamic networks of policy. An analysis of the character of and changes in these network in time could have and explanatory power of where Turkish water management currently stands, where it is headed to, as well as what could be expected to change with regards to WFD harmonization

⁵⁷⁷ For instance, Kocaeli, Antalya metropolitan municipalities; ÇALBİR in Çeşme municipality, İzmir.

CHAPTER 5

Institutional Arrangements in Turkey's Water Management Policy

5.1. Introduction

It is recognized that the notion of “institutions” has relevance for many aspects of social life, including water management. Institutions are important, because they have multiple impacts not only on individual behavior, but also on resource management⁵⁷⁸. With this token, it has been observed that both the preservation and use of resources, like water, “are the direct and indirect consequences of institutional incentives”.⁵⁷⁹ In short, the seriousness of the endeavor of understanding institutions is acknowledged.⁵⁸⁰

Despite the recognition of the relevance of the discussion of institutions, it is often regarded that there is no “royal road” in defining the institutions. In other words, institutions are defined in many different ways.⁵⁸¹ One of the basic reasons for this lies in the diversity and complexity of situations of contemporary life⁵⁸². However, it is out of scope of this chapter to discuss details of these variants of definitions. According to one of the widely cited definitions, institutional arrangements are defined as “sets of working rules that are used to determine who is eligible to make decisions in some arena, what actions are allowed or constrained”. These rules

⁵⁷⁸ Ingrid Kissling-Näf and Stefan Kuks, *op. cit.*, p. 1.

⁵⁷⁹ *Ibid.*, p. 4.

⁵⁸⁰ Elinor Ostrom, *op. cit.*, p. 3.

⁵⁸¹ For an earlier account which presents the different definitions of institutions, see Elinor Ostrom, An Agenda for the Study of Institutions, in *Public Choice*, Vol. 48, pp. 3-25, 1986. With respect to relevance of recent discourse on institutions to water management, and for a number of definitions for institutions, see Chennat Gopalakrishnan, “Water Allocation and Management in Hawaii: A Case of Institutional Entrophy”, in Cecilia Tortajada and Asit K. Biswas (eds.), *op. cit.*, pp. 1-3.

⁵⁸² *Ibid.*, p. 4.

“describe what procedures must be followed, what information must or must not be provided and what payoffs will be assigned to affected individuals.”⁵⁸³

It is widely accepted that in the field of water policy, in both developed and developing countries, policy and implementation processes have greatly changed.⁵⁸⁴ It is shown that institutional patterns governing water sector are changing remarkably throughout the world in the recent decades.⁵⁸⁵ Within this context, present chapter is evaluating water related institutions in Turkey. The reason for such a discussion lies in the fact that institutions comprise a significant part of the water management policy framework in Turkey. Without a comprehensive discussion of this element of water management policy in Turkey, analysis of the changes that WFD has been/will be inducing will not present a complete picture. Also it is argued that, as most of the changes that need to be done in the context of WFD harmonization process are to be realized in the institutional dimension, this discussion is an essential part of the dissertation.

It should be noted that the term “institutions”, through adoption of a broader notion as this dissertation does, encompasses not only tangible formations of social action like organizations, but also intangible rules of policy processes and social interactions. Within this framework, institutional arrangements would be categorized into two forms. The first form entails “hard” institutions, namely organizations; which are the embodiments of social administrative rules. Organizations are groups of individuals who work toward a common goal or objective and have common interests.⁵⁸⁶ Political parties, churches, schools, unions, or government agencies are

⁵⁸³ Elinor Ostrom, *op. cit.*

⁵⁸⁴ Hans Bressers, Laurence J. O'Toole and Jeremy John Richardson (eds.), *Networks for Water Policy*, Routledge, London, 1995, p. 17.

⁵⁸⁵ R. Maria Saleth and Ariel Dinar, “Institutional Changes in Global Water Sector: Trends, Patterns and Implications”, in *Water Policy*, Vol. 2, 2000, p. 175.

⁵⁸⁶ For a wider discussion of the issue, see Rosalinde Klein Woolthuis, Maureen Lankhuizen and Victor Gilsing, *op. cit.*

some examples of organizations. Examples of hard institutions, with regards to the topic of this dissertation, include DSİ, EİEİ, MoEF, MoH, etc. The second form would be the institutionalized patterns of practices (soft institutions). Examples to second form of institutions may involve privatization, pricing and public involvement.⁵⁸⁷

This chapter is basically divided into two parts, one focusing on the organizations, the other part focusing on institutionalized rules that are governing water management policy. Along with this grouping, throughout the chapter, each institution will be evaluated under separate headings.

With regards to the WFD requirements, several institutional arrangements of water management policy come forward. Five institutions are defined in this context. For sound implementation of the WFD, these institutions should be adapted accordingly. These include institutional arrangements on pricing (Article 9), transboundary river basin management (Articles 3, 13), monitoring (Article 8), river basin management (Articles 3, 13), and public participation (Article 14). These institutions are derived from the major requirements that WFD stipulate throughout its relevant Articles. Realization of adaptations in these institutional arrangements comprises the core of the tasks that Turkey would be obliged to undertake. While changes in legal framework and contingent policy networks constitute the procedural aspects of the Directive, the changes in water management institutional arrangements will form the substantive elements that need to be changed according to the WFD.

The second part of the chapter takes the water organizations, i.e. hard institutions in Turkey as its main focus. Main actors of Turkey's water management include the Prime Ministry, Ministry of Environment and Forestry and their Provincial Directorates, the State Hydraulic Works (DSİ in Turkish acronym) and its Regional

⁵⁸⁷ Bo Carlsson and Staffan Jacobsson., "In search of useful public policies: key lessons and issues for policy makers, in Bo Carlsson (ed.), *Technological Systems and Industrial Dynamics*, Kluwer Academic Publishers, Dordrecht, 1997, pp. 299-316.

Directorates, Bank of Provinces (“İller Bankası” in Turkish), Municipalities, the Ministry of Health and their Provincial Directorates, and the Ministry of Agriculture and Rural Affairs, and their Provincial Directorates, and EİEİ. These actors will be discussed in the light of their establishment laws, and other relevant laws.

5.2. Major (Soft) Institutional Arrangements

5.2.1. River Basin Management

One of the bases that WFD rests upon is the “river basin” concept. Article 2.13 of WFD defines River Basin as the area of land from which all surface run-off flows through a sequence of streams, rivers and, possibly, lakes into the sea at a single river mouth, estuary or delta. “River Basin Districts” are the major units that WFD requirements will be put into effect. According to WFD Article 2.15., River Basin District is “the area of land and sea, made up of one or more neighboring river basins together with their associated groundwaters and coastal waters, which is identified under Article 3(1) as the main unit for management of river basins.” Necessary measures to bring water bodies to a “good status” -at least- will first be drafted and then become operationalized in forms of “River Basin Management Plans”. In short, WFD regards the hydrological units, i.e. river basins, as its main points of reference. This suggests that politico-administrative boundaries should -by some means- be transcended providing that a river basin management approach is adopted. Adopting a river basin management approach would also necessitate creating concomitant organizational setup, which would have to -at least- coordinate the WFD implementation on the river basin district level. Although it is up to Member States to decide on their own ways of creating institutional arrangements, there is the requirement of designation of “competent authority/authorities”. This implies that WFD sets the lowest level of river basin management as giving mandate to a competent authority to implement WFD rules on the river basin district level.

Comparing this approach of WFD with the actual institutionalized practices in Turkey, one finds a rather complicated picture. Although the water management

policy could not be conceptualized as a true and complete realization of “river basin management” approach, there is still evidence supporting the fact that Turkey has long been practicing some elements that the “river basin management” approach connotes. Before discussing the specific case of Turkey with regard to river basin management concept, it is beneficial to present a brief remark on the concept itself.

“River basin management” is, to a great extent, about “integrity”. This explains the trend through which the term “integrated river basin management” has become a buzzword in the recent two decades or so. Taking the river basin as the main unit where policy decisions are made for and implementation takes place in, river basin management requires relevant institutional and organizational setting where all stakeholders have a say in the policy-making process which should be valid for all water bodies, and for all aspects of water (quantity, quality, different uses etc.). In other words, river basin management approach involves “the management of all surface and subsurface water resources of the river basin in its entirety with due attention to water quality, water quantity and environmental integrity.”⁵⁸⁸ One of the significant tenets of the river basin management approach is adoption of a “participatory approach focusing on the integration of natural limitations with all social, economic and environmental interests”. Thus, river basin management, in its ideal form, requires an integrated approach to all water bodies, to all water uses, to all aspects related to water and to all stakeholders involved on the basis of a river basin.

It is stated that there is no single authority or organization in Turkey which is entrusted with the mandate of water management to full extent.⁵⁸⁹ Indeed, the organizational structure responsible from water management tasks represents a complex and dynamic web of actors and interrelations among them. Although this

⁵⁸⁸ Frank Jaspers, “Capacity Building for Integrated River Basin Management”, First Draft, unpublished paper, on file with the author, date not available, p. 3.

⁵⁸⁹ Mustafa Öztürk, “Havza Esaslı Entegre Su Yönetimi”, unpublished paper, Ankara, 2009, available online at <http://www.mozturk.net/?Type=1&Id=387>, accessed on 20.04.2011, p. 12.

web of interactions involves a certain degree of a cooperative framework, the “fragmentation” usually overshadows the cooperation, resulting in adoption of sub-optimal water management practices⁵⁹⁰. In addition to the lack of a single organization responsible from all water management policy in Turkey, it is unlikely to perceive water management in Turkey as organized along the lines of “river basin management” in true sense. Despite these, some basic assumptions of river basin management have already become operational in Turkey. Therefore, it could be stated that notwithstanding the inadequacies, the organizational arrangements in Turkey has developed a potential for realization of a river basin management framework. This mixed structure of Turkey’s water management organizational map necessitates some further analysis in order to grasp the continuities as well as prospects for change.

The organizational setup necessary for realization of a river basin management approach in Turkey only exists at the central level. This structure, however, which comprised relevant state authorities and their provincial or regional directorates, mainly deals with provision of additional water supply.⁵⁹¹ Therefore, the river basin management paradigm has been operational zed at the central level with respect to water quantity planning. The most prominent actor in this structure is the DSİ. Also, EİEİ, and GDRS (until its closure in 2005) are other significant actors.

Recognizing the water resource as “a whole”, DSİ and GDRS had mostly worked in cooperation, until the closure of GDRS, 2005. Yet, sometimes the cooperation between DSİ and GDRS suffered limitations resulting in sub-optimal results from particular irrigation projects. GDRS was responsible from managing surface waters

⁵⁹⁰ Particularly the overfragmentation of authority with respect to water quality management renders the coordination necessary for preventing the pollution induced by industries, households and agriculture, and causes the continuation of the risk of degradation of quality of water resources in Turkey. See *ibid.*, p. 13.

⁵⁹¹ Selmin Burak, İsmail Duranyıldız and Ülkü Yetiş, *Ulusal Çevre Eylem Planı: Su Kaynaklarının Yönetimi*, A Report Prepared for State Planning Organization, August 1997, Ankara, p. 52.

with a volume of 500 liters per second or less. This criterion stands odd with the river basin management approach which requires an integrated conception of water in accordance with the hydrological boundaries of river basins. Apart from DSİ-GDRS relation, a considerable level of cooperation between the DSİ and EİEİ has also been realized via protocols.⁵⁹² With regards to the drinking water sector, Bank of Provinces and Municipalities are other important players, along with the DSİ.

DSİ has long been working on the water resources planning on the basis of river basins. The river basin planning approach was explicitly referred to DSİ documents. For instance, the “Instruction for Determination of Project Fundamentals” document of 1958 mentions the “project” as being the whole of measures aiming the development of water and related soil resources covering a river basin entirely.⁵⁹³ It has been acknowledged that the “engineering perspective” necessitates such an approach. Because, an optimal utilization of water resources goes hand in hand with selections of most appropriate locations for water works, which eventually requires exploration of the river basin as a whole.⁵⁹⁴

Even before the DSİ’s establishment, water resources in several river basins are explored with the same logic. Provision of good quality of water in sufficient amounts was one of major goals of Republic of Turkey. The basic means to realize this goal was to construct necessary physical structures enabling water storage throughout the year, because of the fact that the precipitation regime in most of Turkey precludes sustained water supply with natural river flows. In short, the planning of water resources with an aim of supplying and storing additional water has been conducted with an underlying assumption of the entirety of the water resources within a river basin.

⁵⁹² Doğan Altınbilek, former DSİ Director General, personal interview, Ankara, May 2011.

⁵⁹³ Özden Bilen, *op. cit.*, “Türkiye’nin Su...”, p. 294.

⁵⁹⁴ Özden Bilen, former DSİ Director General, personal interview, Ankara, December 2009.

This central level structure could be regarded as an asset for development of river basin management approach, because, neither provinces nor any other local authority do not have power to challenge any initiative aiming towards management of water resources on the basis of river basin. In other words, Turkey differs from some countries which have decentralized administrative setups, which could sometimes result in competitive settings where downstream or upstream interests clash. Despite the aforementioned advantage of the established central level structure on the water quantity management, relatively in conformity with the river basin management approach, there are several points which needs to be discussed to get a more complete and accurate picture.

Firstly, despite the working logic of DSİ on the basis of river basins, organizational setup of DSİ does not perfectly fit to the river basin management approach. This has two distinct meanings: first, the mandate of DSİ does not cover some policy areas which are indispensable of river basin management approach (e.g. sanctioning polluters, lack of public participation in decisions); second, the administrative boundaries of the Directorates General of DSİ do not correspond with those of river basin boundaries. As it will be discussed in detail, the main motives behind the delineation of DSİ DGs borders are twofold; political preferences of Governments and historical trajectory development of water related projects.

Secondly, it is also argued by some experts that administrative setup of some significant players does not comply with the underlying assumption of the river basin management, namely integrity of water resources on the basis of river basin. For instance, the organizational structure of MoEF, i.e. its organization on the basis of Provincial Directorates, which operates in accordance with the provincial borders, is not regarded as compatible with the nature of water problems (as well as other environmental problems) which often goes beyond provincial boundaries.⁵⁹⁵ In this line, one may argue that organization of MoEF on the provincial basis runs contrary

⁵⁹⁵ Selmin Burak, İsmail Duranyıldız and Ülkü Yetiş, *op. cit.*, p. 59.

to the river basin management approach, according to which river basin is taken as the main unit of implementation. Also, this administrative set up appears to be disharmonious with the DG system of DSİ, an attached organization to the MoEF. Due to the necessity for coordination among a number of dispersed provincial centers; most of the water management tasks, which need to be handled at the river basin level, such as integrated struggle with pollution, could not be effectively dealt with an organizational structure based on provincial borders. Therefore, the implementation of WFD requirements concerning the issue of monitoring may result in a re-evaluation of the mandates of Provincial Directorates of MoEF in the medium to long term.

With regards to water quality management, which is an indispensable part of the river basin management approach, a framework for coordinated action is only emerging recently. First the establishment of Ministry of Environment in 1991 (Ministry of Environment and Forestry from 2003 onwards), then attachment of DSİ to this Ministry in 2007 appears to be milestones for development of an integrated approach in this respect. However, despite these developments, currently the monitoring activities are handled by a number of organizations without considerable coordination towards creating a coherent, systematic, non-duplicative database. This, in turn, appears to be a precluding factor for realization of river basin management which requires a reliable set of data, at the first instance. Besides, the lack of capacity in provincial units of MoEF, which have substantial roles in controlling the industry induced water pollution, has long been acknowledged.⁵⁹⁶ The water quality management is related with the institution of “monitoring” which will be discussed separately in more detail. A similar lack of capacity is existent in some municipalities, as well. With their polluting impacts extending beyond their municipal borders, those municipalities lacking the financial and technological capacities to treat wastewaters are of serious concern, running the risk of destroying the “integrated” efforts of other authorities to fight with the pollution on the basin

⁵⁹⁶ Mustafa Öztürk, *op. cit.*, p. 12.

level. Overall, it could be concluded that the integration of water quality management issues into a coherent whole of “river basin management” is far from being satisfactory. Yet, one could also mention the emerging efforts, namely a twinning project⁵⁹⁷ with its sub-components, aiming to create an organizational structure capable of conducting monitoring activities as required by the WFD; and national action plans⁵⁹⁸ targeting the treatment of all waters.

River basin management requires stakeholder involvement or participation.⁵⁹⁹ One of the obstacles for realizing “river basin management” approach lies the fact that water users have little or no responsibility with regards to management of water in Turkey.⁶⁰⁰ Participation to decisions is majorly confined to EIA procedures. Apart from this, the quality of EIA practices in Turkey with respect to participation is questioned, as well. Involvement in implementation processes, on the other hand, is not backed by notable incentives. There are exceptions to this, however, particularly with regard to incentives for water saving. An example may be the wastewater charges, which is a part of the water bills that water users in urban areas have to pay. A second exception would be the increasing block tariff structures which some of the municipalities adopt. Through these mechanisms, users are encouraged to use less water.

To sum up, although the current water management policy in Turkey could not be defined by the terms of the river basin management approach, there are still notable elements which Turkey have realized with a view taking “river basin” as a unit for water management. It is the quantity management side of the water management

⁵⁹⁷ Twinning Project (TR06-IB-EN-01) “Capacity Building Support to the water Sector in Turkey”.

⁵⁹⁸ Republic of Turkey, *op. cit.*, “Draft National...”.

⁵⁹⁹ Frank Jaspers, *op. cit.*, “Capacity Building...”, p. 4.

⁶⁰⁰ Selmin Burak, İsmail Duranyıldız and Ülkü Yetiş, *op. cit.*, p. 52.

policy where Turkey has developed a tradition of evaluating river basins or sub basins (e.g. Upper Euphrates River Basin).

5.2.2. Pricing

Water pricing is regarded as an important aspect of water management.⁶⁰¹ As Ünver and Gupta pointed out, water pricing may serve several purposes including financial (to cover capital investment and operation and maintenance (O&M) costs of water services), efficiency (to inculcate upon the users the consciousness of intrinsic value of resources and delivery systems and to discourage water wastage, strengthen institutional capacities and improve quality of services, and equity (to reduce income distribution gaps and thereby achieve social justice).⁶⁰²

As to the WFD, water pricing appears to be one of the significant elements of the Directive. For the WFD, the price of the water should cover all the costs associated with the water services. Article 9 of the WFD obliges Member States to take into account the principle of full cost recovery for water services based on the “polluter pays” principle⁶⁰³. The Member States are obliged to implement pricing policies associated with an adequate level of cost recovery for water services by 2010.⁶⁰⁴ Water pricing policies as suggested by the WFD must reflect the following costs: a) Financial costs: direct costs embracing the costs of supply and administration, operation and maintenance, and also capital costs; b) Environmental costs: cost of the waste caused by water use on the ecosystem, for example; salination or degradation of productive soils, and c) Resource costs: cost of resource depletion leading to the disappearance of certain options for other users.

⁶⁰¹ See Ingo Heinz, *op. cit.*, “The Economic Value...”, p. 1.

⁶⁰² Olcay Ünver and Rajiv K. Gupta, Water Pricing: Issues and options in Turkey, in *Options Méditerranéennes*, Série A No. 49, 2003, p. 125.

⁶⁰³ The Polluter Pays Principle is part of international environmental law where the polluting party pays for the damage done to the natural environment. It is regarded as a regional custom because of the strong support it has received in most OECD and European Community countries.

⁶⁰⁴ WFD, Article 9.

Before evaluating the water pricing institution in Turkey vis á vis WFD terms as summarized above, it is useful first to provide the basics of the prevailing water pricing practices in Turkey. This background would contribute to delineate the gaps between the framework as drawn by the WFD and Turkish case.

5.2.2.a. Pricing in Agricultural Sector

One of the main characteristics of water pricing in agriculture in Turkey is that water does not have a price *per se* (for its own). This means that water tariffs associates only with operation and maintenance costs⁶⁰⁵ of the irrigation system being used. Article 26 of Act No. 6200, namely DSI Law states that “[A]ll expenditures done to operate the schemes are paid by the beneficiaries themselves (except the flood protection facilities, reclamation facilities and the facilities which make navigation convenient)”. Therefore, the DSI does not sell the water to users with a price determined by full-cost calculations, but recovers only the costs of water transmission from the source to the field. That's why the main terminology used is “operation and maintenance charges” instead of “*price of water*” or water pricing”.⁶⁰⁶ O&M water tariffs are prepared in accordance with the Article 28 of Act No. 6200. In this Article it is stated that O&M charge “is obtained by dividing the total expenditure of the last year by irrigated area”.⁶⁰⁷ O&M charges per decar are established to recover cost according to the crop types in estimated irrigable areas in an irrigation season to groups which are included in the irrigation.⁶⁰⁸

⁶⁰⁵ “Operation Costs include personnel (the total wages paid for permanent and temporary personel working at operational services in a fiscal year), vehicles (the total cost of vehicles used for operation activities), and energy-oil expenditures (consumed in pumping units which are constructed and used for irrigation and drainage) that are made mostly in an irrigation season. Other expenditures include the expenditures for operating the scheme such as telephone, electricity, water, heating, rent. Maintenance Costs are the annual or periodical expenditures made for sustaining expected services from the schemes before any problem arises, repairing the damages and performing weed-control” (Olçay Ünver and Rajiv K. Gupta, *op. cit.*, p. 131.)

⁶⁰⁶ *Ibid.*, p. 130.

⁶⁰⁷ Article 28.c.

⁶⁰⁸ Olçay Ünver and Rajiv K. Gupta, *op. cit.*, p. 133.

The investment cost of the irrigation systems, which comprise one part of the financial costs, are however, not paid back at real costs. For most of the cases, long-term no-interest schemes for repayments are utilized for investment costs. For instance, concerning groundwater irrigations (“YAS” in Turkish acronym), investment costs are repaid in 15 year timeframe, with no payments in first three years of which and with no interest. Therefore, while financial costs of the water are partially covered⁶⁰⁹, resource costs and environmental costs are not taken into account.

While the scheme presented above is valid for public irrigation systems, the picture for the private irrigation systems is a different one. If there is no public investment in a given irrigation scheme, then there is no cost associated with that irrigation system whatsoever. In this regard, the irrigation systems which are created by people themselves, also known as “private irrigations” (“halk sulaması” in Turkish), are actually exempted from water pricing phenomenon.⁶¹⁰

All in all, water prices (fees) in agricultural sector have traditionally been low in Turkey. Within this context, the operation and maintenance costs are hardly covered: A study conducted by DSİ that, in order to cover the operation and maintenance costs fully, the water fees need to be increased six times at least.⁶¹¹ The reasons for this, namely the low level of water charges, are twofold: one reason is related with an intentional decision, while the second reason is related with the political difficulty associated with the pricing in agricultural sector.

⁶⁰⁹ Ercüment İmnet, Branch Manager, Groundwaters and Geotechnic Branch, DG XI, DSİ, Edirne, personal interview, Edirne, October 2010). For a review on the issue, also see Republic of Turkey, Ministry of Energy and Natural Resources, General Directorate of State Hydraulic Works (DSİ), *The Status of Water Resources Development in Turkey*, A Country Report Specially Designed for International Year of Freshwater, 2003, Ankara, p. 20.

⁶¹⁰ İsmail Ülkü, Branch Manager of Operation and Maintenance, DG XI., DSİ, Edirne, personal interview, Edirne, October 2010.

⁶¹¹ Olcay Ünver and Rajiv K. Gupta, *op. cit.*, p. 141.

While the first modern irrigation system is constructed in Konya plain in 1908, systematic construction of physical works for irrigation started only in late 1930s. The first full-size irrigation network was completed only in 1943, in Nazilli plain. Then, in 1940s and 1950s, it was perceived that the irrigated areas were insufficient in respect to needs and capabilities of the country. Comparing Turkey's irrigation areas with other countries by early 1960s revealed the fact that only 0.8% of irrigated areas of the world were in Turkey, while 1.4% was in Italy, 2.2% in Iraq, 2.3% in Japan, and 7.5% in Pakistan.⁶¹² Within this context, the extension of irrigated areas became one of the priorities of Turkey's water management policies. Therefore, in order to accelerate the extension of the irrigated areas and use of water for irrigation purposes, water prices have been intentionally kept low.⁶¹³ It has been argued that for most of the cases, the collected water fees could not meet the operational costs of the irrigation systems. In this respect, an increase in water prices in project areas has begun to be recommended in as early as 1960s.⁶¹⁴

With regards to the second reason, it is acknowledged that pricing of water is ultimately a political decision.⁶¹⁵ In Turkey, around one third of the population is employed in the sector of agriculture. In this respect, the people living on agriculture form a huge electorate. Disregarding this huge electorate tends to be difficult for politicians. What is more, as it is already known, farmers appear to comprise one of the poorest segments of Turkish society. This fact is a limitation on the discussions on establishing true cost pricing in agricultural sector which would cover the costs of operation and maintenance.⁶¹⁶ Therefore, it will be politically difficult in a setting like Turkey to decide on a pricing system through which full cost-recovery is realized.

⁶¹² Ali Balaban, *op. cit.*, p. 12.

⁶¹³ *Ibid.*, p. 19.

⁶¹⁴ *Ibid.*

⁶¹⁵ Abdullah Demir, *op. cit.*, p. 108.

⁶¹⁶ Özden Bilen, former Director General of DSI, personal interview, Ankara, December 2009.

Around $\frac{3}{4}$ of water in Turkey is utilized in agricultural sector.⁶¹⁷ Thus, agriculture is the sector where most of the water is used. It has been established that water pricing could contribute to the efficient use of water in agriculture.⁶¹⁸ In this respect, if appropriate water pricing schemes are used; significant amounts of water could be saved in Turkey, enabling its use in other sectors.

With regards to water pricing in irrigation systems in Turkey, two methods of pricing is used. First is an “area based” or “crop based” fee, which is applied to most of the surface water irrigations. This is determined either according to the area under irrigation, or according to the crop for which water is used. Second is a “volume based” pricing which is applied to some irrigation cooperatives using pumped irrigation schemes and groundwater irrigation.⁶¹⁹ It has been estimated by some experts that volumetric charges would provide a fairly stable income for the irrigation management organization, as the overall volume of water available would be known and would have to be determined by the bulk water supplier well in advance.⁶²⁰ Concerning the water saving, volumetric pricing is known to be a scheme which minimizes excessive water use.

In Turkey, the mostly used water pricing method for irrigation is the former. In this case, as the payment is based upon the area or upon the crop, the farmer is free to use as much as water he desires. It has been reported that farmers are reluctant to regulate water use in irrigations during nighttime.⁶²¹ As demonstrated earlier, the

⁶¹⁷ Sabri Şener, Murat Yıldırım and Kürşad Demirel, “Küresel Isınma ve Tarımda Suyun Etkili Kullanımı”, paper presented at *III. Ulusal Su Mühendisliği Sempozyumu*, 10-14 September 2007, Gümüş, İzmir, p. 649.

⁶¹⁸ *Ibid.*, p. 650.

⁶¹⁹ *Ibid.*

⁶²⁰ Olcay Ünver and Rajiv K. Gupta, *op. cit.*, p. 144.

⁶²¹ Ahmet Özçelik, Harun Tanrıvermiş, Erdemir Gündoğmuş and Ahmet Turam, “Türkiye’de Sulama İşletmeciliğinin Geliştirilmesi Yönünden Şebekelerin Birlik ve Kooperatiflere Devri ile Su Fiyatlandırma Yöntemlerinin İyileştirilmesi Olanakları”, *Ankara Üniversitesi Yayını*, Ankara, 2009, p. 16.

efficiency of water use is considerably low in this type of pricing schemes.⁶²² It has been observed that linking water charges to crop and area methods leads to farmers using poor returns as an excuse not to pay, and demanding the right to pay after harvest rather than at the time services are undertaken.⁶²³ The crop and area system establishes no water right, and encourages free loading (rent seeking) behavior. Irrigators compete to establish as large an area as they think can be irrigated. The crop and area system has no incentives for water use efficiency, as the amount paid by irrigators is not related to the water delivered. Whilst peak season efficiency is encouraged by overall restrictions in supply, irrigators are free to waste water when there is spare conveyance capacity, and this is shown to be happening in practice.⁶²⁴

Therefore, for greater efficiency, extension of volume based water pricing methods is being recommended.⁶²⁵ A corollary of this will be a phasing out of the water pricing method based on a “constant fee”. With regards to volume based pricing, the measurement of the volume of water used is required. In this framework, the Decision prepared by DSİ, called “The Decision on Operation and Maintenance Tariffs concerning the Irrigation and Drying Facilities” reads “[I]n irrigation systems where measurement of water on cubic meter (m³) base is possible, the fee for operation and maintenance costs shall be applied in accordance with the water fee per cubic meter (m³), which will be indicated in the water tariff.”⁶²⁶ Nonetheless, this method of water pricing covers only very small percentage of the areas under irrigation.⁶²⁷ This is mainly because of the fact that measuring devices are not used

⁶²² Cited from Sabri Şener, “Menemen Ovası Sulama Problemleri”, *Topraksu Genel Müdürlüğü Bölge Topraksu Araştırma Enstitüsü Yayını*, No. 41/5, Menemen, İzmir, 1974, in Sabri Şener et al., *op. cit.*, p. 650.

⁶²³ Olcay Ünver and Rajiv K. Gupta, *op. cit.*

⁶²⁴ *Ibid.*

⁶²⁵ Hasan Değirmenci, “Sulama Yönetimi ve Sorunları”, *TMMOB II. Su Politikaları Kongresi*, Ankara, 2008, p. 200. Also see Sabri Şener et al., *op. cit.*, p. 653.

⁶²⁶ The Decision on “Devlet Su İşleri Genel Müdürlüğü’nün 2011 Yılı Sulama ve Kurutma Tesisleri İşletme ve Bakım Ücret Tarifelerine İlişkin Karar”, 9.4.2011, Official Gazette No. 27900, Article 3.c.

⁶²⁷ Sabri Şener et al., *op. cit.*, p. 650.

for most of the irrigation schemes, particularly with regards to surface irrigations. In this case, only “approximate volume” of water used could be projected taking into consideration of the time needed for irrigation or of the size of the plug used.⁶²⁸

Currently, most of the irrigation systems formerly operated by DSİ are transferred to users. In this framework, prices are now –to great extent- determined by irrigation cooperatives and unions. While prices had been determined solely by the DSİ before the transfer of irrigation systems, DSİ is now in a position only controlling and approving the prices set by the water user associations and making adjustments where necessary.⁶²⁹

The prices are updated annually, mainly according to the changes in energy prices. Energy price is also one of the major determinants of the variance of pricing across different irrigation schemes in a given year.⁶³⁰ For instance, in DG XI of DSİ (Edirne), prices range from 25 to 125 TL per decar, depending on the different costs of energy used to pump water.⁶³¹ Although the studies on the performances’ of water user associations concluded that transfers of irrigation networks to users yielded positive results in general with respect to financing of the irrigation network, operation and maintenance issues, as well as agricultural and economic efficiencies⁶³²; there are enduring problems associated with water pricing applications which result in excessive use of water for irrigation.⁶³³ For instance, in

⁶²⁸ *Ibid.*

⁶²⁹ İsmail Ülkü, Branch Manager of Operation and Maintenance, DG XI, DSİ, Edirne, personal interview, Edirne, October 2010. Ülkü reports that in Edirne DG (DG XI.) the prices determined by users are adjusted by DSİ just for two times in nearly two decades.

⁶³⁰ İsmail Ülkü, Branch Manager of Operation and Maintenance, DG XI, DSİ, Edirne, personal interview, Edirne, October 2010.

⁶³¹ İsmail Ülkü, Branch Manager of Operation and Maintenance, DG XI, DSİ, Edirne, personal interview, Edirne, October 2010.

⁶³² Cited from Abdürrahim Korukçu and Ali Osman Demir, “Sulama Yönetimi Devirlerinin Etkileri: Mevcut Uygulamaların İncelenmesi”, *I. Ulusal Sulama Kongresi*, 8-11 Kasım, Antalya, 2001, in Hasan Değirmenci, *op. cit.*, p. 200.

⁶³³ For studies concerning excessive water use in irrigation networks in water user associations, see Mevlüt Beyribey, “Devlet Sulama Şebekelerinde Sistem Performansının Değerlendirilmesi”, *A.Ü. Ziraat Fakültesi*, Yayın No. 1480, Bilimsel Araştırmalar ve İncelemeler: 813, Ankara, 1997; and

practice, the Chairman and Board members the irrigation unions of, who are usually large landowners sometimes favor themselves, and other individuals, with exemptions from paying water charges or extra water supplies, and tend to reduce water charges to below sustainable levels. Also, the legal status of the transfer agreement is questionable, because of the fact that their provisions, particularly with regards to the obligations of the assignor namely DSİ, are generally not drafted in detail.⁶³⁴ Concomitantly, these transfers could not be regarded as transition to a participatory model. Rather, transfers are criticized to be merely “an internal transfer of responsibility for irrigation system O&M from one department of the state (DSİ) to another (the ID, a newly created local government administration)”.⁶³⁵ Another cited problem with respect to transfer agreements is that they do not specify the principles or time frame of the recovery of the costs concerned. Given this character of transfer agreements, namely lack of clarity in terms of rights and obligations of the assignor and the assignee, user associations does not adopt a vision for long-term investment on the irrigation systems.⁶³⁶ This, in turn, results in the increase damage to the irrigation systems, which cause water losses.

In short, water pricing practices prevailing in Turkey, including the used terminology, does not comply with the objectives that WFD stipulates, particularly the “full-cost-recovery” principle. While financial costs are partly covered, environmental and resource costs are utterly ignored in determination of water fees. Therefore the “full-cost recovery” principle has not been realized in Turkey. When Turkey’s practices of water pricing in irrigation sector are compared with the WFD proposed framework, the need for a general reassessment which would possibly transform water pricing into one that complies with the full-cost recovery becomes

Cengiz Koç, “Büyük Menderes Havzası Sulama Şebekeleri İşletme-Bakım ve Yönetiminde Sulama Birliklerinin Performansı”, *I. Ulusal Sulama Kongresi*, 8-11 November 2001, Antalya,. Cited in *ibid*.

⁶³⁴ Olcay Ünver and Rajiv K. Gupta, *op. cit.*, p .136.

⁶³⁵ *Ibid.*, p. 137.

⁶³⁶ *Ibid.*

apparent. Within this context, on the road towards alignment with WFD rules, one may expect significant increases in water fees in Turkey. However, this is not an easy step given the established tradition of low fees, which were seen as an acquired asset or right by many farmers. Breaking this “path dependence” would likely entail political risks for the political administrations. On the other hand, the problem of “ability to pay” is an additional dimension. Therefore, even if the fees are increased, farmers could be unable to pay those fees, particularly those farmers cultivating low value crops and using more expensive pumped irrigation systems.⁶³⁷

Eventually, the insistence on water fee increases could result in shrinkage in irrigated areas in Turkey, as predicted in a study with respect to WFD impact on irrigation sector in Spain. This would be an undesired result from the perspective of official Turkish view. Because Turkey seeks to expand irrigated areas to 8.5 million hectares, from the current level of approximately 5.42 million hectares.⁶³⁸ Thus, there appears a dilemma for Turkey choosing between implementation of WFD rules in irrigation pricing and extension of irrigated areas. If both implementation of full-cost-recovery principle of the WFD and expansion of irrigated areas is to be realized simultaneously, then the efficiency in irrigation systems needs to be significantly improved. Increasing efficiency in irrigation systems may need substantial investments in order to transform open irrigation systems into closed systems. This could be facilitated through utilization of low or zero interest financing schemes. Also, educational activities should be going hand in hand with the necessary changes in structural aspects. On the other hand, a significant decrease in irrigated areas, which could cause some “social risks”,⁶³⁹ may even necessitate social back-up policies, as envisaged by the European Commission.⁶⁴⁰ From the positive side,

⁶³⁷ *Ibid.*, pp. 143-144.

⁶³⁸ See <http://www.dsi.gov.tr/hizmet-alanlari/tarim>, accessed on 08.06.2011.

⁶³⁹ According to the European Commission, these are the risks associated with social order, which could emerge as results of water pricing policies in less developed Member States.

⁶⁴⁰ European Commission, Communication from the Commission to the Council, European Parliament and Economic and Social Committee: Pricing and sustainable management of water resources [COM(2000) 477, available online at <http://eur-220>

however, the prospect of water fee increases has the potential for more efficient water use in agricultural sector. This, in turn, would enable re-allocation of the saved irrigation water into more lucrative sectors, such as services and industry.

On the other hand, getting into compliance with WFD terms concerning the issue of water pricing bring initial difficulties for Turkey, which need to be resolved at the soonest possibility, so that real changes in implementation could be initiated. That is to say, in order to determine the real costs of water, considerable efforts should be made with a view to calculate the resource and environmental costs. As interim evaluations in Turkey demonstrated, there is serious lack of data in this respect.⁶⁴¹

A final point on the issue of water pricing that needs to be noted is that the agricultural acts of grace (e.g. deletion of farmers' water fee or electricity related debts etc.) in Turkey stand contrary to the cost-recovery principle of the WFD. Therefore, in the medium to long term the application of cost-recovery principle of the WFD could result in termination of the repeated practice of deleting water related debts of farmers.⁶⁴²

5.2.2.b. Pricing at Municipal Level

Water tariffs for domestic, industrial and other uses are set by the individual municipalities. The "municipal assemblies" are responsible organs for deciding on the water tariffs. Most of the water administrations within municipalities' structures do not have budgets specific to water services. The main reason for this, according to some experts, lie in the financial or institutional lack of capacities within municipalities.⁶⁴³ Operation and management, amortization, rehabilitation and

lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52000DC0477:EN:HTML, accessed on 20 October 2010.

⁶⁴¹ Republic of Turkey, *op. cit.*, "Draft National....".

⁶⁴² Nedim Yeşil, DSİ, Investigation and Planning Department, European Union Relations Section, personal interview, Ankara, December 2010.

⁶⁴³ See Selmin Burak, İsmail Duranyıldız and Ülkü Yetiş, *op. cit.*

expanding costs are generally taken into account in setting of the drinking water and waste water tariffs. However, the environmental and resource costs generated are not considered in real terms. This fact appears to be one of the major gaps between the WFD proposed pricing schemes and municipal practice of water pricing in Turkey. On the positive side, many municipalities charge waste water in order to support the costs of treatment. This practice appears to be in line with the principle of polluter-pays. Charging waste water could also be seen as an approach which takes into account of the environmental cost.

Beside the problems associated with the formation of the price of water, the problem of collecting the declared fee is a serious concern. That is to say, the administrative capacities of many municipalities lack the necessary personnel and tools enabling the collection of the charges in full. One of the reasons behind this lies in the fact that many smaller municipalities are not able to generate sufficient amounts of funding for effective water charge collection systems. One additional problem is related with the losses in the water infrastructure. These factors exacerbate the already existing problems related with the cost-recovery problems at municipal level.

In some countries, with a view to protect water resources for sustainable use, water users who are using more water than their needs do pay higher water prices. However, this practice is very uncommon in Turkey.⁶⁴⁴ Nevertheless, some municipalities -particularly metropolitan municipalities- via applying increasing block tariff structures, seek to provide incentives for water saving.⁶⁴⁵

The pricing practices in municipal level in Turkey fell short of realizing the full-cost-recovery principle as demanded by the WFD. While in many municipalities the water prices are not sufficient to recover financial costs of water services, the practice of recovery of environmental and resource costs are nearly nonexistent. Therefore, application of full-cost-recovery principle of the WFD would necessitate increases in municipal water tariffs in varying degrees. For the determination of water price

⁶⁴⁴ *Ibid.*, p. 19.

⁶⁴⁵ Republic of Turkey, *op. cit.*, "Turkey Water Report...".

increases, first, inventory works need to be done which would calculate the generated environmental and resource costs. Also, in order to efficiently collect the designated fees, the administrative capacities of the municipalities should be developed. Minimizing the costs could support the recovery ratio. Therefore, reducing the water losses in the networks could be thought of. Realizing all these efforts would entail some additional costs, which would ultimately put extra pressure on water tariffs. On the other hand, the users at the municipal level are relatively better off than, for instance, farmers, in terms of “ability to pay”.

5.2.3. Transboundary Relations

Transboundary aspects of water management policy appear to be one of the major points of discussion of Turkey’s position with respect to WFD requirements. WFD calls for transboundary cooperation with a view to establish River Basin Management Plans in river basins extending the boundaries of single Member State. Therefore, RBMPs are to be established not only for river basins which entirely fall within one Member State’s territory, but also –at best- for basins shared by more than one Member State. For river basins extending out of the Community borders (e.g. Euphrates-Tigris), Member States have an obligation to “endeavor” to establish RBMPs for whole of the basin in cooperation with non-Member States. Apart from these, WFD requires Member States to become aligned with all the international conventions that the EU has been a party to. This requirement, for Turkish case, is associated with three Conventions, in particular The Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention), The Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) and The Convention on Protection and Use of Transboundary Waters and International Lakes (Helsinki Convention). Before evaluating specifically the WFD requirements, it is useful to present an overview of Turkey’s position vis á vis transboundary water issues.

To begin with, Turkey's position with respect to transboundary water issues features a double-sided picture. On the one hand, Turkey's attitude towards transboundary cooperation is usually perceived as "reluctant", due to a number of instances in the past.⁶⁴⁶ On the other hand, Turkey's official discourse, as well as its developing practices in terms of becoming signatories to numerous bilateral and some multilateral agreements, represent the other side of the picture⁶⁴⁷.

A number of principles that define Turkey's official discourse regarding the use of transboundary rivers was declared in a nutshell by Turkish Ministry of Foreign Affairs (MFA) in 2003. These are: a) Water is a basic human need, b) Each riparian state in a transboundary river has the sovereign right to make use of the water in its territory, c) Riparian states must make sure that their utilization of such waters does not give "significant harm" to others, d) Transboundary rivers should be used in an equitable, reasonable and optimum manner, e) Equitable use does not mean the equal distribution of waters of transboundary rivers among riparian states.⁶⁴⁸

Before analyzing the discourse that Turkey upholds, it should be noted that Turkey distinguishes between the terms "international" and "transboundary" rivers. According to Turkish view, "international rivers" are those constituting a border between two or more countries. For instance, Maritsa River which forms the border between Turkey and Greece, and the Arpaçay River (Araks basin) where it forms the border between Turkey and Armenia are regarded as international rivers. Euphrates and Tigris rivers, on the other hand, appear to be "transboundary" rivers.

⁶⁴⁶ Disputes over the Euphrates and Tigris rivers between Turkey, Iraq and Syria; Turkey's vote against the United Nations Convention on the Law of the Non-navigational Uses of International Watercourses (1997) (UN Water Convention) as well as Turkey's refusal to discuss transboundary water issues within the context of the 2002 OSCE Economic Forum.

⁶⁴⁷ Ramsar Convention on Wetlands, the Convention for the Protection of the Mediterranean Sea against Pollution.

⁶⁴⁸ Ayşegül Kibaroğlu et al., *op. cit.*, "Cooperation...", p. 20.

In line with the above principles which were laid down by MFA, it can be inferred that Turkey does not officially recognize the right of downstream countries to have co-sovereignty on waters of upstream countries and vice versa. Co-sovereignty doctrine, in official Turkish view, runs the risk of asymmetrically empowering the downstream countries' positions. Instead, Turkey acknowledges the limited territorial sovereignty doctrine. According to the Turkish position, the principle of equitable and reasonable utilization should serve as a "guiding rule" for the allocation of transboundary waters and the settlement of conflicts. In addition to this, Turkey has stressed the principle of "good neighborliness" which takes into account of interests of other riparians in dealing with "transboundary" and "international" rivers.

Along with the discourse that Turkey has so far adopted, there are some practices regarding the cooperation on transboundary waters which have evolved beginning from the early years of the Republic. In this framework, Turkey usually refrains from entering into agreements entrenched with "compulsory mechanisms for dispute settlement" and the "procedures for prior notification". This tradition may explain why Turkey has been among the only three countries that had voted against the UN Water Convention, and has not signed the UNECE Water Convention.⁶⁴⁹

However, despite this so-called "reluctance" on international cooperation with overarching procedures and compulsory mechanisms, Turkey has become signatory to a number of bilateral agreements⁶⁵⁰ with its neighbors which primarily concerned "water quantity" or "border issues. Most of these agreements lack robust organizational structures in terms of "monitoring" or "joint dispute settlement mechanisms".⁶⁵¹ Additionally, a number of joint projects with Bulgaria, Georgia, and

⁶⁴⁹ *Ibid.*

⁶⁵⁰ *Ibid.*, pp. 19-79.

⁶⁵¹ *Ibid.*, p. 87.

Syria (construction of joint dams⁶⁵², cooperation on flood protection⁶⁵³, joint activities of training) are underway. The proposed Three-Stage-Plan of Turkey should also be considered as an initiative of cooperation for the water of Euphrates-Tigris Rivers. In brief, it could be maintained that practically Turkey has shown a considerable degree of enthusiasm for cooperation with its neighbors over transboundary waters.

Besides, in recent years, an additional impetus stemming from the intensification of Turkey's relations with the EU with a view of full membership emerged. This set off an atmosphere where transboundary water issues had begun to be re-examined within the framework of EU membership negotiations. The Accession Partnership document, which was adopted by the European Council on 14 April 2003, appears to be a significant document within this context mentioning about the transboundary waters. According to the this document, EU demands from Turkey to cooperate in a framework defined by not only the WFD, but also by conventions that are referred in the WFD, namely The Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention), The Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) and The Convention on Protection and Use of Transboundary Waters and International Lakes (Helsinki Convention). As a document listing the commitments of the country with regards to the requirements set out in the Accession Partnership Document, a National Program was prepared by Turkey. In this document, it is stated that Turkey's adherence to these conventions will be evaluated with Turkey's accession to the European Union. This means that, as evaluated elsewhere by the Ministry of Foreign Affairs⁶⁵⁴, full harmonization with the WFD and becoming party to the aforementioned Conventions (shortly Helsinki,

⁶⁵² Suakacağı (with Bulgaria), Friendship (with Syria). Also, Serdarabad (with Soviet Union) dam was completed.

⁶⁵³ With Bulgaria and Greece.

⁶⁵⁴ <http://www.mfa.gov.tr/avrupa-birligi-ile-su-konusu-tr.mfa>, accessed on 31 January 2011.

Aarhus, and Espoo) will be realized *after* Turkey becomes member to the EU. Nevertheless, with regards to the Directives⁶⁵⁵ in relation with these three Conventions, the Ministry of Foreign Affairs maintains that Turkey could fully harmonize with those Directives related with Conventions two years before Turkey's accession to the EU.

On 29-30 January 2007, a working group meeting was held in Ankara, Turkey, with an aim of discussing the possibility of application of environmental impact assessment directives and Conventions of Espoo and Aarhus to neighbors of Turkey which are EU Members. The participants to this meeting were comprised of experts on legal issues and on other areas of expertise. While the results reached through this meeting are not publicized, as of late January 2011, evaluations by the Ministry of Foreign Affairs were still continuing.⁶⁵⁶

Within the context discussed above, having a membership perspective remains crucial for Turkey.⁶⁵⁷ Without a clearly declared date for accession, Turkey's efforts with respect to adoption of the transboundary parts of the environmental *acquis*, inclusive of water *acquis* will likely remain sluggish, as it was being demonstrated by the period after the date when accession negotiations formally started on 3 March 2005.⁶⁵⁸ The main reason for this lies in the perception in Turkish bureaucratic elite. According to this perception, becoming party to Conventions like Helsinki, Espoo, and Aarhus will result in some costs for Turkey, which could be bearable only in a context where Turkey is granted with a perspective for the EU membership. Additionally, according to this line of argument, it will be unfair for the EU to demand from Turkey without giving it a perspective for membership.⁶⁵⁹ It should be

⁶⁵⁵ These include Environmental Impact Assessment Directive and Directives related with horizontal legislation.

⁶⁵⁶ <http://www.mfa.gov.tr/avrupa-birligi-ile-su-konusu-tr.mfa>, accessed on 31 January 2011.

⁶⁵⁷ Erol Saner, General Directorate for EU Affairs, personal interview, Ankara, March 2008.

⁶⁵⁸ Erol Saner, General Directorate for EU Affairs, personal interview, Ankara, March 2008.

⁶⁵⁹ Erol Saner, General Directorate for EU Affairs, personal interview, Ankara, March 2008.

noted, then, Turkey is not in a position utterly rejecting the adoption of the transboundary aspects of the *acquis*. On the contrary, it has already declared that it is ready to fully harmonize the transboundary aspects of the *acquis*, yet when a clear perspective for Turkey's membership to the EU is realized.

With respect to the implementation of the binding WFD articles on transboundary aspects, two fundamental requirements come forward: a) ensuring that a river basin covering the territory of more than one Member State (for those basins lying entirely within the Community territory) is assigned to an international river basin district⁶⁶⁰; and b) endeavoring to establish appropriate coordination with the relevant non-Member States (for those basins extending beyond the Community borders), with the aim of achieving the objectives of this Directive throughout the river basin district.⁶⁶¹

Given the legal weakness of the wording of the WFD stipulations on transboundary waters which are emphasized in Chapter 4; Turkey would not presumably be challenged by aforementioned requirements. It was contended by Yavuz Çubukçu, legal adviser to MFA and diplomat, that Turkey would not face with any difficulty in implementing the WFD requirements, namely establishing a joint river basin district and operationalizing joint river basin management plans, with its western neighbors; namely Bulgaria and Greece, both of which are EU Member states, provided that Turkey had become an EU Member State.⁶⁶² It can be derived from this statement that the establishment of a similar framework, including a joint RBMP as proposed WFD remains to be rather unlikely, at least for short to medium term, for the transboundary waters of Turkey shared with its eastern neighbors. It should be reminded that the WFD does not put much pressure on Member States concerning the creation of a joint RBMP for those river basins extending beyond the Community borders.

⁶⁶⁰ Article 3.3.

⁶⁶¹ Article 3.5.

⁶⁶² Yavuz Çubukçu, International Law Expert in Ministry of Foreign Affairs, personal interview, Brussels, January 2008.

Apart from the WFD, the EU is a party to three agreements, to which Turkey is not a party so far, addressing the use of transboundary waters and regulating issues related to the environmental effects that the construction of facilities have on these waters. The three agreements that need to be discussed in this framework are “The Convention on the Protection and Use of Transboundary Watercourses and International Lakes”, “The Convention on Environmental Impact Assessment in a Transboundary Context”, and “The Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters”.

5.2.3.a. Helsinki Convention

The UN-ECE⁶⁶³ Convention on Protection and Use of Transboundary Waters and International Lakes, which is also known as “Helsinki Convention”, was done in Helsinki, on 17 March 1992, and came into force in 1996. As of February 2011, 35 countries adhered to the Convention. The Council of the EU ratified the Convention on behalf of the Union in 1995 (through Council Decision 95/308/EC).

The Helsinki Convention has parallel clauses to the ‘UN Convention on the use of Watercourses for Non-navigational Use, to which Turkey is not a party. The main point where the Helsinki Convention diverges from the UN Convention is that it does not grant the right to unilaterally bring disputes before the International Court of Justice for the settlement of issues between riparian states.

Several clauses in the Helsinki Convention relate to the prevention and control of water pollution that has transboundary impacts. Within this framework, in order to prevent industrial pollution, it requests that the “best available technology” be applied. Although Appendix I of the Convention provides some flexibility, the suggestion to use costly technology, without taking into account local or regional conditions is also being debated among EU countries. With regards to the Convention, it should also be pointed out that it enables not only the public of the

⁶⁶³ UN’s Economic Commission for Europe.

Party of origin to participate in the environmental impact assessment process, but also grants the same rights and opportunities to the people of the affected Party.

Helsinki Convention had an influence in the drafting process of the WFD, as well. First, as a corollary of the Helsinki Convention, international committees have been established for the protection of the Maas and the Scheldt Rivers. In this background, the European Commission was invited by the Council and the Parliament to develop a more consistent water policy, so that international agreements would be fulfilled. The Water Framework Directive was developed as a response of the Commission to this request.⁶⁶⁴

Officially, Turkey does not want to be bound by Helsinki Convention, which implies a broad range of procedural rules⁶⁶⁵, before membership of Turkey to the EU is realized.⁶⁶⁶ The main reservation for Turkey with regard to Helsinki Convention is apparently associated with the concept of “affected Party”. With respect to Turkey’s western neighbors, namely Greece and Bulgaria; Turkey is a downstream country, thus it would be advantageous. Therefore, the major issue at stake for Turkey is the problem with downstream countries of Euphrates and Tigris, namely Syria and Iraq; where Turkey is an upstream country, and where Turkey’s water resources development practices may have an impact on. However, as Helsinki Convention is binding only for the Parties to the Convention, i.e. for European states; then it will not be directly applicable to relations between Turkey, Syria and Iraq. Within this context, Turkey may reconsider becoming a Party to Helsinki Convention even before its EU membership takes place.

5.2.3.b. *Espoo Convention*

⁶⁶⁴ Marleen van Rijswijk, *op. cit.*, “The Water Framework...”, p. 2.

⁶⁶⁵ Ayşegül Kibaroglu et al., *op. cit.*, “Cooperation...”, p. 88.

⁶⁶⁶ <http://www.mfa.gov.tr/avrupa-birligi-ile-su-konusu-.tr.mfa>, accessed on 05.04.2011.

The UN-ECE Convention on Environmental Impact Assessment in a Transboundary Context came into force in 1997. The EU became a party to the Espoo Convention in 1997.

Appendix I lists construction of large dams and reservoirs, groundwater abstraction activities where the annual volume of water to be abstracted amounts to 10 million m³ or more, and works for the transfer of water between river basins, where the amount of water exceeds 100 million m³ or more, in order to compensate for water shortage, as some of the activities that would have a significant impact on the environment.

In the case of a party wanting to undertake a project, it is the Party of origin's duty to notify any party that, in its estimation, might be affected by the project. The affected Party shall respond within the time specified in the notification, indicating whether it intends to participate in the 'environmental impact assessment' procedure for evaluating the likely impact of a proposed activity on the environment. If the affected Party deems it necessary, the 'environmental impact assessment documentation' should be prepared together with the Party of origin.

Considering Turkey's adherence to the Espoo convention, basically two lines of argument come forward. One of the prevailing views on the Espoo Convention in relation with Turkey's attitude, which is exemplified by Özden Bilen, who is former Director General of the DSI, asserts that becoming party to the Espoo Convention would be risky for Turkey, for its investments particularly in GAP region could be effectively prevented through operating Espoo requirements. For Bilen, general approach of the Espoo Convention is only applicable to conditions prevailing in Europe. Bilen argues "[e]ach transboundary river basin has its own technical, socio-economic and political structure. The Middle East has a complex political, economic and social geography where conflicts occur regularly and new war scenarios are being prepared. In such an atmosphere it is impossible for upstream and downstream countries to prepare the environmental impact assessment documentation together; for example, it doesn't seem possible for Turkey to prepare such documentation

together with Iraq and Syria in order for a dam to be built on the Tigris River.” According to Bilen, even if Turkey does not officially adhere to the Espoo Convention, it is still used against Turkey as an obstruction in front of its investments in Southeastern Anatolia Project.⁶⁶⁷ The second typical view on the issue adopts a more positive outlook. One of the representatives of this view is Dagmar Kaljarikova, Desk Officer for Turkey, in Enlargement and Neighboring Countries Unit of the DG Environment. Kaljarikova maintains “Concerning Espoo Convention, my understanding is the real problem is non-Member states. Under the environmental *acquis*, the obligation is to cooperate with Member States. But, under the Espoo, the obligation is to cooperate with non-EU Member States. Turkey is now developing bilateral agreements under the Espoo framework. We hope, with the experience from these agreements Turkey will join the Espoo.”⁶⁶⁸ In similar vein, Helmut Bloech, Deputy Head of Unit, Protection of Water and Marine Unit in DG Environment argues that Turkey’s reluctance of becoming a party to a “vague” convention like Espoo is not easily understandable, from the perspective of the European Commission.⁶⁶⁹

5.2.3.c. Aarhus Convention

The Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters came into force on 30 October 2001, and was ratified by 39 countries including members of the EU.

The EU has called for all countries in the world to adhere to the Convention and is making efforts to have the clauses of the Convention adopted as principles of established law. Developed countries such as the US and Canada are supporting these efforts.

⁶⁶⁷ Özden Bilen, *op. cit.*, “Türkiye’nin Su...”, p. 241.

⁶⁶⁸ Dagmar Kaljarikova, European Commission, DG Environment, personal interview, Brussels, January 2008.

⁶⁶⁹ Helmut Bloech, European Commission, DG Environment, Water and Marine Unit, personal interview, Brussels, January 2008.

The Aarhus Convention's basic approach can be summarized as enabling public access to information and providing transparency during the process, thereby enabling public participation in decision-making. The convention envisages that citizenship, nationality, and place of residence will not affect the public's access to information or participation in the decision-making processes.

Within this framework, the citizen of any given country, regardless of whether they live in Turkey, would have the right to ask for information about a project to be conducted in Turkey, and the right to take Turkey to court in the case of such a request not being answered or the answer being unsatisfactory. In practice, as some experts maintain, abuse of this right would cause major problems, which could result in project delays.

Dagmar Kaljarikova expresses a cynical view on the subject: “[w]ith regards the Aarhus Convention, I am more skeptical. The huge problem is “access to justice”. Turkey is afraid that any NGO or a party could object any development Project”. Kaljarikova, nonetheless, adds “[b]ut, I think that this is not a huge difficulty. Because there are certain definitions of interested party or an interested stakeholder.” A similar view which posits the risks that Aarhus may bring is exemplified by Özden Bilen. According to him, the biggest risk regarding Aarhus Convention lies in the fact that the rights granted in the framework of the Convention could be abused. This in turn could slow down the projects of water resources development. The second line of argument states that Aarhus Convention is not a threat for Turkey's water resources projects, since Turkey already complies most of the norms that are raised by Aarhus.⁶⁷⁰ This line of argument maintains that, concerning the rules prevailing in Turkish legal regulations on the issues of “access to information”, “public participation” and “access to justice”, there is a great degree of similarity with Aarhus rules. Accordingly, this argument concludes that the reservations raised by Turkey for not adhering to the Convention are seen as far from being satisfactory.

⁶⁷⁰ Ahmet Güneş, “Aarhus Sözleşmesi Üzerine Bir İnceleme”, in *Gazi Üniversitesi Hukuk Fakültesi Dergisi*, Vol. 14, No. 1, 2010, p. 329.

Nevertheless, the fact that some legal changes are necessary for full compliance with Aarhus Convention is acknowledged.⁶⁷¹

As it is demonstrated above, the main arguments concerning both Espoo and Aarhus Conventions are centered on the risks they may bring to the water resources development projects of Turkey. Turkish official view, as declared by the Ministry of Foreign Affairs, is that Turkey would become party to these Conventions after Turkey becomes a Member State of the EU.⁶⁷²

5.2.4. Monitoring

In Turkey, several ministries and government institutions are involved in the activities of protection of water resources and the prevention of water pollution. One important aspect of combating water pollution is the monitoring activities. The ministries and relevant government institutions working on monitoring issues in Turkey could be listed as follows: the Prime Ministry, the Ministry of Environment and Forestry, the Ministry of Energy and Natural Resources, the Ministry of Agriculture, Ministry of Health, the Ministry of Tourism, the Ministry of Industry, the Ministry of Public Works and Settlement, and the Ministry of Transportation, DSİ, and EİEİ⁶⁷³. In addition to these, local administrations (municipalities) are also engaged in monitoring.

Apart from public authorities, there are a number of voluntary foundations, societies and other organizations that actively participate in studies on water pollution and

⁶⁷¹ *Ibid.*

⁶⁷² <http://www.mfa.gov.tr/avrupa-birligi-ile-su-konusu-.tr.mfa>, accessed on 05.04.2011.

⁶⁷³ GDRS was included in the list, however, it was abolished on 28.01.2005 with the Act No. 5286. The responsibilities of the GDRS were transferred to SPAs and to İstanbul and Kocaeli Metropolitan Municipalities, for these two metropol.

monitoring in Turkey. Additionally, scientific institutions such as universities offer education and carry out research on water pollution.

Unlike inland waters, which are regulated basically by domestic legislation, coastal waters and marine environment are usually governed by international agreements, in addition to national legislation. Within this context, Turkey is signatory to a number of international conventions and protocols on water quality, which are mostly concerned with the protection of the Mediterranean Sea. The international agreements, in which Turkey is a party to, on water quality, can be given as follows:

- Agreement on Protection of Mediterranean against pollution (22.08.2002 dated and 24854 numbered official gazette)
- Protocol on Protection of Mediterranean against pollution arisen from the discharges of ships and planes (22.08.2002 dated and 24854 numbered official gazette)
- Protocol on combat and collaboration in case of pollution of Mediterranean with oil and other hazardous substances in extraordinary situations.
- Protocol on combat and collaboration in case of pollution of Mediterranean in extraordinary situations and protection of pollution caused by the ships.
- Protocol on Protection of Mediterranean against terrestrial-based sources Barcelona Agreement Protocol for Special Preservation areas in Mediterranean
- Barcelona Agreement Protocol for Special Preservation areas and biologic diversity in Mediterranean.
- Agreement on participation of Turkey in European Environment Agency and European Information and Monitoring Network.⁶⁷⁴

⁶⁷⁴ Berna Kendirli, Belgin Çakmak and Zeki Gökalp, “Assessment of Water Quality Management in Turkey”, in *Water International*, Vol. 30, No. 4, December 2005, p. 447.

With regards to monitoring practices against the pollution to the marine environment, the Coastal Security (“Sahil Güvenlik” in Turkish), which is a military structure, has the biggest responsibility. However, due to the difficulties associated with the determination of the polluter, efficiency of monitoring and sanctioning in coastal waters remains questionable.⁶⁷⁵

As being one of the major institutions responsible for the water resources, State Hydraulic Works (DSİ), has carried out water quality monitoring activities throughout Turkey since 1979⁶⁷⁶. Started at 65 sampling points, DSİ has currently more than 1000 stations for surface waters and around 3000 wells for groundwater sampling.

As stated above, DSİ has 1163 water quality monitoring sites for surface waters. The Hydrometeorology network of DSİ comprises the following stations; 1117 river flow measurement, 120 lake water level measurement, 115 snow level gauging, 452 meteorological and 1163 water quality measurement. The following data are collected from these stations: hydrological and meteorological variables such as river flows, groundwater and lake water levels, sediment loads, water quality, amount of precipitation, and evaporations.

Data is reported to be collected by DSİ regional staff on a monthly basis, and more frequently for points that are of specific concern. Since the MoEF does not have offices all over the country, and as a consequence, DSİ conducts measurements, and send copies of the results to the MoEF. According to its legal mandate, DSİ does not have any authority to sanction polluters. Hence, if DSİ finds a serious problem of quality then it reports it to the MoEF for action. All in all, DSİ is mostly concerned

⁶⁷⁵ Engin Ural, Secretary General, Environment Foundation of Turkey, (“Türkiye Çevre Vakfı” in Turkish), personal interview, Ankara, December 2009.

⁶⁷⁶ According to the Article 2.h. of the Act No. 6200, DSİ is responsible to conduct observations, experiments, statistical studies, research and all types of exploration in order to realize its objectives listed in Article 2.

with agricultural pollution; it has no responsibility for industrial pollution. DSİ has 22 laboratories throughout Turkey and a greater laboratory in Ankara which can perform all necessary chemical and biological analyses.

DSİ also monitors groundwaters. It has over 1500 observation wells for groundwater monitoring. With regards to the groundwater monitoring, there are two types of monitoring: one for drinking water and the other for irrigation water. For drinking water, the water quality is monitored every month, for irrigation water a sample is taken from the well at the start and the end of the irrigation season.

DSİ is recently trying to develop a nation-wide water quality-monitoring network, in conjunction with Electrical Power Resources Survey and Development Administration (EİEİ). As stated above, State Hydraulic Works started sampling in 1979 at 65 sites and is currently monitoring more than 1000 sites. The measurements are usually done monthly sometimes with gaps and missing values. Two groups of variables are observed: variables that are to be monitored at every site and more specific variables at particular sites, depending on water use and sources of pollution.

By early 1970s EİEİ started water quality sampling. As of today, at around 80 stations, water quality is observed mainly in order to maintain the safety of hydraulic structures. Observations of EİEİ are generally conducted on monthly basis.⁶⁷⁷

Both agencies, particularly DSİ, are expanding their networks in terms of sampling sites (Figure 3) and variables sampled. However, it is criticized that this expansion is carried out without clearly defined objectives and guidelines. As government subsidies are gradually withdrawn, the monitoring agencies are now faced to reassess the performance of the existing networks. The first step would be an assessment of the efficiency and cost-effectiveness of current monitoring practices⁶⁷⁸. It is

⁶⁷⁷ Berna Kendirli, Belgin Çakmak and Zeki Gökalp, *op. cit.*, p. 451.

⁶⁷⁸ *Ibid.*, pp. 451-452.

advocated that the result of such an evaluation should lead to a redesigning of the process to assure an optimal performing network.

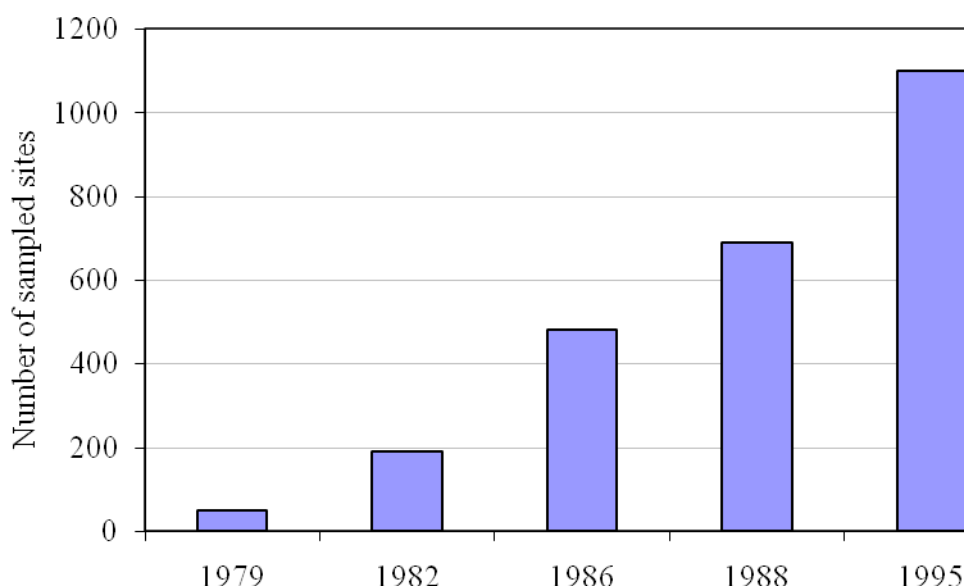


Figure 3. Water quality monitoring by General Directorate of State Hydraulic Works (DSI) from 1979 to 1995

Source: Nilgün Harmancıoğlu et al., “Design and evaluation of water quality monitoring networks for environmental management”, Report prepared for the research project DEBAG-23, 1994.

The Provincial Directorates of the MoEF monitors the environmental condition in the city and has the power to stop industries that are polluting the environment. The Directorate first issues a warning letter, and then imposes a fine, followed finally by a closure order. The Directorate cannot fine or close a factory under its own right, it has to draft a letter and submit it to the Provincial Governor for him to issue. The basic problem associated with Provincial Directorates of MoEF is the lack of sufficient number of qualified personnel.⁶⁷⁹

The MoEF is responsible for industrial and wastewater pollution. However with regard to the pollution from agriculture, whether it is diffused or point, the responsibility is on the Ministry of Agriculture and Rural Affairs. It is reported that

⁶⁷⁹ Ebru Olgun, Expert, Environment Reference Laboratory, personal interview, Ankara, May 2011.

the MARA monitoring is few times annually. Previously, before the GDRS (which was –formerly- a MARA institution) was abolished in 2005, the water quality studies were said to be more effective. In this regard, the abolishment of the GDRS was criticized on the grounds that the efficiency of monitoring studies left to chance, and thus, protection of water and soil resources was being endangered⁶⁸⁰.

Municipalities are responsible for supplying clean water to their inhabitants.⁶⁸¹ Taking necessary measures to provide environmental health is also one of the duties of municipalities. According to the Law No. 5216, Metropolitan Municipalities shall protect water basins in accordance with the principle of sustainable development beside providing water and sewage services.⁶⁸² All these imply that municipalities have to monitor quality of water they supply for the people. However, most of the over 3000 municipalities in Turkey lack the capacity to monitor water quality. It is the case that only metropolitan municipalities have means to regularly monitor water quality. Metropolitan municipalities have specific organizations established to deal with water and sewage services within municipalities.

The forerunner municipality organization within the water realm is the Istanbul Water and Sanitation Administration, which was established in 1982. This administration has issued instructions against the pollution of the drinking water supply. It has set standards for the disposal of sewage, and implemented them in the city of Istanbul. In 1987, similar institutions were set up in Ankara and İzmir, and these have issued their own regulations. Within this context, special regulations were prepared for three metropolitan cities toward the preservation of water quality. For instance in Ankara, all the treatment processes are inspected daily by General Directorate of Ankara Water and Sewage Administration (Turkish acronym, ASKİ).

⁶⁸⁰ See for instance TMMOB- Chamber of Agricultural Engineers, “Topraklar ve Sular Sahipsiz Bırakılmamalı”, statement, 11.01.2005, on file with the author.

⁶⁸¹ Article 14 of the Act No. 5215, “Municipality Law”, 09.07.2004.

⁶⁸² Article 7 of the Act No. 5216, “Metropolitan Municipality Law”, 10.07.2004.

In addition, drinking water samples collected at certain intervals from 400 different locations are analyzed in ASKİ laboratories. Analyses include measurements of muddiness (NTU), pH, residual Chlorine, Aluminum (Al^{+3}), Hardness (FS), Alkalinity ($Ca CO_3$), Nitrate, Ammonium, Conductivity, organic materials and bacteriological analysis. For the wastewater treatment, the goal is to increase the water quality from 4th class to 2nd class and to reduce the BOI_5 concentration in rivers to below 8 mg/l level.⁶⁸³

With regards to coastal water quality (bathing areas), the responsibility rests with the Ministry of Health. With over 1000 stations, bathing water is monitored by the MoH. Within the MoH administrative structure, the General Directorate of Primary Health Care is the unit taking care of bathing water monitoring. Additionally, the Ministry of Environment and Forestry has the right to perform monitoring activities in those waters, if required. In lake and sea coasts that are conventionally used by a large number of bathers in the bathing season, the “Provincial Health Directorates” of the Ministry of Health are carrying out microbiological monitoring studies at sampling points that are determined by the Commission established in accordance with the By-law on Bathing Water Quality. The Provincial Health Directorates of the Ministry of Health also determine the bathing water sampling schedules for bathing season before the season. The Ministry of Health sends the results of the monitoring activities to the Ministry of Environment and Forestry. When the bathing and recreational water monitoring results reveal that there are deviations from the parameter values, the Ministry of Environment and Forestry is doing the necessary inspections to prevent pollution in source .

Comparing the number of studies carried out for the assessment of the “quantity” related aspects of water resources, it could be maintained that “qualitative” assessments of water resources in Turkey is arguably limited.⁶⁸⁴The problems

⁶⁸³Berna Kendirli, Belgin Çakmak and Zeki Gökalp, *op. cit.*, p. 453.

⁶⁸⁴ Veysel Eroğlu, *op. cit.*, p. 327.

associated with supply of water in sufficient amounts and concomitant works of infrastructure have occupied much of the Turkish water management agenda for a long time. In parallel with the developments in the international scene in late 1960s and early 1970s, through which an environmental awareness has emerged, Turkey has also started to take action concerning environmental protection, albeit in an unsystematic fashion.

Within this regard, the first law related with the prevention of water pollution in Turkey is the 1971 Aquatic Products Law. This Law is accused of falling short of providing a solution to the problem of water pollution on a nationwide basis, as it took aquatic environments only from the standpoint of their suitability for fishing. The first major legislation related to the qualitative analysis of water resources was the enactment of “Environment Law” in 1983⁶⁸⁵. The basic aim of this law is to protect the environment and to prevent pollution by applying the “polluter pays” principle. In this respect, the Law takes the problems of the environment in their largest dimension. According to first Article of the Law, the main aim is “not only the prevention and elimination of pollution but also the preservation and utilization of natural resources in the most appropriate manner”⁶⁸⁶.

However, this Law was not able to eliminate “the need for comprehensive legislation with wide ranging powers over the control of water pollution”⁶⁸⁷. As a consequence, in line with the 1983 Environment Law, the Water Pollution Control By-law was

⁶⁸⁵ Act No. 2872, 11.08.1983, Official Gazette No. 18132.

⁶⁸⁶ Article 1, Environment Law, 1983.

⁶⁸⁷ Nilgün Harmancıoğlu, Necdet Alpaslan and Eline Boelee, “Irrigation, Health and Environment: A Review of Literature from Turkey”, *International Water Management Institute*, Working Paper 6, 2001, p. 30. Also see, Berna Kendirli, Belgin Çakmak and Zeki Gökalp, *op. cit.*, pp. 446-455.

enacted on 4 September 1988⁶⁸⁸. Although the 1988 By-law set ambitious targets, the implementation has always been weak.⁶⁸⁹

The purpose of the Water Pollution Control By-law was “to define the legal and technical principles regarding the protection of the national water resources potential”. The framework of this pollution prevention legislation was “to ensure the use of water in the best possible way that would be harmonious with the socio-economic development efforts of the nation.” In this respect, it could be argued that the sustainable development focus was firmly embedded to this By-law. To put it in other way, a balance between the acceptance and treatment of water resources within the framework of an ecosystem and conservation of them in their existing conditions; and the protection and improvement of water quality in accordance with the requirements of the country was sought.

The main priorities of the By-law 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. In the Water Pollution Control By-law, discharge parameters which are collected under 16 sectoral headings were determined, as well.

In conditions where water for irrigation is limited, re-using treated wastewater in irrigation becomes inevitable. Within this perspective, standards for the re-use of wastewater for irrigation are provided in the Water Pollution Control By-law. These criteria are determined by DSİ, the Bank of Provinces, and the Ministry of Agriculture and Rural Services in a coordinated fashion. According to these criteria, the following parameters for treated wastewater should be examined prior to their use for irrigation:

- Total dissolved solids concentrations and electrical conductivity,
- Sodium concentration, relative to other salts,

⁶⁸⁸ Official Gazette No. 19919.

⁶⁸⁹ Ayşegül Kibaroğlu et al., *op. cit.*, “Cooperation...”, p. 12.

- Concentrations of boron, heavy metals and other toxic substances,
- Ca⁺⁺ and Mg⁺⁺ concentrations,
- Total solids, organic substances and floating substances such as oil and grease Pathogenic microorganisms.⁶⁹⁰

The By-law was replaced by a new one in 2004. The new By-law was adopted on 31 December 2004, published in Official Gazette No. 25687. On 13 February 2008, an Amendment was made to the By-law⁶⁹¹ making it fully in line with the EU legislation.

Article 51 of the new version of the Water Pollution Control By-law provides a good summary of the responsible authorities from inspection and monitoring, which is worth quoting at length. It reads:

“-With regards to wastewater discharges into receiving bodies, in accordance with the Environment Law and the Law on Organization and Duties of the Ministry of Environment and Forestry, the Ministry (MoEF) is authorized. In provinces, this authority is used by Provincial Directorates of the Ministry.

-In accordance with the Act No. 2560, Metropolitan Municipalities are responsible from inspection activities concerning inland surface water basins which supply water for metropolises.

-In accordance with the Environment Law, Provincial Directorates of the MoEF are responsible from the inspection activities concerning water basins which supply water for settlements other than Metropolitan Municipalities.

-Provincial Directorates of MoEF are responsible from the inspection activities concerning the prescriptions laid out in Discharge Permissions and Deep Sea Discharge Permissions.”

⁶⁹⁰ Nilgün Harmancıoğlu, Necdet Alpaslan and Eline Boelee, *op. cit.*, p. 38.

⁶⁹¹ Official Gazette No. 26786.

Within the framework of the Water Pollution Control By-law, qualitative assessment works have been performed to investigate the present conditions of water resources in Turkey. For the time being, more than 20 water quality evaluation and management projects including mathematical models, are done in different river basins (small and large ones) and 2 more projects are under preparation stage.

The concept of environmental impact assessment (EIA) for proposed projects was introduced in the Environmental Law; and accordingly, the EIA By-law was issued in 1992 and revised in 1997 and 2002. This By-law is another tool for protection of all natural resources including water resources. This means that the EIA framework is intimately linked to the “quality side” and monitoring of water resources. In this By-law, there are two lists differing according to type and size of the industrial activities. EIA or pre-EIA reports are prepared for the newly planned facilities, according to this differentiation. EIA reports prepared by the facility owner are overviewed by all the related governmental institutions and sometimes also by non-governmental organizations, aiming to provide minimization of environmental impacts and taking necessary precautions to prevent environmental pollution.

Membership of Turkey to the European Environment Agency and European Information and Monitoring Network was realized on 23 January 2003. This was one of the short-term benchmarks promised by Turkey in its National Program. In this framework, comparison of current legislation with the EU legislation was carried out; deficiencies and investment requiring issues and the amount of investments required were all determined. Being a member of European Environment Agency and European Information and Monitoring Network will contribute for Turkey in standardization in data collection and processing.⁶⁹²

⁶⁹² Hülya K. Özdiñç, “Avrupa Birliđi’nde Su Politikaları”, in Tayfun Çınar and Hülya K. Özdiñç (eds.), *op. cit.*, p. 176.

As already stated, monitoring of surface and groundwater is carried out by several institutions (Ministry of Health, Ministry of Environment and Forestry, DSI, EIEI, General Directorate for Rural Services [now defunct] and Municipalities). This causes an authorization predicament. Due to improper water quality monitoring and utilization of old systems, reliable information about water quality could not be obtained and it is not possible to monitor the changes in water quality in a systematic fashion. Thus, it is argued that monitoring networks in Turkish rivers are far from being systematic, while monitoring objectives and information expectations are not clearly defined. Recently, however, as part of an EU funded project DSI, in association with MARA and the MoEF, are monitoring the nitrate levels in agricultural soils. Studies have already taken place in Eskisehir and are ongoing in Adana. This project could be seen as an effort for “integration” of monitoring activities of the responsible institutions, the lack of which remains the main reason behind the allegation that water quality monitoring in Turkey is not systematic.

Turkey’s quest for WFD alignment would imply a reappraisal of Turkey’s monitoring practices through which aforementioned problems would be dealt in an integrated fashion aiming a more efficient and standardized monitoring scheme. This reappraisal will involve not only a strengthened focus on the implementation of the existing monitoring schemes, but also utilization of new monitoring practices (such as biological monitoring, new parameters to measure, new points of sampling, sampling from lakes) compliant to the WFD requirements. All these efforts would entail substantial increases in number of personnel and funds devoted to monitoring.⁶⁹³ Although some part of the financial contributions would originate from EU funds, bulk of the investments is to be done by Turkey itself. From the legal perspective, however, Turkey demonstrates a more advanced status, well ahead of implementation. For instance, the Water Pollution Control By-law has some sophisticated stipulations, and sometimes stricter than the WFD. With respect to lakes, for instance, while one point of sampling would be sufficient for WFD requirements, the Water Pollution Control By-law requires designation of one or

⁶⁹³ Ebru Olgun, Expert, Environment Reference Laboratory, personal interview, Ankara, May 2011.

more points depending on the surface area of the lake. Apart from the Water Pollution Control By-law, a number of Directives related to the monitoring activities have either been transposed, or a clear deadline for transposition has been set.

From the side of implementation, steps towards harmonization with WFD requirements have already begun to be taken. The most notable one of these steps is the Twinning Project focusing on monitoring which would last four years (2010-2014). Besides, regular monitoring activities on the basis of river basins have been initiated by the MOEF in 2011. The first river basin to be monitored is Büyük Menderes. In Büyük Menderes, first, field studies are conducted by a group of experts from Sampling and Monitoring Department (Directorate General for Environment Management, MoEF), as well as from Provincial Directorates of MoEF, aiming to determine the points of sampling. Following these studies, samples are begun to be taken once in every two months.⁶⁹⁴ Monitoring studies similar to this will be instigated in four additional river basins in 2011.⁶⁹⁵ However, it has been acknowledged by Turkish authorities that there is a long way to go for provision of a workable monitoring system that is in compliance with WFD rules.⁶⁹⁶ This implies a rather “phased” harmonization with regards to institution of monitoring in Turkey. All in all, the necessary changes in legislation appear to be easier part and the main challenge lies in the implementational aspects.⁶⁹⁷

5.2.5. Public Participation

Water Framework Directive basically requires realization of a “river basin management” approach through implementation of River Basin Management Plans

⁶⁹⁴ It should be noted that, these monitoring activities do not cover “biological” monitoring. Biological monitoring is due to start following the completing of Twinning Project on Monitoring (Ebru Olgun, Expert, Environment Reference Laboratory, personal interview, Ankara, May 2011).

⁶⁹⁵ Sakarya, Akarçay, Antalya and Susurluk river basins.

⁶⁹⁶ Ebru Olgun, Expert, Environment Reference Laboratory, personal interview, Ankara, May 2011.

⁶⁹⁷ For a discussion on the challenges in monitoring activities in Turkey, see Fikriye Baltacı, Aylin Kübra Onur and Sait Tahmiscioğlu, “Water quality monitoring studies of Turkey with present and probable future constraints and opportunities”, in *Desalination*, Vol. 226, 2008, pp. 321–327.

which consist of programs of measures defined for each river basin district. Adopting participatory governance as the *modus operandi*, instead of a technocratic administration is regarded as one of the distinctive features of river basin management approach. It is recognized that public participation is of key importance for a successful river basin management.⁶⁹⁸ Public participation to implementation of water management policy reduces the problems of legitimacy and enforcement.

In parallel to aforementioned arguments, WFD specifically attaches great significance to the concept of public participation. It is stated in Recital 14 of the Directive that “[T]he success of this Directive relies on close cooperation and coherent action at Community, Member State and local level as well as on information, consultation and involvement of the public, including users.” Although the phrase “public participation” does not appear in the Directive, three forms of public participation with an increasing level of involvement are mentioned: information supply; consultation; and active involvement.⁶⁹⁹ According to the Directive, the first two are to be ensured, the latter should be encouraged. According to Article 14, Member States are obliged to “encourage the active involvement of all interested parties in the implementation” of WFD. As stipulated by the Directive, public participation should be ensured before the final decisions on the measures in river basin management plans are taken.⁷⁰⁰ As the RBMPs would cover a number of issues pertaining to management of water resources on the river basin scale (e.g. pricing, monitoring, land use, transboundary aspects, treatment, etc.), public

⁶⁹⁸ Aybike Ayfer Karadağ and Mehmet Emin Barış, “Isparta İli Kovada Alt Havzası Katılımcı Havza Yönetimi Sürecinde Paydaş Analizi Araştırması”, in *Tarım Bilimleri Dergisi*, Vol. 15, No. 3, 2009, p. 259.

⁶⁹⁹ See European Communities, *op. cit.*, “Guidance Document No. 8...”.

⁷⁰⁰ Recital 46 of the WFD states: “To ensure the participation of the general public including users of water in the establishment and updating of river basin management plans, it is necessary to provide proper information of planned measures and to report on progress with their implementation with a view to the involvement of the general public before final decisions on the necessary measures are adopted.”

participation requirement of the WFD should be understood as implying a broad perspective for involvement of public in decision making processes.⁷⁰¹

Due to a number of reasons, participation of public in political decision making processes tends to be low in Turkey.⁷⁰² This has implications for many policy areas including water management policy. Therefore, the level of public participation in water management policy in Turkey is similar to what has been experienced in other areas of political decision making procedures. Concerning the three forms of public participation, while “information supply” and “consultation” are partly put into practice, “active involvement” of stakeholders is not encouraged by tangible institutions or procedures.

Environmental Impact Assessment framework is argued to be the single institutionalized instrument in Turkey allows for direct participation of the public in decision-making with respect to water resources development.⁷⁰³ Beginning from its first adoption in 1993, the Turkish EIA By-law⁷⁰⁴ has been frequently revised in order to align with the EU EIA Directive of 1985 and its amendments.⁷⁰⁵ The revisions to the EIA By-law made since 1993 have incrementally improved the means for the public to participate in the EIA procedure.

⁷⁰¹ For a detailed account of public participation in the WFD, see European Communities, *op. cit.*, “Guidance Document No. 8...”.

⁷⁰² Mustafa Ökmen and Fatih Demir, “Türkiye’de Katılımcı Çevresel Etki Değerlendirmesi ve Uşak İli Örneği”, in *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi*, Vol. 27, August 2010, pp. 271-272. These reasons could be summarized as the Ottoman legacy, military interventions, frequent changes in election legislation, lack of implementation of the laws related to decentralized administration (e.g. municipal laws).

⁷⁰³ Waltina Scheumann, “Environmental Impact Assessment in Turkish dam Planning”, in Ayşegül Kibaroğlu et al., *op. cit.*, forthcoming, page not available.

⁷⁰⁴ The By-law on Environmental Impact Assessment (EIA) was prepared on the basis of Article 10 of Environment Law No. 2872 dated on 09.08.1983.

⁷⁰⁵ There four revisions made (1997, 2002, 2003, 2008) which aimed continuous harmonization of Turkish environmental legislation with the environmental *acquis* of the EU in that particular area .

As it stands now, the By-law of 2008 provides for public participation in the scoping phase and for a public meeting⁷⁰⁶ and written submissions by the public⁷⁰⁷ concerning the final EIA report. The term “public”, as used in the Turkish EIA By-law, allows -in principle- everybody to participate and is, thus, broader than the requirement of the EU EIA Directive which restricts the right of participation to the “public concerned”.⁷⁰⁸ Furthermore, the EIA reports are supposed to be made available to the public, including non-technical summaries, by displaying them at the provincial governors’ offices or the MoEF Provincial Directorates. During participation meetings the public may ask questions, and the EIA commission and the project developer are obliged to answer them. All comments made by the public must be recorded and taken into account during the subsequent stages of the EIA process. Written submissions by the public can be sent to the MoEF or its Provincial Directorates, and the EIA commissions and the MoEF need to take into account the reservations and recommendations made, and to inform the public about its final decision.⁷⁰⁹

While legislation provides for public participation, public disclosure of information is weak. This is especially associated with the final decisions made by the Ministry, to the conditions attached to the clearance document and to both monitoring by public authorities and reporting by project developers. It is elsewhere recommended that provincial administrative capacity should be strengthened.⁷¹⁰

Apart from the EIA processes, “information supply” is not much developed. For instance, a study by Euro-Mediterranean Information System on Know-How in the Water Sector (EMWIS) found that monitoring data dissemination in Turkey is one of

⁷⁰⁶ Article 10.

⁷⁰⁷ Article 12.

⁷⁰⁸ Waltina Scheumann, *op. cit.*

⁷⁰⁹ Waltina Scheumann, *op. cit.*, page not available.

⁷¹⁰ *Ibid.*, page not available.

the lowest among eleven Mediterranean partner countries (Algeria, Cyprus, Egypt, Israel, Jordan, Lebanon, Morocco, Palestine, Syria, Tunisia and Turkey).⁷¹¹ Also, water quality data is not shared with respect to transboundary waters.⁷¹²

Determination of water fees by irrigation associations could be regarded as an effective framework where users are able to take part in decision making. As it was discussed previously, beginning from early 1990s into 2000s, DSİ has transferred nearly 95% of the irrigation systems to users. Irrigation associations are able to set the water fees, while DSİ has to approve and if necessary adjust the fees set by the associations, in cases of extremity. As reported by DSİ authorities in Directorate General XI., Edirne, DSİ has intervened only two times to the levels of fees determined by irrigation associations in nearly two decades.⁷¹³ Therefore, it could be argued that from early 1990s onwards, “active involvement” of irrigation associations in decision-making process of water fee has become an institutionalized reality. In this respect, when compared with other prevailing forms of public participation practices (e.g. information disclosure through web sites); the role of irrigation associations is exceptional in its scope, providing a sustainable setting for the highest possible level of participation. In other words, the increasing role of irrigation associations in Turkey exemplifies a successful model for development of an enhanced public participation in water management decision-making processes.

In brief, the institution of public participation does not fully conform to the WFD framework, which entails three forms of public participation, namely “information supply”, “consultation”, and “active involvement”. Mostly, “information supply”, and, at best, “consultation” are two forms that public participation in Turkey

⁷¹¹ For details see EMWIS, *Characterisation of the Monitoring networks and programs in the Mediterranean Partner Countries: Synthesis of Survey Answers*, on file with the author, 08.10.2010.

⁷¹² Yavuz Çubukçu, International Law Expert in Ministry of Foreign Affairs, personal interview, Brussels, January 2008.

⁷¹³ İsmail Ülkü, Head of Unit, Operation and Maintenance, DSİ Directorate General XI., Edirne, personal interview, October 2010.

practically takes place. Irrigation management provides an example for “active involvement”. Therefore, for a genuine application of WFD rules, an intensification of mechanisms enabling active involvement of public to decision-making processes seems necessary. However, failing to do so, i.e. continuation of current practices regarding participation of public, which mostly comprise “information supply” and “consultation” measures, will not necessarily result in breach of the WFD. This is because of the fact that WFD stipulates that Member States shall “encourage” active involvement of public. While provision of “information supply” and “consultation” is obligatory, ensuring “active involvement” of the public is to be, at least, encouraged. In other words, if Turkey shows considerable effort in encouraging active involvement of public (provided that it ensures “information supply” and “consultation”), it will remain in conformity with the WFD framework. All in all, ensuring “information supply” and “consultation” will necessitate notable efforts: web page improvements, organization of public hearings on RBMPs, providing access to background documents, etc. In this sense, although harmonization with the participation related WFD stipulations seems rather easy at first sight; a closer look reveals that accomplishment of specific tasks are required.

5.3. Water Management in Turkey: Actors (Organizations) in the Making

There are a number of organizations involved in different aspects of water management in Turkey, which are founded through enactments of their respective establishment laws. In a synopsis, the leading government body that deals with *protection* of natural resources including water is the Ministry of Environment and Forestry. The Environmental Protection Agency for Special Areas (EPASA) of the MoEF is responsible for the management and protection of 13 Special Protected Areas including the planning of public works and investments and inspection in these areas.⁷¹⁴ In addition, the Ministry of Agriculture and Rural Affairs is responsible for making investigations and preparing projects to protect and improve soil, water, plant, animal and fisheries resources and products, to control wastewater discharges

⁷¹⁴ See <http://www.cevreorman.gov.tr>, accessed on 04.06.2010.

into fish production areas, and to monitor nitrates parameters in freshwater and groundwater in accordance with Decree-Law No. 441. The Ministry of Agriculture and Rural Affairs is responsible for the implementation of Fishery and Aqua Culture legislation as well as for pesticide control. In co-operation with the MoEF it is responsible for developing good laboratory practice. The Ministry of Agriculture and Rural Affairs monitors water courses for pollution from agricultural sources – pesticides and fertilizer run-off. Also, the Ministry of Health is responsible for determining quality standards for drinking water and water for consumption, monitoring these standards and preparing legislation in these areas. Decree-Law No. 181, on the Organization and Duties of the Ministry of Health of 1983⁷¹⁵ gives the Ministry this authority and obligation. The role of the Ministry of the Interior is an important one in the implementation of the water legislation as it provides the administrative control for the regional administrations at municipal level delivering the water services to the public. The Ministry of Tourism is also actively involved in water management, building waste water infrastructure systems in tourist areas. The EİEİ is engaged in research on water resources for energy production. Its responsibilities are in the planning and the development of feasibility studies and project related services for dams and hydroelectric energy plants on rivers in Turkey.⁷¹⁶ The General Directorate for Rural Affairs (which has been closed in 2005) had certain responsibilities for water resources in rural areas – drinking water supply facilities and waste water systems. The Directorates for Water and Sewage of Greater Municipalities are responsible for inspecting the discharges of industrial sewage as well as the construction, operation and maintenance of water and wastewater treatment plans in their districts.

These organizations could be divided into three levels: decision making level, executive level and users level. The Prime Ministry, State Planning Organization and ministries comprise the decision making level. The second level, namely executive

⁷¹⁵ Article 9.e.

⁷¹⁶ See <http://www.eie.gov.tr>, accessed on 04.06.2010.

level is made up of governmental organizations under the aegis of the ministries (such as DSİ, EİEİ, etc.). The users level includes both governmental and non-governmental organizations which are involved in operation and maintenance of the projects.⁷¹⁷ The following discussion is based on this classification.

5.3.1. State Planning Organization (“Devlet Planlama Teşkilatı” in Turkish)

The State Planning Organization (SPO) is affiliated to the Prime Minister’s Office, and gives advice to the Government in determining economic, social and cultural policies and targets, taking into account Turkey’s natural, human and economic resources. SPO prepares long-term development plans and annual programs following the targets determined by government. It monitors, coordinates and evaluates implementation of development plans and annual programs and proposes amendments as required. SPO is comprised of the High Planning Council, the Money-Credit and Coordination Committee and the Under Secretariat of the SPO. The Under Secretariat employs some 600 personnel, and it has an access to all governmental information and data through its mandate.⁷¹⁸ With regards to water management, the SPO prepares one-year and five-year plans for development of the water resources and wastewater treatment plants.

5.3.2. Ministry of Environment and Forestry

The Ministry of Environment (“Çevre Bakanlığı” in Turkish), which was established on 21 August 1991 by the Decree-Law No. 443., replaced the Undersecretariat for the Environment, which led to the diversification of the Ministry’s responsibilities and to an expansion of its staff. This also led the administration’s empowerment

⁷¹⁷ Republic of Turkey, Ministry of Energy and Natural Resources, General Directorate of State Hydraulic Works (DSİ), *op. cit.*, p. 15.

⁷¹⁸ For a broader discussion on the SPO, see Alkan Soyak, “Türkiye’de İktisadi Planlama : DPT’ye İhtiyaç Var mı?” (“Economic Planning in Turkey: Is there a Need the State Planning Organization”), in *Doğuş Üniversitesi Dergisi*, Vol. 4, No. 2, 2003, pp. 167-182.

concerning the implementation and enforcement of policies for the protection and conservation of the environment.

The mandate of the Ministry covers issues such as appropriate land use, protection of natural resources including protection of the water, and prevention of pollution. Its departments that are concerned with water resources are the Directorate General of Environmental Protection (“Çevre Koruma Genel Müdürlüğü” in Turkish) and the General Directorate of Environmental Impact Assessment and Planning (“Çevresel Etki Değerlendirmesi ve Planlama Genel Müdürlüğü” in Turkish). Environmental Protection Agency for Special Areas (EPASA),⁷¹⁹ which had been linked to the Prime Ministry at the very beginning, was also linked to the Ministry of Environment by its establishment in 1991. EPASA was then linked to the Ministry of Environment and Forestry (“Çevre ve Orman Bakanlığı” in Turkish) after these two Ministries were united on May 1, 2003 (Law no. 4856)⁷²⁰. EPASA is responsible for protecting and managing the natural and environmental values of 14 Special Protected Areas, and has been carrying its operations as a public institution, having a special budget.

The provincial branches of the Ministry are responsible for taking measures in order to prevent and minimize pollution, to inspect any activity that might threaten the ecology and cause sea pollution. The Ministry’s provincial branches inspect whether discharge of waste water from industry and domestic sources into rivers comply with legal standards. The Ministry has recently started to publish provincial “state of the environment” reports.

However, as a relatively new Ministry, the debate about the exact role and competence of the MoEF was not easily settled. One reason for this is the fact that “the laws establishing the other ministries were not reviewed in light of the duties

⁷¹⁹ EPASA was established on 13.11.1989 by the Decree-Law (No. 383, published in Official Gazette No. 20341) pursuant to related protocol and to the Article 9 of the Law on Environment No. 2872.

⁷²⁰ Act no. 4856 on the Organization and Duties of Ministry of Environment and Forestry, Official Gazette No. 25102, 1.5.2003.

and responsibilities given to the Ministry of Environment”, when the Ministry was established in 1991.⁷²¹ This has also led to overlaps of duties and responsibilities which ultimately result in possible conflict and lack of co-ordination and co-operation with other official organizations. On the other hand, despite the fact that, there is quite some time passed from the establishment of the then Ministry of Environment and Forestry, the MoEF is still regarded as a young ministry, by the Ministry itself.⁷²² To overcome the problems of organization, and to facilitate creation of an institutional culture, the development of a “mission statement” had been recommended. In this view, the mission statement of the MOEF, which would be developed on an assessment of existing and required resources and capacities, was regarded as an important step for the Ministry’s internal functioning and for an enhanced coordination and cooperation with other official organizations.⁷²³ This mission statement became possible with the enactment of Act No. 5018⁷²⁴. With the document called “Strategic Plan (2010–2014)”, MoEF has defined its mission, vision, fundamental values and objectives and measurable indicators for reaching the objectives. The main goal of MoEF is declared as “to produce effective solutions for achieving its duties and responsibilities given by the organic law of the Ministry, and to be an organization in continuous progress to reach its vision”.⁷²⁵ Furthermore, this Strategic Plan is important in the sense that it provided a list of weaknesses of the Ministry, as perceived by Ministry officials.⁷²⁶ Regarding the limitations that MoEF

⁷²¹ Carl Bro International, *Analysis of Environmental Legislation for Turkey*, Project No. LOHAN-23-MEDA/TUR/ENLARG/D4-01, 2002, p. 8.

⁷²² Republic of Turkey, *Strategic Plan 2010-2014*, July 2009, Ankara, p. 26.

⁷²³ See World Bank, *op. cit.*, p. 20.

⁷²⁴ “Law on Public Fiscal Management and Control”, 24.12.2003, Official Gazette No. 25326. With this Act, “Strategic planning” has been a basic tool for increasing the policy making capacity of public institutions, ensuring financial discipline during budget preparation and implementation processes, monitoring whether resources are utilized efficiently and effectively, and developing organizational accountability based on these elements.

⁷²⁵ Republic of Turkey, Ministry of Environment and Forestry, *Strategic Plan (2010-2014)*, April 2010, Ankara, p. i.

experience, looking into an inventory report published in 2010, namely “Inventory Evaluation Report on Environmental Problems and Priorities in Turkey”⁷²⁷ will provide information. This report was prepared with the information sent from Provincial Directorates of MoEF⁷²⁸. If these weaknesses and shortcomings are taken seriously, these documents could become steering guides for further activities of the Ministry, enhancing its institutional capacity.

On 30 August 2007, the DSİ has become part of the Ministry of Environment and Forestry, by a decree-law. The main reasoning for this change, according to Turkish official view, was to eliminate the fragmentation in water management. The integration of DSİ into the structure of MoEF, in this view, represents a major development for a more integrated water management policy.⁷²⁹

With this development, water quantity and water quality management was officially unified under a single Ministry.⁷³⁰ According to the European Commission, attachment of DSİ to the MoEF is a step forward in terms of harmonization with EU requirements in water quality sector, and represents a development towards increased administrative capacity.⁷³¹ However, there are several opposing views mentioning

⁷²⁶ Authority conflicts within the Ministry/task overlaps, lack of coordination, inability to secure stability in institutional structuring, lack of sustainable personnel policy, insufficiency of personnel rights, insufficient inspections and implementation of legislation, deficiency in provincial personnel, deficiency in up-to-date, reliable and accessible inventory, no consideration given for merit in assignments, research-developments activities are not sufficiently oriented towards implementation, difficulties and deficiencies in applying environmental penalties, insufficient financial resources, insufficiency in molding public opinion, insufficient archive for institutional memory, difficulties in calculating environmental costs, inability in assigning sufficient functionality to some units, slow decision making mechanism, deficiencies in perception and implementation due to frequent legislative changes, lack of clear task definitions.

⁷²⁷ Republic of Turkey, Ministry of Environment and Forestry, “Inventory Evaluation Report on Environmental Problems and Priorities in Turkey”, Ankara, 2010.

⁷²⁸ Except Şırnak Provincial Directorate.

⁷²⁹ Veysel Eroğlu, Minister of Environment and Forestry, statement, available online at <http://www.globalenerji.com.tr/hab-23000205-113,41@2300.html>, accessed on 02.04.2011.

⁷³⁰ Alara İstemil, “Türkiye’nin Çevre Yönetiminin Güçlendirilmesi ve Sürdürülebilir Kalkınmasının Sağlanmasına Yönelik OECD Tavsiyeleri”, in *Uluslararası Ekonomik Sorunlar*, Vol. 32, 2008, p. 38.

⁷³¹ European Commission, Annual Progress Report-Turkey, 2008, pp. 77-78.

the possible problems associated with this new structure. For some experts, attaching DSİ to the MoEF will cause a serious “conflict of interests”, causing problems of mismanagement. According to this view, all infrastructure works done by DSİ are inherently damaging to environment. The role of MoEF, on the other hand, is to reduce, an if possible, to eliminate all kinds of these detrimental impacts. Therefore, a clash of interests becomes inevitable between two organizations.⁷³² As a result of clash of interests, some experts argued that either DSİ or the MoEF will establish a supremacy over the other organization. Dursun Yıldız, for instance, argues that DSİ’s central role in water resources development, which is characterized by its investor, provider and managerial functions, could be replaced by another role which is characterized by coordinating, supervision and monitoring tasks in the water sector.⁷³³ Thus, this new role could undermine the power and functioning of DSİ.⁷³⁴ WWF-Turkey, an NGO involved in environmental matters, on the other hand, mentions the risk that DSİ logic could take MoEF as a hostage. WWF-Turkey states that “environmental protection will be ignored and the clashing discourses and conflict of interests between the DSİ and the MoEF will give way to the dominance of the DSİ approach in the MoEF”⁷³⁵. According to this understanding, placing DSİ with its large number of personnel and large investment portfolio for water resources development, under the MOEF could damage main functions of the Ministry as a monitoring oriented organization.⁷³⁶ Hence, both views imply that, incorporation of DSİ into the MoEF structure will not result in a smooth process of co-habitation, rather the process will suffer from an increased conflictual institutional setting which is characterized by differentiated interests. In turn, the outcome of this decision could

⁷³²Metin Munir, Milliyet (national newspaper) article, available online at <http://www.milliyet.com.tr/2007/09/26/yazar/munir.html>, accessed on 01.04.2011.

⁷³³ Dursun Yıldız, *op. cit.*, “GAP: Bölgede Ekonomik...” .

⁷³⁴ See Sami Koç, “Bölgemiz Hes’leri Tartışıyor”, in *Türkiye Mühendislik Haberleri*, Vol. 457, No. 5, 2009, p. 31.

⁷³⁵ Ayşegül Kibaroğlu and Argun Başkan, *op. cit.*

⁷³⁶ *Ibid.*

be contrary to what had been aimed by authorities, namely elimination of fragmentation.

With regards to the EU harmonization process on water management issues, the role of the Ministry is noteworthy. At the planning and co-ordination level it has been shown to be important to clearly designate one authority at the national level to assume the overall co-ordination and responsibility for the approximation of the EU environmental *acquis*. This role has been given to the MoEF by the National Program in 2003⁷³⁷. This coordinator role of MoEF has been reiterated in subsequent official documents.⁷³⁸ Furthermore, with regards to the WFD, which requires determination of a competent authority, the Ministry of Environment and Forestry is declared as the competent authority.

Within the structure of the Ministry, the Department of Foreign Relations and European Union (“Dış İlişkiler ve Avrupa Birliği Dairesi Başkanlığı” in Turkish, is responsible from the overall coordination with regards to activities of harmonization with the EU environmental *acquis*, including the *acquis* on water.⁷³⁹ Additionally, the Department is responsible from preparatory and follow-up Works related with EU projects (e.g. Twinning Projects). They are in close cooperation with the General Secretariat for EU Affairs. There is a Branch within the Department structure called Branch Office for EU Relations (“Avrupa Birliği İlişkileri Şube Müdürlüğü” in Turkish), which is specifically responsible from coordination activities and duties related with preparatory works of EU projects.⁷⁴⁰

⁷³⁷ Republic of Turkey, Ministry of Environment and Forestry, “AB Entegre Çevre Uyum Stratejisi” (“Integrated Harmonization Strategy for the Environment”), 2006, p. 72.

⁷³⁸ See, for instance Republic of Turkey, *National Program*, Ankara, 2008.

⁷³⁹ Article 15, Act No. 4856, 8.5.2003, Official Gazette No. 25102.

⁷⁴⁰ Article 145, Circular on “Merkez Teşkilatı Şube Müdürlerinin Görevleri, Çalışma Esas ve Usulleri”, 22.01.2004.

Beside coordination works, most of the WFD harmonization activities are conducted by the Directorate General of Environmental Protection.⁷⁴¹ For instance, studies for determination of special rules for protected areas (“özel hüküm belirleme çalışmaları” in Turkish) are carried out by DG Environmental Protection. Pre-accession Projects (e.g. MATRA Projects) and Twinning Projects are also carried out by this DG.⁷⁴² DG Environmental Protection is also performing tasks related to “River Basin Protection Action plans” (RBPAPs).⁷⁴³ Sensitive areas (“hassas alanlar” in Turkish) are being determined by this DG as well. This approach, namely designating a single Directorate General within the MoEF structure could be useful in terms of realization of a fast and effective harmonization process. As the experience of the personnel within the DG Environmental Protection over the techniques and instrument of EU approximation process accumulates, further works of harmonization could be achieved in a more accelerated pace. Therefore, the provision of sustainability to the DG Environmental Protection, in terms of organizational responsibilities, could be a facilitating factor in WFD harmonization process.

On 2011, with the Decree-Law No. 636, the MoEF was restructured as the Ministry of Environment, Forestry and Urban Development.⁷⁴⁴ Soon after this restructuring, on July 5, 2011, the Ministry of Environment, Forestry and Urban Development was separated into two ministries via a Decree-Law No. 645, namely the Ministry of Environment and Urban Development, and the Ministry of Forestry and Water Works.⁷⁴⁵

⁷⁴¹ See, Republic of Turkey, Ministry of Environment and Forestry, *2010 Yılı Faaliyet Raporu*, March 2011, Ankara, pp. 31-48.

⁷⁴² *Ibid.*

⁷⁴³ As of December 2010, 11 RBPAPs are completed.

⁷⁴⁴ Official Gazette No. 27858, 8.6. 2011. The Ministry of Public Works and Resettlement and the Ministry of Environment and Forestry were abolished, and the Ministry of Environment, Forestry and Urban Development was founded.

⁷⁴⁵ Official Gazette No. 27984, 4.7. 2011.

According to the Decree-Law, the Ministry of Forestry and Water Works will be responsible from making policies with regards to protection and sustainable use of water resources, and coordinating national water management.⁷⁴⁶ In this respect, the conduct of water management policy will be done by this new Ministry. Therefore, most of the water-related responsibilities of the former MoEF are being transferred to the Ministry of Forestry and Water Works. The main unit within the Ministry responsible from water management policy will be the Water Management Directorate General.⁷⁴⁷ For the first time, the name of a Ministry contains the word “water”. This signifies the specialization trend experienced in organizations’ structures. Instead of a sector in a multi-purpose Ministry of Environment and Forestry, water issues will be handled with this new ministry which will likely have a narrower mandate to focus on. The important point here is that, the accumulated knowledge and experience in MoEF should be properly transferred to the newly established Ministry.

5.3.3. Ministry of Agriculture and Rural Affairs

The Ministry of Agriculture and Rural Affairs, which was founded on August 9, 1991 with the Decree-Law⁷⁴⁸, is another organization involved in water management in Turkey.⁷⁴⁹ The Ministry has four General Directorates: General Directorate of Agricultural Production and Development, General Directorate of Organization and Support, General Directorate of Agricultural Research, and General Directorate of Protection and Control.

Two General Directorates have responsibilities for water management. One of them is the General Directorate of Organization and Support, which deals with the

⁷⁴⁶ Article 2.c.

⁷⁴⁷ Article 9.

⁷⁴⁸ Official Gazette No. 20955.

⁷⁴⁹ The Ministry of Agriculture, however, was founded on 6.3.1924, with the Act No. 432.

organization and oversight of Agricultural Cooperatives and Groundwater Cooperatives. It is also responsible for all the extension and training carried out by MARA. The irrigation cooperatives also operate under the responsibility of MARA. There is a regional association (TUSKOOOP – Turkish Irrigation Cooperative Association), to which each cooperative sends 2 people to regional meetings. For national meetings the regional association sends 2 representatives.⁷⁵⁰

The second General Directorate which has a responsibility in water management is the General Directorate of Protection and Control (GDPC) (“Koruma Kontrol Genel Müdürlüğü” in Turkish). One of the major duties of the GDPC is controlling of nitrate levels in soils. This also represents one of the major duties of MARA in terms of harmonization of EU water *acquis*.⁷⁵¹ MARA conducts nitrate controls according to a By-law published in 2004.⁷⁵² According to this By-law, MARA (in cooperation with MoEF, MoH and MENR) has responsibility to determine the water bodies having 50 mg or more nitrates per liter, and those water bodies having a risk of eutrophication (Article 5). According to Article 6, all these water bodies are defined as “vulnerable zones”. In order to control, reduce and eliminate the pollution caused by nitrates, the MARA (in cooperation with MoEF) has a duty to promote good agricultural practices (Article 7), prepare action programs (Article 8), and monitoring programs (Article 10) applicable in these vulnerable zones. A separate By-law on the

⁷⁵⁰ World Bank, *op. cit.*, p. 57.

⁷⁵¹ In order to facilitate the implementation of the Nitrate Directive, in particular, Turkey (MARA) applied for assistance in the form of an “Twinning Project” with Austria as senior Twinning partner and the Netherlands and the United Kingdom as junior partners. Twinning Project, namely “Capacity Strengthening and Support of Implementation of Nitrate Directive in Turkey” (TR/2007/IB/EN/01) had started in January 2009 and completed in December 2009. The main objectives of the Twinning Project were determination of the water resources which are subject or will be subject to nitrate pollution, description/determination of the vulnerable zones, development of codes of good agricultural practice and implementation, development of action programs for every vulnerable zone, and setting up a national monitoring and reporting system.

⁷⁵² By-law on Protection of Waters from Nitrate Pollution from Agricultural Sources (“Tarımsal Kaynaklı Nitrat Kirliliğine Karşı Suların Korunması Yönetmeliği” in Turkish), 18.02.2004, Official Gazette No. 25377.

technical and administrative elements of “good agricultural practices” was also enacted on September 8, 2004⁷⁵³. The action programs, which contain a number of measures⁷⁵⁴ for reduction and elimination of nitrate based pollution in waters, had to become operational within four years. Under the coordination of MARA; MoeF, MoH, MENR monitor nitrate levels in a number of designated points of survey.⁷⁵⁵

The second responsibility of the GDPC⁷⁵⁶ is to control water products, in accordance with the Water Products Law⁷⁵⁷ and Water Products By-law⁷⁵⁸. According to Article 22, it is prohibited to install any kind of equipment or facilities (e.g. nets, dams, etc.) on rivers which could prevent passage or reproduction of water products. A prior permission from MARA has to be obtained for such activities, according to same article.⁷⁵⁹ Furthermore, for all activities of water products procurements (“su ürünleri istihali” in Turkish), a licence document (“ruhsat tezkeresi” in Turkish) has to be obtained from MARA.⁷⁶⁰ Main duties of MARA in this respect include control and protection of water products stocks, provision of their rational use, control of their quality and issuing licenses.⁷⁶¹ In order to harmonize with the relevant EU *acquis*

⁷⁵³ Official Gazette No. 25377.

⁷⁵⁴ These measures may include determination of certian periods for fertilization, designation of limits on amounts fertilizers, determination of capacities of fertilizer storage facilities, etc. For an analysis, see Emine Olhan and Yener Ataseven, “Türkiye’de İçme Suyu Havza Alanlarında Tarımsal Faaliyetlerden Kaynaklanabilecek Kirliliği Önleme ile İlgili Yasal Düzenlemeler”, in *Journal of Tekirdağ Agricultural Faculty*, Vol. 6, No. 2, 2009, pp. 161-169.

⁷⁵⁵ *Ibid.*, p. 166.

⁷⁵⁶ *Water Products Services Department of GDPC (“Su Ürünleri Hizmetleri Daire Başkanlığı” in Turkish).*

⁷⁵⁷ 22.03.1971, Act No. 1380.

⁷⁵⁸ 10.03.1995, Official Gazette No. 22223.

⁷⁵⁹ Article 22 also requires establishment of fish ladders on facilities like dams and regulators.

⁷⁶⁰ According to Article 3, those aiming water products procurement on irrigation facilities like dams, canals etc. should get the prior approval of DSİ, before applying to MARA.

⁷⁶¹ See http://www.kkgm.gov.tr/birim/su_urn/su_urn.html, accessed on 17.04.2011.

concerning water products, a Twinning Project was conducted between January 2005 and November 2006.⁷⁶²

Before the GDRS was abolished, the main irrigation research was being conducted by the GDRS research stations, which was a unit under the MARA structure. Research stations of GDRS have been merged with the other Ministry research stations, after GDRS' closure. Currently, there is no department within MARA with responsibility for irrigated agriculture, and MARA's expertise at the extension level in this discipline is limited. Several local level studies indicate that closure of GDRS diminished the role that MARA played in irrigated agriculture. For instance, a study by Rıza Kanber and Mustafa Ünlü showed that the drainage research largely discontinued following the abolition of GDRS. Before the abolition of GDRS, a Drainage Survey Group ("Drenaj Araştırmaları Grubu" in Turkish) within the structure of GDRS was conducting studies on determination of drainage standards and measurement of the performances of current drainage systems. This unit was abolished with the closure of GDRS.⁷⁶³ Thus, due to the abolition of GDRS, the role of MARA in water management policy is reduced. In light of this development, with regard to its basic duties such as irrigated agriculture and on-farm water management, MARA is found to be "relatively weak".⁷⁶⁴

As a result of the restructuring of Ministries, on June 8, 2011, MARA was abolished, and the Ministry of Food, Agriculture and Animal Husbandry was established with

⁷⁶² Twinning Project No. TR-03-AG-01. Twinning Partners were Germany, the Netherlands, and Sweden.

⁷⁶³ See Rıza Kanber and Mustafa Ünlü, "Türkiye'de Sulama ve Drenaj Sorunları: Genel Bakış", 5. *Dünya Su Forumu Bölgesel Hazırlık Süreci DSİ Yurtiçi Bölgesel Su Toplantıları*, 10-11 April 2008, Adana, pp. 1-45.

⁷⁶⁴ World Bank, *op. cit.*, p. 56.

the Decree-Law No. 639.⁷⁶⁵ The role of this new Ministry in water management issues is yet to be seen.

5.3.4. Ministry of Health

The Ministry of Health (MoH) plays an important role in the monitoring and implementation process of water management through its responsibility for public health. Previous to the establishment of the Ministry of Environment its role was more profound. This can also be derived from prescriptions of the earliest water law in Republic of Turkey, Law on Waters, 1926. The Ministry of Health is responsible for determining quality standards for drinking water and water for consumption, monitoring these standards and preparing legislation in these areas. Government Decree-Law No. 181, on the Organization and Duties of the Ministry of Health of 1983⁷⁶⁶ gives the Ministry this authority and obligation.

The MoH is also responsible to varying degrees for EU environmental legislation. In the water sector, it is responsible for the co-ordination of the transposition of the EU Drinking Water directive as it performed the functions of drafting drinking water legislation, setting drinking water standards and implementation and monitoring of these standards by its “Environmental Health technicians” in the Provinces. The MoH also provided input to the MoEF’s legislation drafting studies concerning bathing waters. Provincial Directorates of MoH is monitoring bathing water quality at over 1000 bathing areas, via monthly sampling⁷⁶⁷, since 1990.⁷⁶⁸

⁷⁶⁵ Official Gazette No. 27958.

⁷⁶⁶ Article 9.e.

⁷⁶⁷ Zinnet Oğuz, E.Didem Evcı and Mustafa Özdemir, *Deniz ve Kıyı Kirliliği Avrupa Birliği Uyum Çalışmaları*, available online at <http://www.sumikrobiyolojisi.org/pdf/453100510.pdf>, accessed on 01.04.2011.

⁷⁶⁸ Republic of Turkey, Ministry of Health, *Temel Sağlık Bülteni*, Vol. 13, 2007, p. 1.

5.3.5. The State Hydraulic Works (Turkish Acronym “DSİ”)

The General Directorate of State Hydraulic Works (DSİ)⁷⁶⁹ is a legal entity included in general budget, and is the primary executive state agency responsible for planning⁷⁷⁰, management, development, and operation of the nation’s overall water resources. DSİ worked under the aegis of the Ministry of Energy and Natural Resources (MENR) and it has been affiliated with the Ministry of Environment and Forestry since 2007.

DSİ is responsible for four major tasks namely, irrigated agriculture enhancement, hydroelectric energy generation, water supply to cities⁷⁷¹, and flood prevention measures. Although DSİ is responsible for water resources, no license for abstraction of surface water is required for populations smaller than 100.000, unless DSİ had made a detailed assessment of the impact of the abstraction.⁷⁷² Local authorities can issue licenses for small scale abstractions from springs etc. The DSİ is also responsible for licenses for abstraction of groundwater.

In order to achieve the above-mentioned objectives, DSİ primarily develops dam projects which are at the centre of the four objectives. Therefore, DSİ is mainly known as a public agency developing dam projects. It is also an authority responsible for allocation of the nation’s surface and groundwater for single and multiple

⁷⁶⁹ The predecessor institution of the DSİ was “General Directorate for Waters” (GDW) (“Sular Umum Müdürlüğü” in Turkish) which was founded in 1929 under the aegis of Ministry of Public Works (“Nafia Vekaleti” in Turkish). However, the powers and authorities of DSİ are much broader than the GDW, as defined in Law No. 6200. See Özden Bilen, *op. cit.*, “Türkiye’nin Su...”, p. 290.

⁷⁷⁰ Overall planning for investment for water resources (e.g. dams, reservoirs, water supply) and pollution control (e.g. sewerage and sewage treatment) is the responsibility of the SPO.

⁷⁷¹ The DSİ was responsible (until 2006) to supply water to those above 100 000 population, the BoP for populations between 3.000 and 100.000 and the Director of Rural Affairs for populations smaller than 3.000, on request from municipalities. In 2006, an amendment to the Law No. 1053 annulled the population criteria, thus enhancing the powers of the DSİ.

⁷⁷² DSİ does not require any licence for surface water abstractions in populations smaller than 100.000, because there is no legislation authorizing the DSİ on this issue. Furthermore, according to the Act No. 4759 (1945) on Bank of Provinces, the major responsible organization (“idare” in Turkish) is Bank of Provinces (see Article 19.c.). Also see Act No. 1053 (1968).

purposes. The DSİ General Directorate carries out its tasks pursuant to Acts No. 6200, 167, and 1053.

Act No. 6200 on the Establishment and Duties of the DSİ empowers DSİ to construct dams; build flood control facilities; equip land with irrigation facilities; reclaim swamps; generate hydroelectric power; improve rivers for navigation; carry out all kind of related surveys, project and construction; and execute the duties of operation, maintenance, and repair of the facilities. Act No. 6200 on Organization and Duties of the State Hydraulic Works empowers the DSİ to coordinate water use at the national level.⁷⁷³ It was adopted in Parliament on 18 December 1953 and was published in Official Gazette on 25 December 1953⁷⁷⁴. According to Article 59, the Act becomes valid beginning from 28 February 1954.

Article 1 of the Act no.6200 states the basic purpose of the establishment of the DSİ: “in order to prevent the damages of, and to multi-dimensionally benefit from surface and groundwaters”. DSİ was first established an institution under the Ministry of Public Works (“Bayındırlık Bakanlığı” in Turkish). Article 2 provides the long list of duties and powers of the DSİ. According to Article 2, DSİ annually prepares “three-year plans”, and, following the approval of the Ministry of Public Works, DSİ implements it.

Act No. 167 enacted on 16 December 1960 on Groundwater empowers DSİ to conduct surveys concerning groundwater and drill deep wells or have them drilled; transfer or lease deep wells; protect and record groundwater; and grant licenses for survey, use, rehabilitation and modification of deep wells.

Act No. 1053 enacted on 03 July 1968 on Domestic and Industrial Water Supply to Ankara, İstanbul and cities with populations over 100.000 empowers DSİ to

⁷⁷³ Dursun Özbay, *op. cit.*, pp. 38-39.

⁷⁷⁴ Official Gazette No. 8592.

construct dams and transmission lines; construct water treatment plants; and build water storage facilities.

As stated above, ultimate objectives of DSI are to enhance irrigated agriculture, to generate hydroelectric energy, to supply water to large cities for domestic and industrial use, and to take measures against floods. To achieve these objectives, DSI develops projects and implements them via either its own staff or outsourcing through utilization of following activities: Basic investigations and surveys, gauging of stream-flow and groundwater level, soil analyses and classifications, agricultural economy analyses, geological, hydraulic, geotechnical, and geophysical surveys, water quality analyses, hydraulic structures modelling, physical and chemical analyses of construction materials, survey and planning for river basin development, master plan and feasibility studies, design of hydraulic structures (dams, hydroelectric power plants, irrigation and drainage systems, water treatment plants, flood control structures, etc.), where necessary, execution of land expropriation as well as preparation of resettlement action plans for people affected by dam constructions , preparation of environmental impact assessment (EIA) reports, preparation of proposals for inclusion of projects in the investment program, preparation of contract documents and implementation of bidding for the works to be contracted out to judicial persons, supervision of constructions, transfer of hydraulic structures to the agencies concerned⁷⁷⁵, operation and maintenance of the facilities which are not transferred, providing of necessary machinery and equipment in order to implement the above works.

Administratively, the DSI General Directorate is a three-tiered organization. Its top management level is the General Directorate in Ankara. The secondary management level comprises of 13 departments. There are also other auxiliary units such as the Foreign Relations Office and the Civil Defense Office. The third management level

⁷⁷⁵ HEPPs to the electricity authority, namely Electricity Generation Co. (“Elektrik Üretim Anonim Şirketi”, Turkish acronym “EÜAŞ”), water treatment plants to the municipalities, and irrigation facilities to the irrigation management organizations (IMOs).

comprises 26 Regional Directorates (see below), which are dispersed throughout Turkey and which execute their work on behalf of the DSİ General Director according to annual and 5-year development plans as well as investment programs. DSİ employs around 23,000 personnel⁷⁷⁶, 6% whom are administrative staff, 16% are technical staff, 77% are manual workers, and 1% is other personnel.

The main financial resources of DSİ come from the national budget. For a long time, DSİ's investment budget had amounted to roughly 1/3 of the state investment budget. While the state investment budget was determined as 14,28 billion YTL in 2005, the DSİ investment budget was set at as 2.63 billion YTL (19%). Examination of past investment figures of public institutions in Turkey, reveals that the share of DSİ has decreased from 33.3% to 19%. The DSİ budget adds up 3.79 billion YTL, together with current and transfer allocations.

Since its establishment in 1954, DSİ has made investments of US\$ 35,4 billion, and the total benefit from these projects realized by DSİ in the sectors of energy, agriculture, services, and the environment is estimated as US\$ 97,7 billion. These projects have made a more than two fold contribution to the national economy when considering their investment costs. In this regard, DSİ's contribution to the economy of the country is well established.

5.3.5.a. DSİ and River Basin Approach

DSİ was said to be established to deal with the 25 river basins in Turkey with regards to surface waters. DSİ's Regional Directorate Generals (DGs) are units responsible for water management issues within their boundaries. However, the actual implementation of water management that DSİ has conducted so far could not be easily named as river basin management. This is because of two reasons:

⁷⁷⁶ The number of personnel has been decreasing steadily (Doğan Altınbilek, former Director General of DSİ, personal interview, Ankara, May 2011).

First, the boundaries of the DSİ DGs correspond not with the river basins, but with provincial boundaries. Furthermore, when we investigate the historical trajectories of DGs, it is evident that the prevailing political priorities of the governments always defined the destinies of the DGs and their geographical boundaries, and eventually numerous changes occurred in DGs boundaries.⁷⁷⁷ In this framework, the geographical mandates of DSİ DGs do not correspond to river basin zones. This is also related with, in broader terms, the governmental priorities with respect to realization of water resources projects. These priorities set the timeline of establishment of DGs. The establishment of DG in Artvin, for instance, basically corresponds to the period when Eastern Black Sea water resources projects have been included in work programs. Hence, the dates of establishment of DGs vary tremendously. For instance, Konya DG was founded in 1954, whereas Antalya was founded in 1960 (DG 13), Isparta in 1968 (DG 18), and Artvin in as recent as 1998 (DG 26). As it can be discerned from the numbers of the DGs and their date of establishment, the numbering of the DGs reveals this historical path. Greater the number, newer is the DGs establishment.

Second, DSİ is *not* an institution responsible for all aspects of water management. To put it in another way, DSİ is not authorized with a mandate to manage waters as a single authority on the basis of “river basin management” approach. Despite this, DSİ has numerous powers in various aspects of water management. DSİ’s duties basically include construction of dams, regulators; management of waters in dams and reservoirs (e.g. release of waters from dams); groundwater management; and flood control. Additionally, all water allocations (all surface and groundwaters, including waters to be used by HEPs) are subject to be approved by DSİ.⁷⁷⁸ DSİ also provides consultancy services municipalities and villages particularly regarding occasions of floods. DSİ has also duties regarding the issues of resettlement,

⁷⁷⁷ Personal Interview with Nedim Yeşil (DSİ, Investigation and Planning Department), Şanlıurfa, December 2010.

⁷⁷⁸ Sadettin Malkaralı, Investigation and Planning Branch Manager, DG XI, DSİ, Edirne, personal interview, Edirne, October 2010.

volumetric and meteorological surveys, soil classification, quality monitoring, and operation and maintenance of small scale irrigation systems which are not transferred to users. Water prices set by irrigation associations are to be approved by DSİ. DSİ also has a say in preparation processes of “development plans” (“imar planı” in Turkish)⁷⁷⁹. These roles indicate that DSİ appears to be a central organization in water management in Turkey.

Nevertheless, the legal framework which draws the boundaries of mandates and competences of relevant organizations necessitates a continuous cooperation and coordination among the responsible organizations. In this framework, most of DSİ’s decisions are –presumably- to be taken in cooperation with some other organization(s). For instance, criteria for re-use of treated waste waters in irrigation are determined by a commission composed of relevant Provincial Directorates of MoEF, MARA and Regional Directorate of DSİ⁷⁸⁰. Another example would be that DSİ has to get approval from State Planning Organization (SPO) for carrying out large scale hydraulic works⁷⁸¹. A further example could be given from the management of groundwaters. With the Act No. 167, DSİ has been given an exclusive mandate for groundwater allocations and controls. However, a cooperative framework is also envisaged by the Act. The “water need document”, which is an essential part of the application procedures for groundwater uses, has to be approved

⁷⁷⁹ Special Provincial Administrations are responsible for development plans out of municipal boundaries. SPAs consult DSİ and MARA with regards to the convenience of development plans.

⁷⁸⁰ Provincial Governor is the head of this Commission. This Commission takes its decision in accordance with the Communiqué on Technical Methods of Water Pollution Control By-law (“Su Kirliliği Kontrol Yönetmeliği Teknik Usuller Tebliği” in Turkish). Article 28, Water Pollution Control By-law.

⁷⁸¹ Large scale works are those having a height of 30 meters or more. For small scale works, DSİ is the single authority to take decision (Bahattin Yılmaz, Branch Manager, Planning Branch, DG XI, DSİ, Edirne, personal interview, October 2010).

either by the Provincial Directorates of Ministry of Industry and Trade or Provincial Directorates of MARA, prior to the DSI's approval.⁷⁸²

Apart from the necessity of cooperation, there is a second limitation to DSI's role as an organization for "river basin management". This limitation, which again emanates from the complex legal framework, is related with the fact that some of significant water management tasks are to be carried out by other organizations than the DSI. This is particularly applicable to quality management. To illustrate, discharges from industrial plants are controlled by Provincial Directorates of MoEF⁷⁸³. Similarly, Provincial Directorates of Ministry of Health are responsible from controlling the health related quality elements of water in areas of rice cultivation.⁷⁸⁴ With regards to the Water Pollution Control By-law, DSI has water quality control responsibility only pertaining to groundwaters. Also, DSI has no authority to enforce. DSI notifies the relevant Provincial Directorate of MoEF for enforcement and possible sanctioning regarding groundwater pollutions. In light of these, it could be argued that although DSI remains to be central (major) organization for water management, it is not organized as an authority responsible from "river basin management". Thus, "water management" related activities in Turkey are, at best fractionalized among a number of organizations. This fact remains at odds with the principles of "combined approach" and "river basin management" of the WFD. Therefore, DSI's mode of operation could not be classified as "river basin management", in strict sense.

5.3.6. General Directorate of Rural Services (abolished in 2005)

In 1960, Law No. 7457 established the General Directorate for Soil and Water. In 1985, this institution was reconstituted as the General Directorate for Rural Services

⁷⁸² Ercüment İmmet, Branch Manager, Groundwaters and Geotechnic Branch, DG XI, DSI, Edirne, personal interview, Edirne, October 2010.

⁷⁸³ Before MoEF was established, this task had been performed by DSI.

⁷⁸⁴ This is stipulated by the Law on Rice Cultivation (Gökhan Köse, Assistant Branch Manager, Operation and Maintenance Branch, DG XI, DSI, Edirne, personal interview, Edirne, October 2010).

(GDRS) under the Ministry of Agriculture, Forestry and Rural Affairs. The General Directorate of Rural Affairs was founded through the integration of three institutions: General Directorates of YSE (Yol-Su-Elektrik), TOPRAK-SU and TOPRAK-İSKAN.⁷⁸⁵

As State Planning Organization observed, when the General Directorate of Soil and Water Works was closed, some of its major tasks such as surveys and inventory works on soil-water relations were not clearly transferred to the new unit, GDRS. Thus, significant data and information related to soil surveys on national scale such as soil type and classification (land capability and fertility), depth, slopes, organic materials, erosion characteristics have not been studied and updated since the late 1970s⁷⁸⁶.

Main duties and responsibilities of the GDRS with regards to water were listed in the Law as follows:

- In accordance with the principles and policies enshrined in development plans and programs, to efficiently use, protect and develop soil and water resources.
- To construct, maintain, improve and operate water and sewage facilities of villages and sub-village units⁷⁸⁷.
- To construct, improve facilities for healthy and sufficient drinking and use water to villages, sub-village units and military garrisons
- To provide services for on-farm irrigation, i.e. construction of canals, on-farm irrigation and drainage facilities.

⁷⁸⁵ Act No. 3202 “Law on the Organization and Duties of the General Directorate for Rural Affairs”, Official Gazette 18761, 22.05.1985.

⁷⁸⁶ Republic of Turkey, State Planning Organization, *op. cit.*, “Özel İhtisas Komisyonu...”, pp. 7-13.

⁷⁸⁷ These include “oba”, “mezra”, and “kom” type units.

-To construct and operate irrigation facilities up to the 500 liters per second. (Important note: Dam construction and hydropower producing regulators are excluded from this responsibility. For waters with a volume more than 500 liters per second, the approval of DSI shall be sought.)

-To electrify villages via benefitting from small waters.⁷⁸⁸

To summarize, whereas large-scale public irrigation schemes were constructed and managed by the DSI, the GDRS was responsible for all on-farm development activities, i.e. land leveling of agricultural lands; improving small, scattered land parcels owned by the farmers by land consolidation activities; construction of field canals as well as carrying out functions such as construction of rural transport networks and on-farm roads, on-farm irrigation and surface and tile drainage infrastructure. The agency was concerned with soil conservation; the construction of small dams/reservoirs, and the construction of minor surface and groundwater irrigation schemes (with a capacity of less than 500 liter/sec) which are turned over to irrigation management organizations and groundwater cooperatives respectively. Since 1964, first the General Directorate for Soil and Water, and then the GDRS were also responsible for supplying domestic water to villages and rural households either from surface water or ground water, regardless of geographic location.

Established as an institution attached to the Ministry of Agriculture and Rural Affairs, the GDRS was connected to the Prime Minister's Office on 7 July 1993 with a Presidential Decision numbered 39-08/0-1-93-335. From 1993 onwards, the GDRS operated under the Prime Minister's Office.

The debate on the performance of the GDRS's dates back to early 2000s. On February 28, 2002 the Government of the time demanded authorization from the

⁷⁸⁸ Act No. 3202, Article 2.

Parliament to abolish GDRS, as part of an economic program.⁷⁸⁹ Finally, in 2005, as part of the Government's decentralization and cost-cutting program, the GDRS was abolished. Upon closure, GDRS's personnel, cadres, equipments, vehicles and other belongings at the headquarters were transferred to the Ministry of Agriculture and Rural Affairs (MARA). As previously stated, GDRS research stations were also transferred to MARA. Its personnel and belongings at the provincial level, on the other hand, were transferred to the metropolitan municipalities in İstanbul and Kocaeli; and to the Special Provincial Administrations (SPA) ("İl Özel İdareleri" in Turkish)⁷⁹⁰ within local provincial governments in all other provinces.⁷⁹¹

5.3.7. Special Provincial Administrations

The earliest provincial administration legislation dates back to 1913. In 1987, a new law was enacted. With the latest SPA Act, Act No. 5302, enacted in 2005 (which is currently in effect), 81 SPAs are established in Turkey; one for each province.⁷⁹² The SPAs cover areas that fall neither within municipal nor village boundaries. The Special Provincial Administrations (SPAs) ("İl Özel İdareleri" in Turkish) are public entities with administrative and financial autonomy, which is set up to meet the local and common needs of the people living in the province. SPAs decision-making body (General Provincial Assembly, "İl Genel Meclisi" in Turkish) is elected and made up

⁷⁸⁹ <http://www.ntvmsnbc.com>, accessed on 29.02.2008.

⁷⁹⁰ With the Act No. 5302, enacted in 2005, 81 SPAs are established in the country; one for each province. The SPAs cover areas that fall neither within municipal nor village boundaries. The SPAs are the public entities enjoying administrative and financial autonomy, which is set up to meet the local and common needs of the people dwelling in the province, and whose decision-making branch (General Provincial Assembly) is elected and made up by electors. They are composed of the general provincial assembly, the provincial council and the governor. The Governor (chief executive of the province and principal agent of the central government) is the chief of the Special Provincial Administration and the representative of its legal personality.

⁷⁹¹ Act No. 5286 on Abolition of the General Directorate of Rural Affairs, Official Gazette No. 25710, 21.01.2005.

⁷⁹² Official Gazette No.25745, 4.3.2005.

by electors. They are composed of the General Provincial Assembly, the Provincial Council and the Governor. The Governor (chief executive of the province and principal agent of the central government) is the chief of the Special Provincial Administration representing of its legal personality.

After the closure of the GDRS, beginning from 2005, SPAs have become responsible for all rural development tasks of the GDRS. Therefore, the role of SPAs in Turkey water management system has increased. However, performances of SPAs is criticized on the ground that they are not performing their duties on basin planning, erosion control, land consolidation and supervision and monitoring of the irrigation management organizations⁷⁹³. It is also asserted that SPAs have had difficulties in carrying out their rural services duties and responsibilities, since their priority has been the construction of rural roads and village water supplies, while on-farm development activities remain as secondary of significance.⁷⁹⁴ A nation-wide survey based study⁷⁹⁵, on the other hand, indicates that SPA authorities attach great significance to the accomplishment of duties related to agriculture and animal husbandry, for the development of their provinces.⁷⁹⁶ According to this study, the

⁷⁹³ İlhami Ünver, “Eleştirel Gözle 5403 Sayılı Toprak Koruma ve Arazi Kullanımı Kanunu”, published on 1.2.2010, available online at topraksuenerji.org/5403_sayili_toprak_koruma_ve_arazi_kullanimi_kanunu.pdf, accessed on 01.03.2011.

⁷⁹⁴ According to İlhami Ünver, activities which can easily be converted into votes (e.g. construction of Village House [“Köy Konağı” in Turkish])always appeared to be priority for relevant organizations, including the time of GDRS (İlhami Ünver, “Eleştirel Gözle 5403 Sayılı Toprak Koruma ve Arazi Kullanımı Kanunu”, published on 1.2.2010, available online at topraksuenerji.org/5403_sayili_toprak_koruma_ve_arazi_kullanimi_kanunu.pdf, accessed on 01.03.2011). Also see *Cumhuriyet* (daily national newspaper), Tarım Hayvancılık Eki (Agriculture and Animal Husbandry Supplement) 2007, p. 27.

⁷⁹⁵ This study based on a survey sent to 81 General Secretaries of SPA (one in each province), and selected 405 members of SPA Commission (“Encümen” in Turkish).

⁷⁹⁶ Agriculture and animal husbandry related activities appeared to be the number one answer to the question “For development of provinces, what should be the priority areas of work for SPAs?” (Kerem Karabulut, Dilek Polat and Hakan Bakkal, “Özel İdarelerin İl Ekonomileri İçindeki Yeri ve Önemi Üzerine Bir Uygulama”, in *İktisadi ve İdari Bilimler Dergisi*, Vol. 21, No. 2, June 2007, p. 88).

lack of funding appears to be one of the major reasons for insufficient functioning of SPAs, regardless of the kind of activity.⁷⁹⁷ The increased role for SPAs on the legal ground was not supported by a strengthened financial structure.⁷⁹⁸ Hence, this hinders SPAs performance in dealing with newly assigned tasks, despite the contrary desires of the SPA authorities.

As the abolishment of the GDRS is relatively a recent issue, there is very limited number of studies⁷⁹⁹ discussing the impact of the abolishment of the GDRS on the rural services. Nevertheless, there are several arguments which are raised by NGOs, Union of Chambers and international institutions like the World Bank⁸⁰⁰ as well as local experts. For instance, a number of scholars emphasized the fact that scientific studies on drainage problem has been continuously decreasing since the closure of the GDRS. Before the abolition of GDRS, a Drainage Survey Group (“Drenaj Arařtırmaları Grubu” in Turkish) within the structure of GDRS was conducting studies on determination of drainage standards and measurement of the performances of current drainage systems. This unit was abolished with the closure of GDRS.⁸⁰¹ It is a significant deficit in Turkish irrigation sector as approximately 3 million hectares area has drainage related problems, mainly due to improper irrigation.⁸⁰²

⁷⁹⁷ *Ibid.*, p. 90.

⁷⁹⁸ 1.12% of the General Budget are received by SPAs. (*Ibid.*, p. 91). Also see Ahmet Apan, “5302 Sayılı Yeni İl Özel İdaresi Kanunu Ne Getiriyor?” in *Belediye Dünyası*, Vol. 7, No. 5, May 2006, pp. 40-53.

⁷⁹⁹ An example of this is studies is a World Bank Report, which is produced following a series of visits by a World Bank team in 2006, stated: “the Council of the SPA was not interested in irrigation development, land consolidation or drainage; it is more interested in rural water supply and rural roads, and in urban development. The SPAs have been completing some of the existing irrigation and drainage projects but have not planned any further irrigation and drainage projects” (World Bank, *op. cit.*, p. 62).

⁸⁰⁰ See Ayşegül Kibaroglu and Argun Başkan, forthcoming in 2011, page not available.

⁸⁰¹ Rıza Kanber and Mustafa Ünlü, *op. cit.*

⁸⁰² *Ibid.*, p. 2.

From the broader perspective, replacing the GDRS with SPAs, i.e. decentralizing soil conservation and small-scale irrigation and water management is seen as contrary to the growing consensus on the idea that river basin planning and management approach is the most appropriate framework for water management.⁸⁰³

5.3.8. Bank of Provinces (“İller Bankası” in Turkish)

In order to finance municipalities’ public construction works, the “Municipalities Bank” was established with the Act No. 2301, in 1933. Municipalities Bank was the forerunner of the Bank of Provinces (“İller Bankası”, in Turkish). In 1945, taking on the responsibilities of Municipalities Bank, the Bank of Provinces was officially established with the Act No. 4759, under the then Ministry of Public Works and Resettlement with a mandate to allocate funds and loans to local governments (municipalities) irrespective of size, in the financing and construction of infrastructure for water supply (drinking water), sewerage and waste water treatment. In other words, the Bank of Provinces has responsibilities in the areas of planning, construction and financing of Urban Waste Water Treatment (UWWT) plants and drinking water treatment plants in municipalities.

The Bank of Provinces was originally designed to be a financing institution without the responsibility of implementing the projects. It also provides technical support to the local authorities. Within this context, the Bank of Provinces’ budget comes from the Municipalities Fund of the Bank, which ultimately comes from central government. However, there are some limitations on access to highly subsidized funding. These have led to delays or interruptions in the implementation of water services projects in the municipalities. Additionally, rapid population growth and influx of people from rural to urban areas as well as budgetary constraints have resulted in increase in debts of municipalities. Consequently, the option of reforming

⁸⁰³ Özden Bilen, *op. cit.*, “Türkiye’nin Su...”, p. 300.

the Bank to enable more efficient transfer of public funds to the municipalities has become a priority item for governments.⁸⁰⁴

As Çınar noted, a general look at the financial sources of the municipalities to undertake water supply and sewerage investments reveals that the role Bank of Provinces has been changed since the mid-1980s. Instead of the Bank of Provinces, the external financing institutions like World Bank, the German Bank for Reconstruction and Development, Asian Development Bank, Islamic Bank, Council of Europe, Japan Institute for Overseas Investment, the European Investment Bank, have, in time, become major financiers.⁸⁰⁵

However, in 2000s, the former role of the Bank of Provinces as the creditor for municipalities has been re-vitalized. This is mainly because of the fact that, while greater municipalities have completed their infrastructure works, smaller ones are still making investments in order to finalize their water services projects. Also, in the case of the Metropolitan Municipalities, levels of foreign credit use and municipality budget resources decreased from 2000 onward. The new policy of the central government to “minimize the use of foreign credits, and the completion of the projects of the Metropolitan Municipalities” could explain this change. The reliance of Bank of Provinces on foreign loans are likely to increase as the credit agreement signed between the Bank of Provinces and the World Bank within the framework of the “Municipality Services Project” states that “the Bank of Provinces is also likely to begin to rely on foreign credits in the near future just like the General Directorate of State Hydraulic Works”⁸⁰⁶

⁸⁰⁴ Tayfun Çınar, *op. cit.*, “Privatization of Urban...”, p. 354.

⁸⁰⁵ *Ibid.*, pp. 353-354.

⁸⁰⁶ Ayşegül Kibaroglu and Argun Başkan, *op. cit.* They contend that “[a] comparison of the debt structures of the Bank of Provinces and the General Directorate of State Hydraulic Works reveals that 25 to 50% of the General Directorate of State Hydraulic Works’ investments is financed through foreign credits whereas the Bank of Provinces uses its own financial resources.”, page not available. See Tayfun Çınar, “Türkiye’de İçmesuyu ve Kanalizasyon Hizmetleri: Yönetim ve Finansman”, in Tayfun Çınar and Hülya K. Özdiç (eds.), *op. cit.*, pp. 230-239.

A recent legislation, Act No. 6107⁸⁰⁷, which was adopted on February 8, 2011, brought significant changes to finance structure of the Bank of Provinces. The Law abolished the establishment law of the Bank of Provinces, namely Act No. 4759. Also, a new name for the Bank is determined: “İlbank”. According to this new Law, the Bank of Provinces has been transformed into an “incorporated company” (Co. Inc.) With the Act No. 6107, the financial contributions of municipalities are reduced to 2%⁸⁰⁸, and the financial contributions of SPAs are totally eliminated.⁸⁰⁹

While these changes could be seen as a positive stimulus for municipalities and SPAs, they could also be regarded as new budgetary limitations for the İlbank. Reducing the financial resources of İlbank could create pressures for searching for syndication loans from foreign sources, just like other banks in the market.

5.3.9. Electrical Power Resources Survey & Development Administration (“Elektrik İşleri Etüt İdaresi Genel Müdürlüğü” in Turkish, Turkish acronym: EİEİ)

EİEİ was founded in 1935 with the Act No. 2819.⁸¹⁰ The main duty of the institution is to conduct studies on hydraulic energy, wind energy, geothermal energy, biomass and other renewable energy resources, evaluate their feasibility, prepare model implementation projects, develop introductory pilot systems, and serve as an institution of survey, education, and awareness raising. Additionally, pursuant to Act No. 3096 which regulate construction of some of HEP (Hydro-Electrical Plant) projects, the EİEİ establishes, controls the operation, realizes the expropriation, and is responsible for the counseling work. Apart from Act No. 3096 HEPs, pursuant to Act No. 4628, legislation relevant to HEP projects, the EİEİ evaluates the proposed

⁸⁰⁷ Official Gazette No. 27840.

⁸⁰⁸ Previously, this was 2% of the municipalities’ revenues (Article 4).

⁸⁰⁹ Previously, this was 5% of the SPAs’ revenues.

⁸¹⁰ Official Gazette No. 3036.

projects. Finally, evaluations and surveys as requested by other public institutions are conducted by the EİEİ, too.

5.3.10. Municipalities

There are around 3200 municipalities in Turkey, 16 of which are metropolitan⁸¹¹. The municipalities are run by an elected mayor, an elected assembly and an elected council. The Act No. 5393 on Municipalities (2005) replaced the Municipalities Law of 1930. It assigns numerous powers and duties to municipalities⁸¹² such as the construction of urban water supply systems, sewerage systems, and wastewater treatment plants.

Municipalities usually prefer to combine water and urban transport services as a means of revenue gains and cross-subsidizing public services. In the non-metropolitan municipalities, the primary focus is usually on water supply. Services related to waste-water disposal and treatments are regarded as secondary. Çınar notes that disaggregating water supply and sewerage services under different management schemes is a hindrance in front of an integrated approach⁸¹³

Due to huge influx of migrants and high population increases in 1980s onwards, metropolitan areas have begun to witness serious sewerage problems. This has

⁸¹¹ By the Act No. 3030, dated 27.06.1984, Metropolitan Municipalities are established in Turkey. In 2004, Act No. 5216 on “Metropolitan Municipalities” superseded the Act No. 3030.

⁸¹² A municipality can be established in settlements having more than 5.000 inhabitants.

⁸¹³ Where the population is less than 10,000, the municipal “public works” department is responsible for water supply, which is financed from its own budget. In this model, water supply and sanitation services are categorized with other public services. In municipalities with a population of 10,000–50,000, it is common to have a directorate or ‘water office’ that is responsible for water supply. These offices do not have a separate legal entity. In municipalities with a population greater than 50,000, water supply is generally combined with other municipal services in a separate operating unit established by the municipal council as a legal entity. These service providers are specific organizations rather than autonomous commercial units, and they have budgets assigned to them. See Ayşegül Kibaroğlu and Argun Başkan, *op. cit.* and Tayfun Çınar, *op. cit.*, “Privatization of Urban...”, p. 351.

stimulated new organizational models in local water services in which water and waste-water management are grouped under single framework. The Act No. 2860, which created Istanbul Water and Sewerage Administration (İSKİ) in 1981, was the fire starter. From then on, this water and sewerage administration model was extended to cover other metropolitan municipalities, such as Ankara in 1987 and İzmir in 1989. Today there are 16 water and sewerage administrations within metropolitan municipalities. It should be noted that the responsibility of these administrations cover the water resources which the metropolitan area is benefitting from, regardless of the municipal borders.⁸¹⁴ The main motives for this type of structuring could be summarized as follows i.) to mobilize financial resources in economically developed metropolitans, ii.) to make water services administrations operate with a economic rationality and iii.) to increase efficiency in water and sewerage services.⁸¹⁵

These administrations are autonomous entities⁸¹⁶ with the responsibility for the planning, design, construction, and operation of all water supply and sewerage services in metropolitan areas. To struggle with increasing problems in water supply and sewerage services in metropolitan areas, these administrations (and the Municipalities) began to seek finances beyond the Bank of Provinces mechanism.

Although allocations from the national budget still are “the main financial source of the municipalities to provide water services, the municipalities are gradually getting more “soft loans” (state-to-state credits) or loans and/or credits from international financial agencies under the guarantee of the Turkish Treasury”⁸¹⁷. With regard to

⁸¹⁴ Ahmet Hamdi Sargın, “Ülkemizde Yeraltıları Mevzuatı ve AB Mevzuatına Uyumlaştırılma Süreci”, *TMMOB 2. Su Politikaları Kongresi Bildiriler Kitabı*, 21-23 March 2008, Ankara, p. 120.

⁸¹⁵ Özden Bilen, *op. cit.*, “Türkiye’nin Su...”, p. 292.

⁸¹⁶ At the beginning, İSKİ was independent of the İstanbul Municipality, but after the re-organization of the municipality as Metropolitan administration in 1984, the İSKİ has been subordinated to the İstanbul Metropolitan Municipality as a public entity with an independent budget. See Tayfun Çınar, *op. cit.*, “Privatization of Urban...”, p. 351.

⁸¹⁷ Ayşegül Kibaroğlu and Argun Başkan, *op. cit.*

use of foreign credits, two consequences worth mentioning: firstly, the debts of the municipalities and the service tariffs imposed on the final consumers rise; secondly, it stimulates privatization of water services and thus causes the institutional structures of the municipalities to change.⁸¹⁸ In this context, Çınar argues that one of the reasons for recent increase in privatization initiatives in water services in municipalities lies in these efforts of metropolitan municipalities and their autonomous water organizations in order to find foreign finances.⁸¹⁹

5.3.11. Irrigation Management Organizations

“Irrigation Management Organizations” (IMOs) is a generic term used for organizations operating on the principle of participatory irrigation management where a high level of farmer involvement, both directly and through selected representatives is present. The IMOs consist mainly of farmers and include such legal entities as (a) irrigation associations (“sulama birlikleri” in Turkish), (b) municipalities, (c) village authorities, (d) universities and (e) irrigation cooperatives with responsibility for irrigation management. Cooperatives and universities are generally managing smaller irrigation schemes.⁸²⁰

The most prevalent and important IMO category in Turkey is the Irrigation Associations (IAs), accounting for 90% of the area managed by IAs.⁸²¹ IAs, thus, are playing a major role in the Turkish irrigation sector.⁸²² Irrigation cooperatives follow

⁸¹⁸ World Bank has provided credits worth US\$1217.7 million in total to the projects in İstanbul, Ankara, İzmir, Bursa, Antalya, Çesme-Alaçatı. See Tayfun Çınar, *op. cit.*, “Türkiye’de İçmesuyu ...”, pp. 230-39.

⁸¹⁹ Tayfun Çınar, *op. cit.*, “Privatization of Urban...”, p. 354.

⁸²⁰ World Bank, *op. cit.*

⁸²¹ However, in some basins, irrigation cooperatives are widespread. One example for this is Ergene River Basin, in northwestern Turkey.

⁸²² For an analysis of IAs, see Ö. Ince, G. Demir and Öner Yorulmaz, “DSİ’ce Yürütülen Devir Çalışmalarının Kapsamı ve Nitelikleri”, 2. *Ulusal Sulama Kongresi*, 16-19 October 2003, Kuşadası, Aydın, pp. 378-388.

irrigation associations, accounting for 3.6 % of the total managed area.⁸²³ (See Table 8)

It was understood that “effective and productive irrigation can be provided with participation of the farmers in irrigation water management”. Towards this end, studies on farmer participation in the irrigation projects were conducted within the framework of First Five Year Development Plan (1963-1967)⁸²⁴. In this context, transfers of irrigation schemes to IAs have begun in early 1960s. However, until early 1990s the transfers remained limited. Until 1993, DSI was transferring only small and isolated irrigation networks. This policy of transferring small and isolated irrigation systems was based on the idea that it was difficult and uneconomical for DSI to manage this kind of irrigation systems.⁸²⁵

From 1993 onward, the transfers gained momentum, mainly because of two reasons. One reason is associated with influence of World Bank over DSI. Since 1993 World Bank authorities succeeded in persuading the DSI staff in benefits of the transfers through getting DSI personnel more exposed to Mexican experience of rapid transfers of irrigation systems.⁸²⁶ Thus, benefitting the experiences of Mexico as well as the US, DSI has been encouraged to accelerate the transfers of irrigation systems and widen its scope so as to cover large irrigation schemes along with the smaller and isolated ones.⁸²⁷ The second reason is associated with the perception of the Government that operation and management costs of irrigation systems have

⁸²³ Şerafettin Aşık, Halil Baki Ünal, Musa Avcı and Vedat Demir, “Structure, Management, Operation and Mechanization Possibilities of the Irrigation Systems in Turkey”, in *Agricultural Mechanization in Asia, Africa and Latin America*, Vol. 39, No. 1, Winter 2008, p. 35.

⁸²⁴ *Ibid.*

⁸²⁵ Republic of Turkey, Ministry of Energy and Natural Resources, General Directorate of State Hydraulic Works (DSI), *op. cit.*, p. 18.

⁸²⁶ *Ibid.*

⁸²⁷ *Ibid.*

been becoming unbearable and unsustainable.⁸²⁸ At that time, the cost-recovery rate⁸²⁹ of the irrigation systems under DSİ management was around 41%, which was regarded as “unsatisfactory”.⁸³⁰ The Government of the time was also supportive of privatization. The successful examples of transfers which produced satisfactory results in terms of operation and maintenance further encouraged Government for deciding in favor of accelerated transfers.⁸³¹ In summary, along with the external impact; poor-cost-recovery rates, policy of the government concerning the personnel, the need for improving the cost effectiveness of operation and maintenance services, and to promote the farmers’ participation on operation, maintenance and restoration services appeared to be decisive factors for the start of rapid transfers of irrigation systems to users.⁸³²

Table 9. Distribution of Transferred Irrigation Systems

Organization	Unit	Rate, %	Area, ha	Rate, %
Irrigation association	299	42.3	1,551,262	91.0
Village authority	214	30.3	34,238	2.0
Municipality	134	19.0	56,588	3.3
Cooperative	56	7.9	61,349	3.6
Other	4	0.6	1,038	0.1
Total	707	100.0	1,704,475	100.0

Source: Şerafettin Aşık, Halil Baki Ünal, Musa Avcı and Vedat Demir, “Structure, Management, Operation and Mechanization Possibilities of the Irrigation Systems in Turkey”, in *Agricultural Mechanization in Asia, Africa and Latin America*, Vol. 39, No. 1, Winter 2008, p. 35.

⁸²⁸ *Ibid.*

⁸²⁹ Rate of collection of water fees.

⁸³⁰ Şerafettin Aşık, et al., *op. cit.*

⁸³¹ Republic of Turkey, Ministry of Energy and Natural Resources, General Directorate of State Hydraulic Works (DSİ), *op. cit.*

⁸³² İbrahim Kütük and Feryal Saatçı, “Aşağı Seyhan ve Aşağı Ceyhan Ovalarındaki Sürdürülebilir Sulama Yönetiminin İncelenmesi”, paper presented at 5. *Dünya Su Forumu Bölgesel Hazırlık Süreci DSİ Yurtiçi Bölgesel Su Toplantıları*, 10-11 April 2008, Adana, p. 196.

In a setting summarized above, by late 1990s, most of the irrigation schemes formerly run by DSİ, were transferred to user organizations. Concerning former DSİ irrigations, two types of transfers are recognized. In the “full transfer” method, all the operational and maintenance activities are taken over by water user organizations through an agreement signed with the by the DSİ and water user organizations. Following the approval of the agreement by the Ministry, DSİ maintains its monitoring and evaluating roles (e.g. its role in controlling and approving the prices set by user organizations) with regards to operation and maintenance of the transferred irrigation system. In the second method, called “participation through joint management”, only limited responsibilities regarding operation and maintenance services are taken over by water users (in this transfer method, water users are named “Water User Groups”), again through an agreement signed by the DSİ and water users.⁸³³

IMOs have been constituted under the Local Government Associations Law No. 5355 or Act No. 1163, Law on Cooperatives. The need for a specific IMO Law, which could provide a single legal framework for IMOs, has long been elucidated. Apart from the need of a coherent and single piece of legislation, several issues intensified the need for such a new law. In this context, some operational problems continue to exist after the IMOs took over the operation and maintenance of irrigation systems. For instance, over-employment remains to be a significant problem. In 2007, 59% of total revenues collected by IMOs are paid out to personnel. This has been regarded as serious a shortcoming for a sustainable irrigation management, since benefit severances (“kıdem tazminatı” in Turkish) of IMO personnel will likely to cause financial difficulties in the near future. Besides, the rates of collection of water fees (“tahsilat oranı” in Turkish) in IMOs are usually low.

⁸³³ Out of DSİ framework, the irrigation schemes developed by GDRS (GDRS was abolished in 2005) are informally (without an agreement) transferred to water users. Note that these are rather small scale irrigation schemes aiming to serve one village or so.

Ultimately, these problems could result in substantial water price increases, particularly in small-scale irrigation organizations.⁸³⁴

The law had been prepared quite some time ago, but it has been lingering in the Prime Minister's Office for clearance for submission to Parliament. Finally, the specific legislation on IAs was adopted on 8 March 2011⁸³⁵. This law entails important new elements for the functioning of IAs which should be mentioned.

Firstly, IAs will be subject to the supervision of Court of Auditors ("Sayıştay" in Turkish). In addition to this, a crosswise control is also envisaged for the IAs. While administrative and fiscal control is to be conducted by the Provincial Governorates, administrative and technical aspects are to be supervised by the MoEF.⁸³⁶ This new control mechanism is designed because of problems of the past related with the lack of efficient control schemes for IAs.⁸³⁷

According to this Law, in order to promote membership to IAs, non-member water users within the boundaries of the relevant IA would become disadvantageous vis á vis members of the IAs, in two respects. First, non-members will have to pay up to four times of the amount that is paid by members of the IAs. Second, non-members will be bound by all decisions taken by the IAs.⁸³⁸

⁸³⁴ Osman Tekinel, "Participatory Approach in Planning and Management of Irrigation Schemes: Turkish Experiences on Participatory Irrigation", paper presented at *Advanced Short Course on Integrated Rural Water Management: Agricultural Water Demands, CIHEAM IAM-B*, 20 September - 2 October 1999, Adana, p. 212.

⁸³⁵ Law refers to the name "Irrigation Associations" ("Sulama Birlikleri" in Turkish) only.

⁸³⁶ As it seems, there is duplication in terms of administrative control. One may expect a resolution of this issue as the first rounds of controls begin, when a *modus operandi* is agreed among controlling organizations with regard to their mandates.

⁸³⁷ Justification of the Law ("Kanunun Gereçesi" in Turkish), Article 18.

⁸³⁸ Article 19.

Another significant change is that there will be single structure for irrigation management organizations. IMOs, which were previously established according to Act No. 5355, Local Government Associations Law (“Mahalli İdareler Kanunu” in Turkish) or according to Act No. 1163, Law on Cooperatives, will restructure them in accordance with the new Law.⁸³⁹ Previously, the responsible authority for controlling IAs which was established according to Act No. 5355 was the Ministry of Interior (on the condition that IAs boundaries cover more than one province territory). With the restructuring, this responsibility of the Ministry of Interior is, thus, abolished.

This law is significant as it establishes a single framework for IMOs and provides stricter control mechanisms which could enhance the functioning of IMOs. Therefore, it represents a contributing action towards lessening of fragmentation in water policy in Turkey. On the other hands, this law falls short of providing solutions to the financial problems experienced in IMOs. There are no innovative solutions with regards to the problems that high portions of budget are paid out to personnel, and that actual rates of water fee collections remains to be low, creating risks for insufficient maintenance of the systems and increases in water prices.

5.4. Conclusion

This Chapter provided a discussion on the major water related institutions in Turkey with a view to the basic requirements of the WFD. Within this framework, two types of institutions are defined. While “hard” institutions include water related institutions; “soft” institutions are defined as intangible but institutionalized patterns of governing practices.

As the discussion indicates there is a considerable gap between the prevailing soft water-related institutional arrangements in Turkey and those proposed by the WFD.

⁸³⁹ In one or two years time, respectively. If they are not able to harmonize with the new legislation, they will be closed down.

This gap comprises the main core of the WFD harmonization process that Turkey has been into since early 2000s. The institutional gap between Turkey's soft water institutions and institutional rules required by the WFD stands odd with the high level of improvement in Turkey in terms of transposition of the water related Directives. This is mainly because of the fact that institutional practices are less adaptive than legal documents. While changes in legislation could occur rapidly, changes in institutions occur incrementally. Contrary to what has been transposed into the national legislation, changes in actual patterns of practices in pricing, public participation, transboundary relations, monitoring, and river basin management are only slowly emerging. Therefore, the institutional differences between Turkish water management policy and WFD-proposed water management framework would comprise the "substantive" part of the required changes. However, this is not to argue that there have been no notable progressive steps toward WFD harmonization in terms of institutional transformation. Indeed, it is argued that there *are* indications (Twinning Projects' effects) for institutional change, yet the level of changes in soft institutions -hitherto- adds up to only "fine adjustments". This is defined as "gradual institutional change" that occurs through marginal adjustments. This type of change, according to North, is indeed the major way by which societies and economies have evolved. Instead of radical changes like conquest and revolution which usually do not have power to alter the institutional framework within the society; incremental changes which are initiated by organizational gains after acquiring skills that enhance their objectives, have potential to transform the society. As a consequence of incremental changes in institutions, organizations begin to follow certain paths resulting in "path dependence"⁸⁴⁰. Therefore, the moderate steps towards realization of WFD objectives should not be underestimated.

⁸⁴⁰ A central concept used in "historical institutionalism". According to this idea, once actors have followed a particular path for a considerable period of time, it becomes very difficult for them to adopt a new way. Historical institutionalism provides an understanding of the outcomes via integrating "historicity" and "institutions" into a single framework of analysis.

On the side of hard institutions, on the other hand, a more dynamic setting is apparent. In time, new actors are established, mandates of existing actors are modified. Cumulatively, one can recognize the “specialization” trend in organizational setting. According to this trend, issues of water management have continuously began to be handled by greater number of organizations with narrower mandates. The organizational setting, in this sense, demonstrates a highly adaptive environment. From this, further changes in hard institutions’s structures might be expected during further stages of WFD implementation. It should also be noted that, this trend of specialization goes hand in hand with the rising importance of some water management issues, such as monitoring, public participation, etc.

CHAPTER 6

Water Management in Turkey: Change and Continuities in Policy Networks

6.1. Introduction

This chapter will present the origins and transformation of policy networks in water management policy of Turkey. Firstly the basic tenets of the concept of “policy network” will be restated. Next, its relevance to the subject of the dissertation will be emphasized and the adopted methodology will be presented. Thirdly, the chapter will focus on the formation and evolution of water management policy networks in Turkey. In the final section of the chapter, main conclusions will be summarized.

The term ‘network’ is frequently used to describe clusters of different kinds of actor who are linked together in political, social or economic life. Network concept is particularly significant with its emphasis on interdependence instead of hierarchy and independence. Within this context, “linkages between organizations”, rather than “organizations themselves”, have become the area of focus for a growing number of social scientists.⁸⁴¹ Network analysis is utilized to examine the structure of relationships between people and social entities, such as groups, organizations, nation states, web sites, scholarly publications, etc.

Precursors of networks analysis dates back to 1800s: Émile Durkheim and Ferdinand Tönnies are among first scholars indirectly focused on network approach. According to Tönnies, social groups can exist via personal and direct social ties that connect individuals who share some values (“*gemeinschaft*”), or with rather impersonal,

⁸⁴¹ John Peterson, “Policy Networks”, in *Reihe Politikwissenschaft, Political Science Series*, Institute for Advanced Studies, Vienna, 2003, p. 1.

formal, and instrumental social linkages (“*gesellschaft*”).⁸⁴² Durkheim presents a non-individualistic explanation of social facts arguing that social phenomena arise when interacting individuals constitute a reality that can no longer be accounted for in terms of the properties of individual actors.⁸⁴³ He distinguished between a traditional society, i.e. "mechanical solidarity" and "organic solidarity". The former prevails when individual differences are minimized, while the latter develops out of cooperation between differentiated individuals with independent roles. Since the 1970s, the empirical study of networks has played a central role in social science, and many of the mathematical and statistical tools used for studying networks have been first developed in sociology. Although the use and the understanding of the network concept varies greatly, a lowest common denominator in the understanding of a policy network can be seen in the definition of a network as a set of actors who are linked by relatively stable relationships of a non-hierarchical and interdependent nature.⁸⁴⁴

Policy problems essentially entail “complex political, economic and technical task and resource interdependencies”. Around policy problems, so called “policy communities” form.⁸⁴⁵ Within these policy communities, a number of actors participate in decision-making processes. In broad terms, the manners in which actors interact create different patterns of interrelationships, namely “policy networks.” Understanding these different patterns enable one to make analyses on the actors’ positions in a given policy network and changes in them.

“Policy networks” concept is relevant to the study of policy decisions in a state organization, because of the fact that it enable one to go beyond the explanations of

⁸⁴² Ferdinand Tönnies, *Community and Civil Society*, Cambridge University Press, Cambridge, 2001.

⁸⁴³ Emilé Durkheim, *The Division of Labor in Society*, The Free Press, Glencoe, 1997.

⁸⁴⁴ Patrick Kenis and Jörg Raab, “Wanted: A Good Network Theory of Policy Making”, Draft Paper prepared for the *7th National Public Management Conference*, Washington D.C., October 9-10, 2003, p. 11.

⁸⁴⁵ William D. Coleman and Anthony Perl, “Internationalized Policy Environments and Policy Network Analysis”, in *Political Studies*, Vol. 47, 1999, p. 695.

the “horizontal coordination”, where representatives of public organizations simply discuss and reach a decision on a given policy area. In this respect, policy network approach reflects better the ever-changing relationship between the state and society. Instead of a policy emanating from a central authority, according to this changed relationship, policy making today denotes a complex process involving composed of a range of public, as well as private actors.

Therefore, as Börzel demonstrated, “[u]nlike other theories which share a state-centric conception of governance based on a national or supranational authority for hierarchical co-ordination in public policy-making, the concept of policy network is able to conceptualize this emerging form of 'governance without government' ”⁸⁴⁶. Yet, the relevance of policy networks approach is not confined solely to the settings where authority is shared between public and private actors. So, policy network framework is also applicable to the cases where public authorities dominate the policy-making processes. As Dennis Kavanagh argued, “[P]olicy networks provide a mechanism for assessing various conflicts within state institutionson a particular policy area....”, and “the network approach argues for the need to disaggregate (or breakdown) policy analysis across different functions in order to provide a more satisfactory understanding of state action”.⁸⁴⁷ Within this context, considering the fact that the prominence of public authorities’ role in policy networks prevailing in Turkey’s water management policy is well recognized; the approach of policy networks has an explanatory power with regards to changes in the web of interrelationships that these public authorities comprise.

⁸⁴⁶ Tanja A. Börzel, *op. cit.*, p. 10.

⁸⁴⁷ David Richards, “Pressure Groups and Policy Networks”, in Dennis Kavanagh, David Richards, Andrew Geddes and Martin Smith, *British Politics*, 5th edn., Oxford University Press, Oxford, 2006, pp. 417-440, also available online at http://www.oup.com/uk/orc/bin/9780199269792/kavanagh_chap21.pdf, accessed on 03.07.2011.

The significance and utility of policy networks mainly emanates from the fact that it puts emphasis on the “process” and “relation” aspects of the policy-making, instead of actor-specific, or output-based explanations. Therefore, it sheds light on the nature of the setting where decisions are taken. As reinforcing this relevance further, this dissertation adopts a methodology through which policy networks in Turkey’s water management are quantified and then, visualized. In this way, unlike many studies discussing the policy networks on the abstract level, the major approach adopted in this chapter appears to become a more “concrete” discussion.

6.2. Methodology

The chapter adopts a methodology of visualization for analyzing the policy networks in water management policy in Turkey. In order to visualize the networks which comprise actors taking part in water management policy, provision of relevant data is required. As policy networks are comprised numerous actors involving in decision-making processes around a common policy area, then the data needed in this case, for visualization of policy networks, will basically consist of actors and their respective roles in making the water management policy in Turkey. The correctness of this data is confirmed by competent and knowledgeable experts, such as DSİ officials and water management policy related Ministry of Environment and Forestry personnel.⁸⁴⁸ Also, insights from a number of interviews are used to check the correctness of the data.⁸⁴⁹

In this context, decomposing water management policy processes into actors and the functions they perform, Microsoft Excel spreadsheets are used to present the networks that these actors and functions they perform.

⁸⁴⁸ For instance, Ayla Efeoğlu and Nedim Yeşil from DSİ (Ankara, December 2010), and Nermin Çiçek (Ankara, April 2010) from MoEF.

⁸⁴⁹ Particular contribution has come from Doğan Altınbilek, former Director General of DSİ, personal interview, May 2011.

As to the set of functions, a typology was needed to be utilized. All adopted legislations mention responsible institutions from specific aspects of water management. Yet, the typology of functions adopted in legal texts is not consistent as laws do not systematically approach to the tasks. For most of the cases, depending upon the characteristics of the time of adoption (composition of Commissions preparing the legislation, orientation and priorities of the government party which basically drafts the law) legal texts differ in terms of name and meaning of the tasks. Not only legal texts but also official documents also lack a clear and complete classification of functions to be done by the actors. Only significant separation was apparent between construction and monitoring tasks. Hence, it is impossible to create a structured set of functions with solely referring to legislations. However, there is a need for a set of functions which could be tested against all organizations/actors in the network at the same time with minimal incoherence. This kind of a set of functions was developed by a pilot project which aimed drafting a River Basin Management Plan for Büyük Menderes River Basin. So, in order to adopt a single, plausible and across the board set of functions which could be used for all actors involved, MATRA Report is being used.⁸⁵⁰

This MATRA Report lists all tasks to be done in order to reach main objective of the WFD and its daughter Directives (especially Urban Waste Water Directive and Dangerous Substances Directive). Since WFD does not deal extensively and directly with construction and operation of existing water infrastructures such as dams irrigation systems, or hydro plants, and since these are two very important

⁸⁵⁰ A pilot project called Büyük Menderes River Basin Management Plan started in 2001 with an agreement signed between the Government of the Netherlands and Turkish Government to implement WFD (Water Framework Directive) in Turkey in the framework of MATRA program aiming at supporting the European Union Candidate Countries from the technical point of view and setting up good relations with these countries. The project is completed in 2005. MATRA Report out of this project defines a roadmap for an integrated river basin management and identifies a program of measures in order to reach “good status” for the water bodies under discussion. This program of measures will be the backbone of implementation of the WFD, not only in Büyük Menderes but also in all 25 river basins on Turkey. This report is acknowledged by DSİ and by other official authorities.

dimensions of Turkish water management tasks, and “construction of the water related infrastructure” and “operation and maintenance of the water related infrastructure” have been added to the list of functions. This addition is also necessary as MATRA criteria do not handle what has been done so far, while this study discusses Turkish water management in course of time.

In conclusion, the set of functions adopted in this study include the following: monitoring and evaluation, waste disposal, agricultural measures, erosion and flood control, geothermal waters, coastal and transitional waters, pricing of water, legal and institutional arrangements at regional (river basin) scale, construction of water related infrastructure and operation and maintenance of water related infrastructure.

The network created relying on these data and method is demonstrated as a series of excel matrices composed of rows corresponding to actors and their involvement of certain tasks, and columns corresponding to functions and which actors have responsibilities over these functions. When an actor is responsible from a task, then a ‘1’ (one) is put in the corresponding/intersecting cell. If an actor is not responsible from that task than a ‘0’ (zero) is put in the corresponding cell. When an actor is not existent for a specific decade; but will be existent in upcoming decade(s), or was existent in preceding decade(s), then, only the name of the actor is written, and all other cells in that row were remained blank for that specific decade when that actor was not existent. A sample Microsoft Excel table which is presented through this way is presented below⁸⁵¹ :

⁸⁵¹ This table is adaptated to the space available. Not all functions and actors are displayed.

Table 10. Sample Excel Table of Policy Networks

	Planning & organization	Monitoring & evaluation	Waste Disposal	Agricultural Measures (groundwater permissions etc.)	Erosion & Flood Control	Geo-thermal Waters
DSİ (State Hydraulic Works)	1	1	1	1	1	0
Government	1	0	0	0	0	0
Groundwater Coops.						

The data used in preparation of the tables are confirmed by experts of the water management policy in Turkey. Following the confirmation of this data, a software program called “UCINET” is utilized. This software enables one to transform MS Excel spreadsheets -prepared as above- into meaningful and comprehensible visualizations of networks. In transforming network tables into visualizations, the auxiliary software “Netdraw” is utilized. Netdraw is selected because it provided the most easy and convenient as well as user-friendly interface. The visualizations of policy networks provide insights about changes in weights of functions and actors in course of time.

6.3. Evolution of Water Management Policy Networks in Turkey

Despite several earlier legislation and realization of a number of individual projects, the systematic development of water works has started in early 1950s. Establishment of DSİ in 1954 marked the beginning of institutionalization of water resources development. Concomitant to increasing number of water projects, practices of water management -contributing to the formation of a recognizable water management

policy- have evolved. Construction of dams, regulators, canals aimed at, among others, increasing the irrigated areas and continuous supply of water, has resulted in development of a set of patterned practices. In this respect, sustained water supply, water pricing, resettlement matters, public participation, degradation of water quality have all become salient water management policy issues. From 1950s to 2000s and beyond, water management policy networks in Turkey have experienced a number of changes in terms of its actors and interactions among them.

Analyzing the interactions among the major actors in water management policy network through utilization of visualization software would make the changes occurring in the legal setting and institutions more visible.

In order to analyze the changes in networks of Turkey's water management, there appears a need to define time periods to analyze though it is a tough job to divide the timeline of water management with clear separators. Thus, any chosen time separation will be inherently arbitrary. For representational simplicity, decades are used as time frames in the dissertation.

Some historical evidence from a broader viewpoint supports this separation. There are milestones in Turkish political history that makes decades separation more meaningful. Turkey was governed by a single party government, presided by same Prime Minister between 1950 and 1960. Following a military intervention in 1960, Turkey resumed its democratic path until 1971, until when another military intervention occurred. 1970s was a decade of coalitions which was ended by another military intervention in 1980. Most of 1980s Turkey was governed by as single party government and 1990s was again a decade of coalitions. Single party governments were in power for most of 2000s. Given this historical background; it is common among scholars to classify and analyze recent Turkish political history in terms of decades.

Beside this general overview of Turkish political history, it is recognized that the orientation and scopes of legal texts reflect the time of adoption. Thus, for instance, we could see more bold moves in terms of laws and by-laws in single party eras. We

could expect more gradual changes from coalition governments as they are bound to reach compromises among different sets of interests of political parties. With this token, legal texts regarding the water management are no exception. Many fundamental changes occurred during decades when a single party government was in power.

In short, it is obvious that dividing a history into units does not always perfectly fit to analytical tools, however, concerning the Turkish case, taking decades as main time frames to draw network tables makes sense in light of broader level changes in Turkish political setting, which is ultimately linked to water management in the country. All in all, some kind of a unit of analysis has to be selected at least for the sake of convenience.

In this framework, tables and corresponding diagrams are prepared. In order to emphasize the level of change, the 1950s and 2000s' network diagrams will be presented in the disseration. The decade of 1950s was selected as the starting point because of the fact that it was 1950s when real systematic works of water resources development and concomitant legislation (such as Act No. 6200, Act No. 167) were initiated. 1950s' water management policy network is presented in form of a diagram below⁸⁵².

⁸⁵² Note that the Ministry of Agriculture was founded in 1924. It has been reorganized as Ministry of Agriculture and Rural Affairs (MARA) in 1985. For the convenience, the MARA name is used. State Planning Organization was founded in 1960.

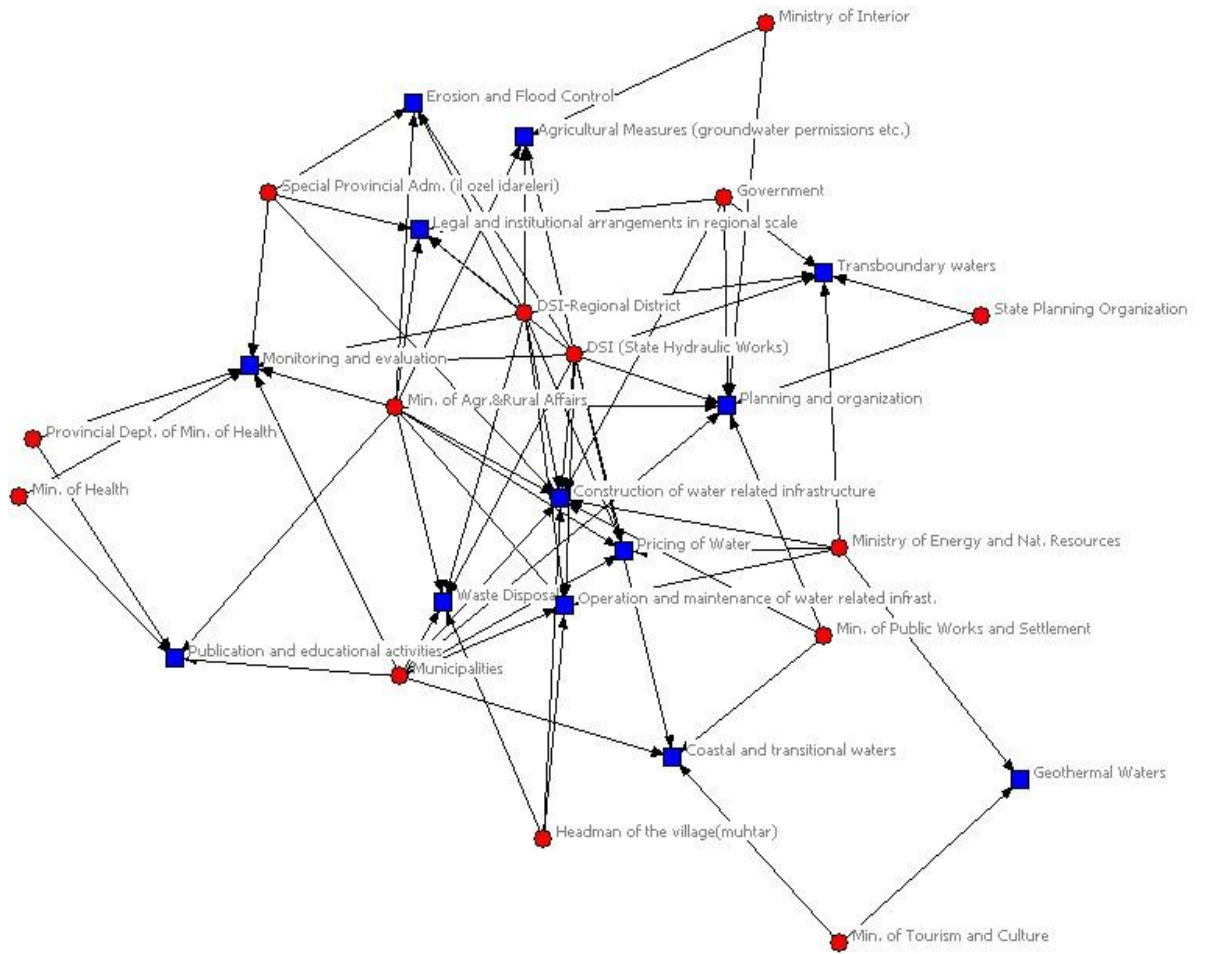


Figure 4. 1950s Water Management Policy Network

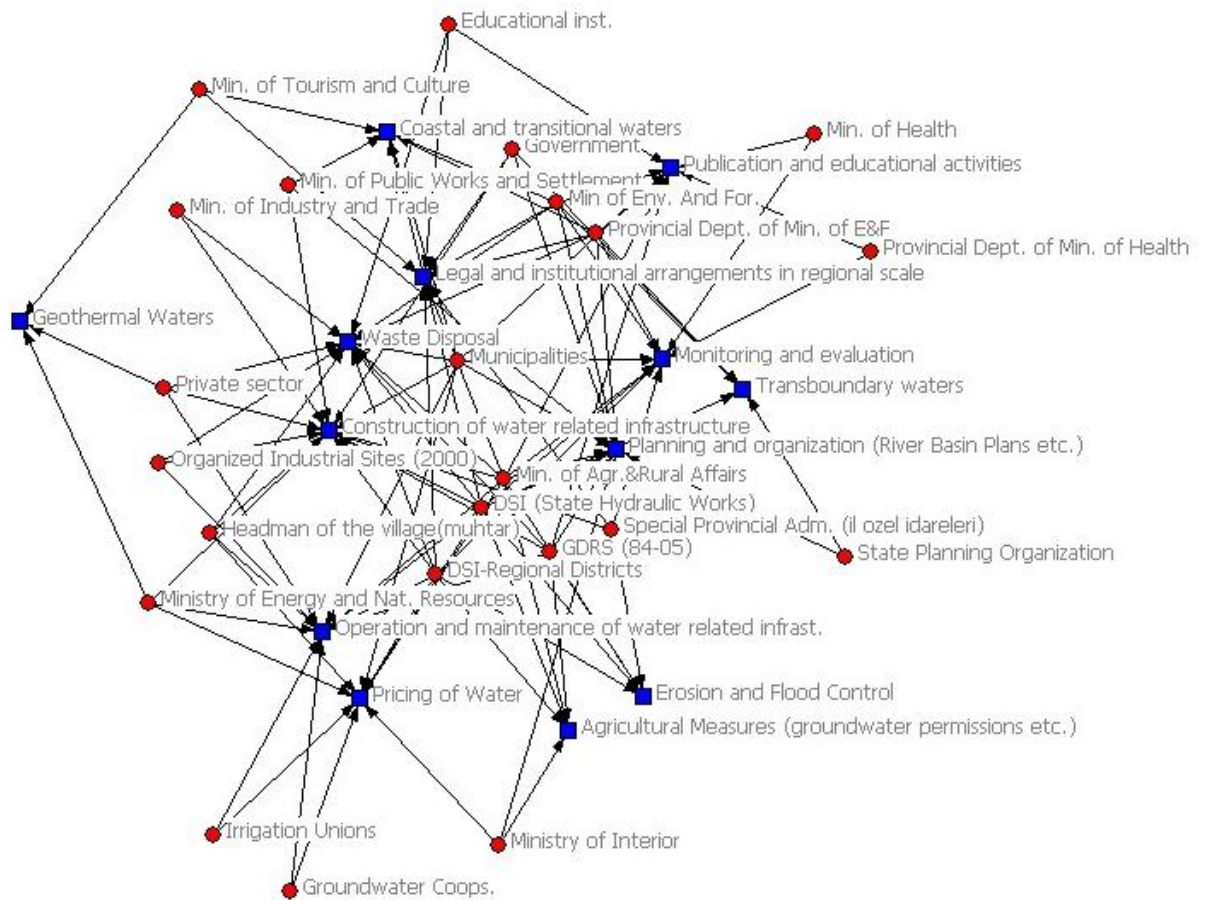


Figure 5. 2000s Water Management Policy Network

Comparing with the water management policy network of 1950s with that of 2000s, one can recognize the tremendous change in terms of density of the network. The density of interactions has increased considerably. In other words, the policy network has become a more complex one. The reason for this fact is related with the increase in the number of actors involved in the network. Instead of thirteen actors involved in the network in 1950s, 2000s network demonstrates a more multi-actor based setting in which twenty-three actors are involved. Establishments of new organizations such as the Ministry of Environment and Forestry, increased roles for irrigation associations and organized industrial sites are examples to the increasing “multi-actor” character of the water management policy network. This implies that decisions

have begun to be taken in a more interactive framework. In this respect, it could be argued that Turkish water management policy network have become more participatory in terms of the actors involved in the process of policy making. Greater interaction would mean intensified exchange of communication among the organizations. This, in turn, could contribute to the quality of the decisions via amplifying the level of information exchanged within the network. The risk of this type of decision-making setting could be a slowing down in the process which could run counterproductive to the desired aim, i.e. an ever improving water management policy.

Despite the increasing density and number of actors within the network, there are remarkable continuities as well. For instance, the position of DSI in the network continued to be a significant one. From 1950s to 2000s, the functions of DSI remained largely intact, in terms of its roles in various water management policy functions.

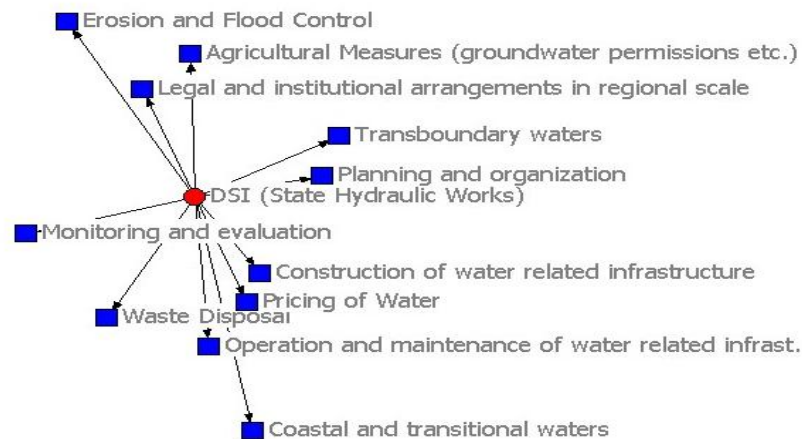


Figure 6. DSI in 1950's (Ego Network for the Node "DSI")

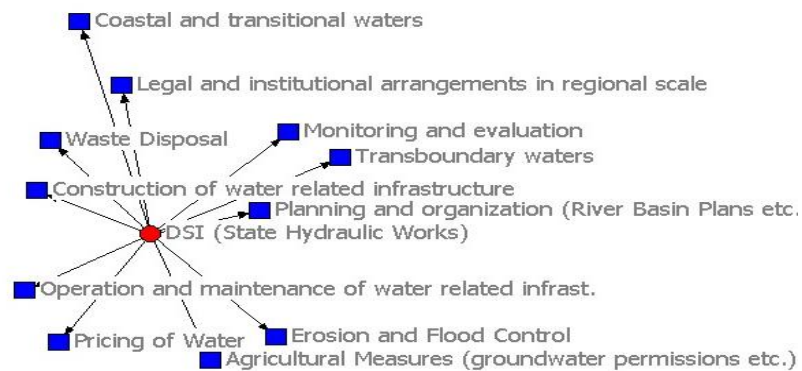


Figure 7. DSI in 2000s (Ego Network for the Node “DSI”)

However, the increasing density of the network as indicated in the network diagram of 2000s implies a “co-habitation”. In this regard, continuation of DSI’s role in policy networks is not indicative of stability in the network. Because, the functions that DSI had roles to play in 1950s policy network, have increasingly become the responsibility of other actors, as well. Therefore, this co-habitation means continuation of DSI functions, along with incorporation of new actors into the network. Within this context, through a comparison of the two policy networks of 1950s and 2000s, it could be argued that the responsibilities related with the functions of water management policy have become more dispersed in time. As new legislation which established new institutions have been enacted without changing or effectively updating the existing ones, the authority diffusion has become an outcome. This also explains the so-called “fragmented” structure in Turkey’s water management policy framework. Thus, an analysis of the policy networks in Turkey’s water management policy demonstrates how legal changes resulted in authority diffusion.

Besides, it could be derived from the two consecutive diagrams showing the changes from 1950s to 2000s that (Figures 6.1. and 6.2.), the role of non-state actors (such as irrigation associations, private sector, organized industrial sites) have increased. The increased involvement of non-state actors would mean that water management policy

networks in Turkey have witnessed a wave of change which could be characterized as “change from government to governance”. In other words, instead of a setting in which decisions are taken basically by coordinated action of state-actors, a more collaborative framework which involves non-state actors, is gradually emerging.

Another change that comparison of two diagrams shows is the increasing prominence of some other functions vis á vis “construction of water related infrastructure”. It is demonstrated in the 1950s diagram that the core function of the water management policy of the time was construction of physical water works. Framed by the declared need to utilize water resources serving the economic and social development of the country; the main target of water management policy in 1950s was apparently the development water resources, which materialized as construction activities.

While construction activities continued to have prominence through subsequent decades, other functions, such as “monitoring and evaluation”, began to have more central positions in the network, particularly from 1980s onwards. Enactments of monitoring-related and environment-focused legislation, namely the By-law on Control of Water Pollution (1988), the Law on Environment (1983) and the establishment of Ministry of Environment in 1991 contributed to the new position of “monitoring and evaluation” within the water management policy network. Analyzing the networks of the function of “monitoring and evaluation” reveals this change. Monitoring and evaluation activities have become a subject of a greater number of actors, than they were used to be in the past. Following is a comparison of the “ego network” of monitoring and evaluation in 1950s network and 2000s network:

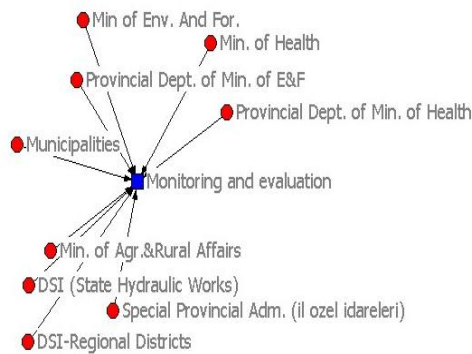
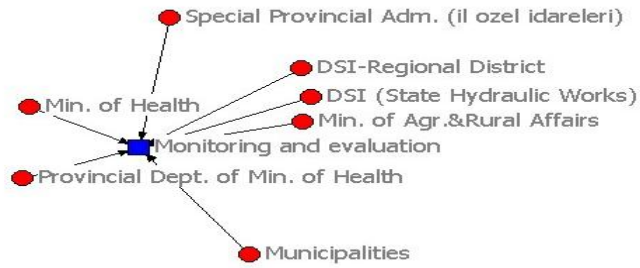


Figure 8. Ego Networks of “Monitoring and Evaluation” in 1950s and 2000s

Squaring the affiliation matrix, i.e. the Excel table that was used to visualize the policy networks, “organization to organization” matrix is produced via UCINET. This matrix is then transformed into visualization via Netdraw program. This type of diagrams highlights the ties (i.e. relations) between the nodes (i.e. actors). It is recognized from comparison of the two diagrams showing organizations’ interconnectedness in 1950s and in 2000s that eight “isolates” appearing in the first diagram (Groundwater cooperatives, irrigation unions, private sector, MoEF, provincial units of MoEF, Organized Industrial Sites, Soil and Water General Directorate and GDRS) cease to exist as isolates in the second diagram. Most of these actors began to have included in the network (except for Soil and Water Directorate General, which was closed in 1984).

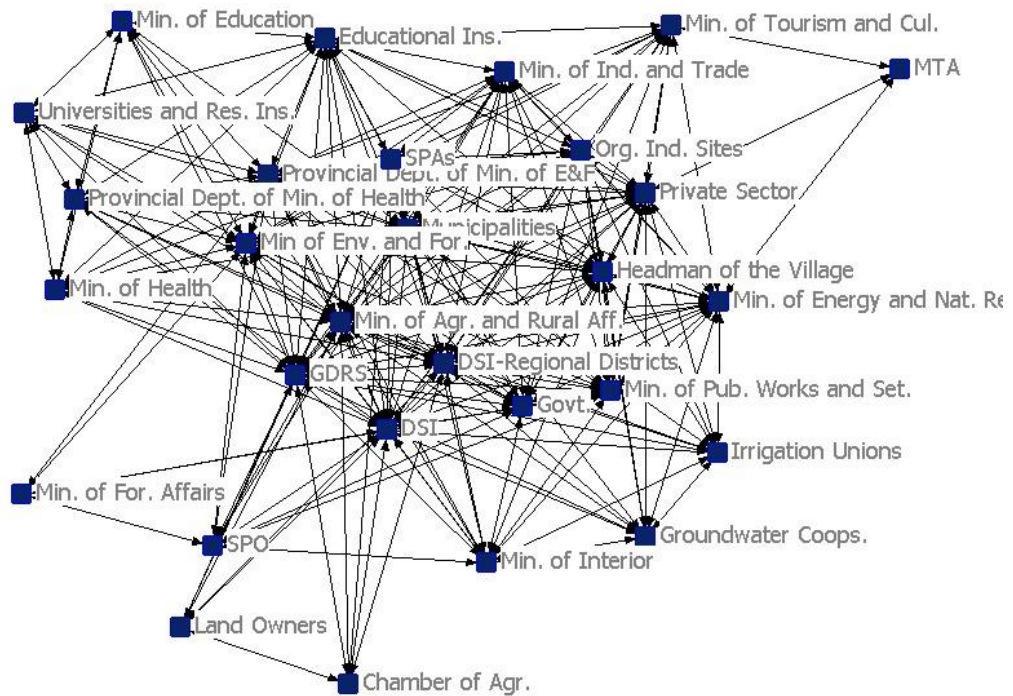


Figure 10. Organization to Organization Diagram (2000s)

When “tie strength” data is added to the diagrams above, following diagrams are produced⁸⁵³. These diagrams even emphasize more the increasing level of density in the network. Through comparing these two diagrams, the extension of the “core” in the network could easily be recognized. The core in the first diagram comprised DSI, MARA, and Municipalities. The core in the second diagram, however, included a greater number of actors: DSI, MARA, Municipalities, MoEF and GDRS. Therefore, the water management policy network in Turkey began to have a greater number of actors in the core.

⁸⁵³ Tie strength data, for visualization purposes, is produced giving “1” to the weakest tie and “10” for the strongest tie.

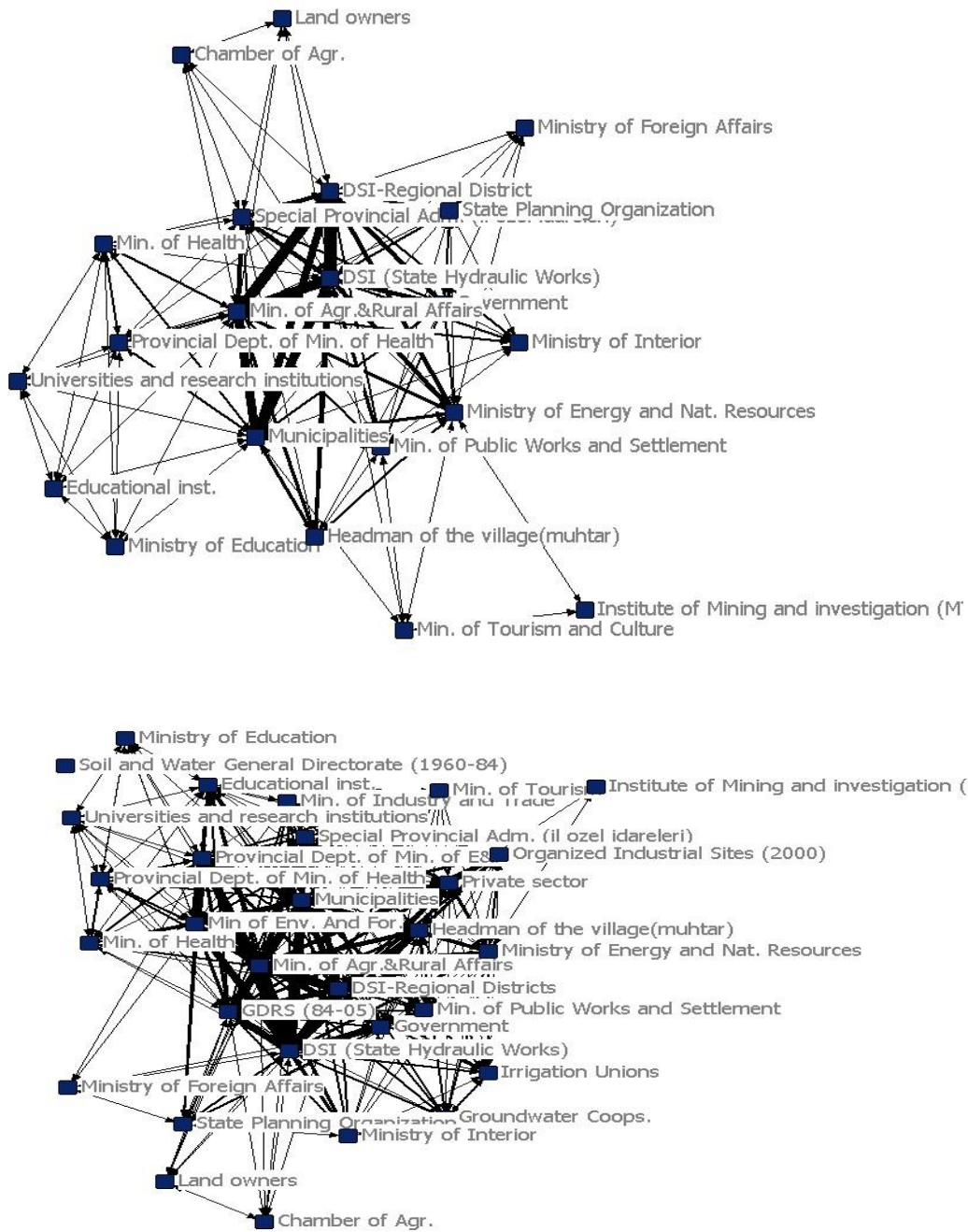


Figure 11. Organization to Organization Diagram (Tie Strength data added)

Policy network analysis shows that as a result of various legal changes, the water management policy network in Turkey cumulatively experienced significant alterations. One of the main contributions of policy network analysis through

visualizations lies in its power to make changes in legal discourses visible and tangible. Therefore, policy network visualizations quantify the change, and enable one to compare and contrast policy networks of different eras.

In light of the analyses above, it could be maintained that policy networks, which composed of the whole body of interrelationships among the actors involved in water management policy, suggests a degree of responsiveness. In other words, water management policy network in Turkey demonstrates a capacity of adaptability. Despite a number of continuities, as exemplified by the continued actorness of DSI, dynamism and change is the basic character of this network.

From this token, it is plausible to argue that similar to the changes on the level of legal discourses, changes in policy networks would continue to be on the fast track. WFD related changes will be effectively experienced in these two levels first. Interactively, the “hard” institutions (i.e. organizations), which are shaped by legal discourses, and which exhibit themselves in policy networks are also malleable. This means that fast changing legislation is influencing both the hard institutions (organizations), and the policy networks that linkages among these organizations create.

Table 11. Summary of Changes in Policy Networks

Policy Network in 1950s	Policy Network in 2000s
Few actors involved. Narrow core.	Greater number of actors involved. Actors’ roles getting more even out. Widening core.
Low density.	Increased density.
Construction related functions dominated the network	Increased activity in some functions like “monitoring and evaluation”

6.3. Conclusion

This Chapter discussed the evolution of policy networks in Turkey's water management policy. It has been demonstrated that these policy networks have been modified to a great extent in recent decades. Not only the establishment and abolition of several organizations (e.g. Ministry of Environment and Forestry, GDRS), but also the changes in roles and responsibilities of respective organizations comprised the dynamics of changes in policy networks. In this context, the water management policy network of 2000s differs quite much from that of 1950s.

As of early 2010s, with the increasing number of new actors, the density of the policy network has increased. Therefore, the policy decisions are taken and implemented by a greater number of actors than the past. This implies a trend towards "specialization" at least for a number of organizations. In other words, several organizations are increasingly becoming confined to a narrow range of functions than they used to be. To illustrate, as it has been demonstrated through relevant parts, once having been established with a comprehensive mandate; the roles of DSİ have shrunk in time, relative to some other actors (e.g. MoEF) as a combined result of several developments: the establishment of Ministry of Environment (in 1991), transfers of large irrigation systems to irrigation unions, and with an increased role for private sector. The specialization trend continues to be effective as the new structure of Ministries displays: Water issues are to be dealt by a new Ministry (the Ministry of Forestry and Water Works) with a narrow mandate than the MoEF. Through specialization, organizations could improve their operational practices. This also implies that the "depth" of policy networks has increased. Actors in the network have become able to focus in a limited number of issues, instead being fragmented into many policy areas.

The level of change observed in the last five decades of water management policy networks in Turkey suggests that with the WFD there is an adaptive capacity in policy network, which could be an asset in course of WFD harmonization and implementation. Similarly, increases in information flow through greater number of

actors suggests that a more participatory, consensual water management is not out of sight.

CHAPTER 7

Efforts of Turkey for WFD Harmonization: What has been achieved?

7.1. Introduction

The European Union's (EU) Water Framework Directive (WFD) has been designed to be centerpiece legislation for the management of European waters. It was adopted in 2000 following a series of lengthy negotiations among the parties involved. It is accepted as one of the most significant water related legislation in the European Union. According to some experts, the WFD implies a radical change in the manner that water management policy is perceived.⁸⁵⁴ It is even regarded as “the most ambitious and complex piece of legislation on environment ever enacted in the EU”.⁸⁵⁵ As stated earlier in the dissertation, it mainly aims to harmonize and streamline existing water legislation throughout the EU and to achieve “good water status” all over EU waters by 2015, at the latest.

In its march towards EU membership, Turkey now faces the challenge of transposing and implementing all elements set out in the WFD. As the WFD has become part of the *acquis* (the total body of EU law accumulated thus far), Turkey is obliged to comply with it by date of accession. Yet, for this to be realized, tremendous efforts as well as large amounts of investments are needed.⁸⁵⁶ Further, despite giving ample room for flexible solutions which enables Member States to determine their own

⁸⁵⁴ Consuelo Varela Ortega and Nuria Hernández-Mora, “Institutions and institutional reform in the Spanish Water Sector: A Historical Perspective”, in Alberto Garrido and M. Ramón Llamas (eds.), *Water Policy in Spain*, CRC Press/Balkema, Leiden, 2009, pp. 117-130.

⁸⁵⁵ M. Menéndez Prieto, “Facing the Challenges of Implementing the European Water Directive in Spain”, in *ibid.*, p. 175.

⁸⁵⁶ Vakur Sümer and Çağrı Muluk, “Challenges for Turkey to Implement the EU Water Framework Directive”, in Ayşegül Kibaroğlu, et al., *op. cit.*, forthcoming.

solutions to address their country-specific problems, the WFD requires a challenging schedule for implementation. The main tasks to be done by Turkey in the framework of WFD could be summarized as follows: creating a reliable inventory of water data which will be the foundation for other activities to be done within the scope of the WFD, establishment of a proper monitoring system, setting up pricing systems for all sectors taking into account of the “full cost recovery” principle, realizing participation of all interested parties to the processes of water management, and designation of river basin management plans with a view of implementing the program of measures to reach the environmental objectives, crystallized in the theme of achieving “good status” for all water bodies.

The declaration of Turkey as a candidate country, in December 1999, Helsinki European Council, triggered a new wave of changes in Turkey’s water management policies. With Helsinki decision, the goal of EU membership of Turkey has been formalized by the EU. The status of Turkey vis á vis the European Union has been brought to a new level. Turkey, from then on, has to be bound to the EU with stronger links and with a more institutionalized setting. Accordingly, the EU prepared an “Accession Partnership” document which had been responded by preparation of a “National Program” by Turkey. These documents have the function of being reference points in evaluation of the changes that have been undertaken by Turkey through the harmonization process.

Within the context defined by the Helsinki Summit, beginning from early 2000s, a number of steps have been taken by Turkey in order to facilitate the harmonization process with the EU Water Framework Directive and its related EU level legislation. All these efforts could be analyzed under three main categories.

The first one is the “pilot projects” which includes projects supporting harmonization in a specific location (e.g. MATRA Project focusing on Büyük Menderes Basin), or throughout the country (Twinning Project on Monitoring, 2010-2011). Pilot projects are either supported by a single country (the DEFRA supported project, 2005), or by a number of countries (Twinning Project, “Capacity Building Support to the Water

Sector in Turkey”, which was supported by the Netherlands, Slovakia and the United Kingdom, 2008-2009). The second category is the “legislation changes” specifically done in order to move Turkish water legislation closer that of the Union’s. These include changes in existing legislation and enactments of new pieces of legislation. The third category includes the provisions that official legal documents and independent official studies or initiatives (e.g. National Programs, Working Groups’ Documents, Strategy Documents) entail with respect to water management policy area.

This Chapter is discussing these changes and providing an analysis about their extent in altering the legal framework, institutions, and policy networks (inter-relationships among relevant actors) prevalent in Turkish water management. In so doing, both strength and weaknesses of Turkey’s progress with regards to the WFD harmonization will be examined.

It is basically argued in this chapter that harmonization with the WFD is a complicated undertaking for Turkey due to different types of challenges including, but not limited to, the need for organizational/institutional reforms, arrangements for public consultation processes and for stakeholder involvement, the need for a new pricing set-up which will realize the cost recovery principle, and financial difficulties. Another conclusion is that the size of influence of these changes remains variable with regards to each dimension of Turkey’s water policy concerned. This has two distinct implications. Firstly, while some changes are more successful in yielding visible results, outcomes of a number of efforts remain less tangible. Secondly, while changes in legal rhetoric are more visible, changes in institutions that govern water management and policy networks associated with organizations responsible from the implementation are somewhat subtle. Therefore, despite the fact that the analysis of all three types of changes reveal that water management in Turkey is steadily approaching to European standards as set by the WFD, the magnitude of these changes and the size of impact they genuinely make in Turkey’s water management policy is occurring at variable speed.

7.2 Steps towards Implementing the Water Framework Directive

Table 12. Programs, Projects and Initiatives towards WFD Implementation

Programs, Projects and Initiatives	Actor(s) initiated /involved	Time period
National Program for the Adoption of the <i>Acquis</i>	Council of Ministers, and all relevant ministries.	2001, 2003 and 2008 (three national programs, updated each time)
Working Groups for the WFD related transposition tasks	Ministry of Foreign Affairs was the coordinator, SPO and Secretariat General for EU Affairs were chairs of two Working Groups	2004
MATRA Pre-accession Project: “Implementation of the WFD in Turkey”	Dutch Government, Grontmij Consultancy, Kentkur Proje A.S. MoEF, DSI, MoH, MARA, the Ministry of Tourism, SPO, the Secretariat General for EU Affairs and the Ministry of Foreign Affairs.	2002-2004
Pre-accession Project: “Environmental Heavy-Cost Investment Planning in Turkey”	“Consortium of Envest, MoEF	2002-2005
Restructuring of the Turkish Water Sector for the Implementation of EU Water Directives	DEFRA, the UK and MoEF	2005
EU Twinning Project: “Capacity Building Support to the Water Sector in Turkey”	MoEF, DSI , The Directorate General for Environmental Management, Member State Consortium: -The Dutch Ministry of Agriculture, Nature and Food Quality - The Environment Agency from the United Kingdom - The Slovakian Water Research Institute.	2008-2009
EU Twinning Project “Capacity Strengthening and Support of Implementation of	Member State Consortium (Austria, the Netherlands, the UK), MARA and MoEF	2009 (Contract in 2007)

**Table 12. Programs, Projects and Initiatives towards WFD Implementation
continued.**

the Nitrates Directive in Turkey” (TR 2007 IB EN 01)		
The EU Twinning Project “Capacity Building on Water Quality Monitoring” (TR 09 IB EN 03)	Member States Consortium (the Netherlands, France, Spain), and MoEF	2010-2014
The EU Twinning Project “Capacity Building to implement the Flood Directive” (TR10-IB-EN-01)	DSİ	2010-2014
The EU Twinning Project Alignment in Bathing Water Monitoring (TR10-IB-EN-02)	Ministry of Health	2010-2014
Project on Capacity Improvement for Flood Forecasting and Flood Control in the TR-BG CBC Region (TR0602.15)	DSİ	2007-2011
Mitigating Flood Risk in the Flooded Areas in the GAP Region (GAPSEL) in Turkey (2007-2010)	GAP Regional Development Administration	2007-2010

Several initiatives, studies and projects have been hitherto undertaken to support the adoption of the EU water-related *acquis* in Turkey – with varying degrees of success. The most important ones are summarized below together with their main outcomes. There are also a number of local projects which are not done directly for the WFD, but have some aspects related to it such as wastewater treatment projects⁸⁵⁷ and drinking water facilities⁸⁵⁸ in a number of urban centers. It seems likely that there will be an increase in the number of projects in upcoming years, mainly because of

⁸⁵⁷ Examples of such projects include wastewater treatment plants for Erzurum, Bartın, Ceyhan, Adıyaman, Polatlı, Siverek, Seydişehir, Çarşamba, Diyarbakır, Erdemli, Akşehir, Aksaray, Merzifon, Lüleburgaz and Soma.

⁸⁵⁸ Examples of such projects include Akçaabat, Bulancak, Doğubayazıt, Erciş, Erzincan, Manavgat, Nizip and Silvan.

the fact that the negotiations on Chapter on Environment were opened on 21 December 2009.

7.2.1. National Program for the Adoption of the *Acquis* (2001, 2003, 2008, 2011-forthcoming)

The National Program is an official document prepared by relevant contributions from relevant ministries of Turkey, setting out the details, timetables and costs that Turkey presents for the fulfillment of each priority area as defined in the Accession Partnerships. The First National Program, which basically listed the EU legislation to be adopted by Turkey, was published in 2001. The details about how these legislations are planned to be transposed and implemented were not given. A revised National Program for the Adoption of the *Acquis* was adopted on 24 July 2003. With respect to the water sector, the EU legislation that was prioritized under the heading 22.1 “Improvement of the Water Quality”⁸⁵⁹ was studied by relevant ministries. These included the Drinking Water Abstraction (2005), Urban Waste Water (2006), Bathing Water (2006), and Drinking Water (2005) Directives. Accordingly, following By-laws have been prepared and entered into force in Turkey: the By-law on the Waters from which Drinking Water is Obtained or Planned to be Obtained (2005), the By-law on Urban Wastewater Treatment (2006), the By-law on Control of Pollution by Dangerous Substances in Water and its Environment (2005), the By-law on Protection of Waters Against Nitrate Pollution from Agricultural Sources (2004), By-law on Water Intended to Human Consumption (2005), By-law on Bathing Water Quality (2006) and the Environmental Impact Assessment Directive (2003, amended in 2008).⁸⁶⁰

⁸⁵⁹ See Republic of Turkey, *National Program of Turkey for the Adoption of the EU Acquis (2003)* available online at <http://www.abgs.gov.tr/index.php?p=196&l=1>, accessed on 5.1.2010.

⁸⁶⁰ See www.cevreorman.gov.tr, accessed on 16.12.2009.

The National Program, which was revised in 2008, proposed a harmonization schedule for “water management”. According to this National Program, similar to what have been argued in previous official documents, harmonization with the WFD will be realized if and when a clear perspective of EU membership for Turkey appears on the horizon. Apart from WFD and few other water related directives (Bathing Water Quality Directive, 2006/7/EC, Assessment and Management of Flood Risks Directive, 2007/60/EC and Directive 91/676/EEC on Nitrates from Agricultural Sources), transposition of most of the remaining water related directives are said to be finished in 2009.⁸⁶¹ The following table provides an updated list what has been transposed so far (as of July 2011) in Turkey with regards to water *acquis*.

Table 12. Water Acquis and Turkey’s Progress

#	European Directive	Progress	Transposition Status & Date	Leading Ministry
1	Water Framework Directive (2000/60/EC)	Experience gained through projects, legal gap analysis carried out	Deadline for transposition tentatively set for 2011.	MoEF
2	Dangerous Substances Directive (76/464/EEC)	Deadlines will be reconsidered based on the outcomes of <i>Twinning Project</i> (2008-09)	Accession of Turkey is not envisaged before the repeal of this Directive, no transposition is required.	MoEF
3	Daughter Directive on Priority Substances (2008/7/EC)	Priority Substances are reflected in recent legislation.	Full transposition after 2015.	MoEF
4	Bathing Waters Directive (New) (2006/7/EC)		Date for full implementation will be determined through the proposed Project titled “Harmonization of	MoEF and MoH

⁸⁶¹ See Republic of Turkey, *National Program of Turkey for the Adoption of the EU Acquis (2008)* available online at <http://www.abgs.gov.tr/index.php?p=42260&l=2>, accessed on 06.01 2010.

Table 12. Water Acquis and Turkey's Progress continued

			the New Bathing Water Quality Directive and Strengthening the Monitoring System of the MoH” submitted to 2010 IPA Program.	
5	Bathing Waters Directive 76/160/EEC		Transposed on 09.01.2006.	MoEF
6	Directive on the Quality of Water intended for Human Consumption (98/83/EC) (Drinking Water Abstraction Directive, 75/440/EEC is repealed in 2007)		Transposed on 17.02.2005.	MoEF
7	Urban Wastewater Treatment Directive (91/271/EEC)		Transposed on 08.01.2006, with a period of implementation until 2023.	MoEF
8	Nitrate Directive (91/676/EEC)		Partially transposed in 2004, full transposition no sooner than 2013.	MARA and MoEF
9	Integrated Pollution Prevention and Control Directive (96/61/EC)		Transposition by the end of 2012.	MoEF
10	Major Accidents (Seveso) Directive (96/82/EC)		Transposed in 2009, implementation until 2014.	MoEF
11	Sewage Sludge		Transposed on	MoEF

Table 12. Water Acquis and Turkey's Progress continued

	Directive (86/278/EEC)		31.05.2005.	
12	Plant Protection Products Directive (91/414/EEC)		Transposition will be completed by the end of 2010.	MARA
13	Water for Freshwater Fish Directive (78/659/EEC-consolidated version 2006/44/EC)		Accession of Turkey is not envisaged before the repeal of this Directive, no transposition is required.	MARA and MoEF
14	Flood Risks Assessment and Management Directive (2007/60/EC)	Twinning Project: "Capacity Building on Flood Directive in Turkey" will be carried out between 2011 and 2013.		MoEF
15	Marine Strategy Framework Directive (2008/56/EC)	Application for a supporting Project to the IPA has been made.		MoEF
16	Environmental Impact Assessment Directive (85/337/EEC)		Partially transposed including clauses on public participation.	MoEF
17	Habitat (92/43/EEC) and Birds (79/409/EEC) Directives		Partially transposed, full transposition after 2011.	MoEF
18	Daughter Directive on Groundwater (2006/118/EC)	Relevant legislation, institutional structure, and implementation capacity of Turkey have been reviewed, gap analysis has been made. Draft	Deadline for Transposition tentatively set for 2011.	MoEF

Table 12. Water Acquis and Turkey's Progress continued

		By-law prepared.		
19	Water for Shellfish Directive (2006/44/EC)		Transposed through a circular in 2008.	MoEF
20	Sampling and analysis of surface water intended for the abstraction of drinking water Directive (79/859/EEC)		Transposed on 20.11.2005.	MoEF
21	Groundwater Directive dangerous substances (80/68/EEC)		Accession of Turkey is not envisaged before the repeal of this Directive, no transposition is required (will be repealed in 2013).	MoEF
22	Shellfish Directive (79/923/EEC)		Accession of Turkey is not envisaged before the repeal of this Directive, no transposition is required (will be repealed in 2013).	MoEF

Source: Own compilation based on Ministry of Environment and Forestry, *Draft National Implementation Plan*, 2010, and Özden Bilen, “*Türkiye'nin Su Gündemi...*”, Ankara, 2009 .

A new National Program will be published in 2011 and this will set out further work required by the WFD implementation process. The new National Program is likely to

mention the year that Turkey would comply with the WFD. This will be either 2027 or 2033, in line with the Draft National Implementation Plan⁸⁶².

7.2.2. Working groups under the coordination of the Ministry of Foreign Affairs (2004)

In 2004, to foster the efforts for the transposition of the WFD and to coordinate different institutions, two separate Working Groups were established under the coordination of the Ministry of Foreign Affairs with the participation of all institutions having a role in water management in Turkey. The aim of Working Group one, which was chaired by the State Planning Organization, was to screen the existing task and responsibilities of the organizations that were having a role in water management. The second Working Group chaired by the Secretariat General of EU Affairs focused on the transposition of EU regulations into Turkish legislation. Upon their establishment these two groups had two meetings during the first period of six months. During the meetings of these two groups it was agreed that there was a need for a Framework Water Legislation in accordance with the requirements of the WFD.

According to the first working group the obstacles in Turkey regarding harmonization of the Turkish water legislation with the EU legislation can be summarized as: the incoherence in legislations resulting in institutional conflicts and overlaps; fragmentation of water quality and quantity management; incapacity of the regional level administrations to promote sustainable water use and problems associated with it (planning, financing, permissions and sanctions); lack of effective pollution control; lack of enforcement despite the existence of legislation; lack of

⁸⁶² In the Draft National Implementation Plan for the WFD, which is an output of the Twinning Project (TR06-IB-EN-01) “Capacity Building Support to the water Sector in Turkey”, these are declared as two possible dates for achievement of “good status” objective of the WFD.

updating relevant institutions laws of establishments, and lack of effective coordination and cooperation among institutions.⁸⁶³

The reports prepared by these two working groups were later on sent to the Prime Ministerial Office through the Ministry of Foreign Affairs. However, the Prime Ministerial Office did yet not respond to these reports. According to Çubukçu, diplomat and expert on Turkey's transboundary water affairs, the reason for this was that the outcomes were not fully in conformity with different priorities of the institutions, and they were not applicable. This project could rather be seen as an exploratory study through which the scope of further work was determined upon the definition of problems by official institutions involved in different aspects of water planning and management.

7.2.3. The MATRA project “Implementation of the Water Framework Directive in Turkey” (2002-2004)

Regarding the implementation of the WFD, a project named “Implementation of European Union Water Framework Directive in Turkey” has been carried out between 1 January 2002 and 30 April 2004. It was the first project for the harmonization of the WFD in Turkey. The main aim of the project was to support Turkey with the implementation of the WFD on national and regional levels. The Project was supported by the Dutch Government under the Dutch MATRA pre-accession program (MAT01/TR/9/3)⁸⁶⁴

⁸⁶³ Ünal Şorman, “AB Su Çerçeve Direktifi ve Türkiye Uygulaması Hakkında Görüşler”, paper presented at *TMMOB Su Kongresi*, Ankara, 2006.

⁸⁶⁴ 2003 MATRA Program aims at assisting pre-accession countries in adopting the *acquis communautaire*, and establishing relations between Dutch government institutions and recipient countries.

The project aimed to support the MoEF in its efforts to adopt and implement the Water Framework Directive. It was proposed that one demonstration area be selected to serve as a setting for the entire project. Within this regard, Büyük Menderes River basin was selected as the pilot area. One of the key aspects of the projects was the concept of water management on a river basin scale. Key issues in this project were the enhancement of cooperation between different decision-making bodies involved in water management, and enabling public to participate in the process.

The results of the Project were listed as follows:

- Definition of Turkish river basins in accordance with the WFD requirements;
- Greater knowledge of the WFD and other relevant European legislation among the organizations involved in integrated water management;
- A manual of established methodologies for the implementation of the WFD in Turkey;
- A management plan for the Büyük Menderes basin which will act as an example for other river basins;
- Information to the public and policy-makers about the project results achieved, and about the consequences of implementing the WFD in Turkey.⁸⁶⁵

In the frame of this project, to facilitate discussions and decision making on national level a “National Platform on Water Management” was established with the participation of the MoEF, the DSI, the MoH, the MARA, the Ministry of Tourism, the SPO, the Secretariat General for EU Affairs and other relevant official organizations determined during course of Platform meetings. The National Platform acted as a consultative and discussion group in which all government stakeholders in the field of water management. During the project, the Platform contributed to better coordination and cooperation between involved institutions. However, the Platform

⁸⁶⁵<http://www.evd.nl/business/zoeken/showbouwsteen.asp?bstnum=113198&location=&highlight=>, (Web site of the Ministry of Economic Affairs, the Netherlands), accessed on 08.07.2010.

did not continue after project completion despite the expectations expressed by the Platform participants for continuation of it⁸⁶⁶.

Evaluations of legal and institutional set-up necessary to meet the WFD's requirements were an important part of the project. MATRA Project concluded that in order to facilitate sound water management practices, through which views of all stakeholders' are taken into account and accommodated as much as possible to the river basin management plans, "river basin commissions" should be established. It further recommended that for that purpose the leader institution could be the DSI Regional Directorates.⁸⁶⁷ The Project laid out the main tasks to be done in order to meet the EU requirements concerning the WFD as follows:

- Coordination and Cooperation among State institutions,
- Transfer of powers and responsibilities to the regional level (River Basin Districts),
- Integrated water management approach focusing on water bodies and water users,
- Information sharing and dissemination,
- Public consultation and stakeholder participation,
- Economic incentives and measures.⁸⁶⁸

⁸⁶⁶ Erwin F.L.M. de Bruin, Frank G.W. Jaspers, and Joyeeta Gupta, "The EU Water Framework Directive: Challenges for Institutional Implementation", in Jan Vermaat et al., (eds.), *Managing European Coasts: Past, Present, and Future*, Springer, Berlin, 2005, p. 163.

⁸⁶⁷ Grontmij, *op. cit.*, p. 27.

⁸⁶⁸ *Ibid.*, p. 11.

7.2.4. The project “Environmental Heavy-Cost Investment Planning in Turkey” (2002-2005)

In order to achieve the objectives of the WFD, particularly “good water status,” heavy cost investments are required in Turkey. European Directives that require the highest amounts of investments include the Urban Waste Water Treatment Directive, the Drinking Water Directive, and the Quality of Surface Water Intended for the Abstraction of Drinking Water Directive, the WFD, Directive on Dangerous Substances Discharged into Water, the Nitrate Directive and the Bathing Water Directive.

The “Environmental Heavy-Cost Investment Planning in Turkey” project (EuropeAid/114715/D/SV/TR) was carried out from 2002 to 2005, and estimated the amount of investment required for the implementation of Directives. According to estimates by ENVEST Planners (which is an international consortium), Turkey needs to invest 65 to 70 billion Euros in the environmental sector in order to meet EU environmental *acquis*. The Project also aimed to determine financial instruments which will be used for implementation of water quality requirements concerning EU’s integrated pollution control, waste management (including wastewater), establishing an infrastructure for implementation of air quality *acquis*, and planning of infrastructure investments.⁸⁶⁹

7.2.5. “Restructuring of the Turkish Water Sector for the Implementation of EU Water Directives” (2005)

One of the studies for facilitation of WFD implementation in Turkey was a report prepared by United Kingdom (UK) Department of Environment, Food, and Rural Affairs (DEFRA) in 2005. DEFRA’s Report, “Restructuring of the Turkish Water Sector for the Implementation of EU Water Directives”, was prepared for the MoEF. The Report proposed that for an efficient implementation of EU water directives in

⁸⁶⁹ Tayfun Çınar and Hülya K. Özdiç (eds.), *op. cit.*, p. 173.

Turkey, “environment agencies” should be established, and powers and responsibilities of DSI should be transferred to those agencies. According to the report, DSI should only be responsible for big construction works, upon request by municipalities. All the relevant work for the implementation of the WFD (such as preparation of River Basin Management Plans, monitoring of water quality, operation of program of measures) will be conducted by environment agencies. The Report also recommends the establishment of a council, similar to “Ofwat”⁸⁷⁰ in the UK and Wales, acting as an economic regulatory body, responsible from controlling the water tariffs and investment proposals of environment agencies.⁸⁷¹

7.2.6. The project “Strengthening the Capacity of Sustainable Groundwater Management in Turkey” (2006-2008)

With regard to the Directive on the Protection of Groundwater against Pollution Caused by Certain Dangerous Substances (80/68/EEC), the project “Capacity Building with Regard to Sustainable Groundwater Management in Turkey”, which is supported by Government of Netherlands under the MATRA pre-accession program (MATRA-PPA05/TR/7/8), has been carried out between January 2006 and January 2008. The project was to provide support for the implementation of the provisions of the Groundwater Directive (80/68/EEC), its revision (2006/118/EC), and the WFD. It focused on three aspects: assisting Turkish government with transposition of the Groundwater Directive and the WFD; assisting the counterpart organizations in developing an institutional structure for groundwater management in Turkey, with a clear overview of tasks, responsibilities and instruments to be used; assisting the counterpart organizations with hands-on training to co-develop a groundwater management plan, including skills and tools needed. This also involves economic tools as specified in the WFD⁸⁷²

⁸⁷⁰ Ofwat (The Water Services Regulation Authority) is the economic regulator of the water and sewerage sectors in England and Wales.

⁸⁷¹ Özden Bilen, *op. cit.*, “Türkiye’nin Su...”, p. 308.

⁸⁷² Frank Vliegthart et al., *op. cit.*

When institutional issues are concerned, the question how to divide major tasks and instruments between Turkish water management authorities, notably between DSİ and MoEF was discussed (note that DSİ was not under the Ministry of Environment for most part the Project period). The starting point for discussions was the matter of nomination of competent authorities for the Directives and instruments for the institutional development and re-structuring. However, due to the belated ambiguity regarding the status of DSİ (which was then brought under the MoEF as a separate legal entity) the discussion on competent authority could not be finalized within the project timeframe. Instead, in order to facilitate future decision making within MoEF and DSİ, some possible options on task divisions were recommended.

As a pilot study for the project, Küçük Menderes River Basin was selected, and a Draft Groundwater Management Plan according to the Groundwater Directive and related parts of the WFD was prepared. Experts from counterpart organizations (DSİ and MoEF) at national and local level contributed to the preparation of this plan. During the preparation of this plan various trainings regarding the drafting of groundwater management plan according to the directive were given to the members of the Pilot Project Working Group.

As a result of this project, an advisory action plan regarding the harmonization and transposition of European groundwater legislation was prepared and transposition is completed in 2008⁸⁷³. The plan called for institutional adaptations on all levels (national, regional and local), according to new responsibilities EU legislations necessitate. In addition, a draft By-law on groundwater was prepared. The deadline for transposition of the Directive (2006/118/EC) was tentatively set for 2011.

7.2.7. The EU Twinning Project “Capacity Building Support to the Water Sector in Turkey” (2008-2009)

The Twinning Project started at the beginning of 2008, and aimed to assist Turkey in improving water management in line with the EU water legislation, in particular the

⁸⁷³ Özden Bilen, *op. cit.*, “Türkiye’nin Su...”.

WFD, the Urban Wastewater Treatment Directive (UWWTD), and the Dangerous Substances Directive (DSD), in order to enable the full implementation of the EU water *acquis* by the date of Turkey's accession to the EU.

The project had three components; (1) Legal analysis of the WFD, the UWWTD and the DSD; (2) Development of implementation plans for the WFD and DSD and (3) Pilot implementation of the principles of the WFD, UWWTD and DSD in Büyük Menderes River Basin. The project also aimed to strengthen water resources management practices in Turkey with appropriate advanced decision-support tools to be used in real-time operational river basin information management system. For the Büyük Menderes pilot basin, an integrated operational turn-key system is aimed to be provided. The system will be compatible with the WFD and will provide an online water quality and quantity monitoring system, a basin information system, basin simulation models, as well as a Geographical Information System (GIS) and expert system. The project is designed to help to provide basic tools for sustainable management of water basins in Turkey to establish economic efficiency, environmental integrity and social development. The project has taken into account results of already finished projects such as two MATRA projects.

As the first component of the Project, “legal gap analysis” between European and Turkish water legislations was conducted. With regards to the basins of Akarçay, Yeşilirmak, Mediterranean and Sakarya, all relevant data were collected for preparing implementation plans of WFD and DSD. As the third component, a pilot river basin management plan was prepared for the Büyük Menderes river basin. Finally, a strategy of communication was prepared to make the project operational.

The Project was officially completed on 18 February 2010. In the meeting held for completion of the Project, it was stated by Turkish authorities that the Project significantly contributed to the capacity development in Turkey concerning the water

quality sector which constitutes one of the most costly and critical parts of the Chapter on Environment.⁸⁷⁴

With regards to the “legal gap analysis,” the project reached to conclusion that, in order to achieve an integrated approach to water management in Turkey, there is apparent need for a “Framework Water Protection Law.” This need mainly emanates from the fact that authorities and responsibilities of different institutions involved in water planning and management in Turkey are determined by their respective establishment laws resulting in duplications and inefficiency. Preparations for this law are conducted by the General Directorate of Environment Management of the MoEF. This law is said to satisfy long-lasting need for a “framework water law”, preparations for which has been completed in as early as 2000, in form of a Draft Law. The proposed Framework Water Protection Law will possibly be enacted in 2011.⁸⁷⁵ Adoption of this Law will be the main building block for the transposition of the WFD.

The preparation of a “Draft National Implementation Plan” for the WFD appeared to be one of major outcomes of this project. The Draft Plan basically “sets out how, when and by whom the Water Framework Directive will be implemented” in Turkey.⁸⁷⁶ The intention of preparation of the Draft Plan is stated as “to provide a basis for decision-making by the Republic of Turkey.”⁸⁷⁷ Next section discusses the elements of this Draft Plan.

The Draft Plan begins with an affirmation of Turkey’s aspiration “to achieve ‘good status’ in terms of ecology and chemistry in all water bodies by 2027”.⁸⁷⁸ With this,

⁸⁷⁴ For details, see <http://www.dsi.gov.tr/basinbul/detay.cfm?BultenID=202>, accessed on 25.02. 2010.

⁸⁷⁵ Hasan Z. Sarıkaya and Nermin Çiçek , *op. cit.*, p. 11.

⁸⁷⁶ Republic of Turkey, *op. cit.*, “Draft National ...”, p. v.

⁸⁷⁷ *Ibid.*, p. 4.

⁸⁷⁸ *Ibid.*, p. 1.

Turkey restated the date, which was first mentioned in the Strategy Document in 2009⁸⁷⁹, namely 2027, for harmonization with the WFD. However, elsewhere in the document⁸⁸⁰, it is stated that compliance with the objective or reaching ‘good status’ may be achieved in 2033, depending on the conclusions to be reached in “interim reviews” of this Draft Plan in 2018 or in 2022. The significance of this Document thus lies, among other elements, in recapitulating the date first mentioned for compliance with the WFD in the Strategy Document in September 2009 and substantiating the actions necessary for creation of river basin management plans (RBMPs) by the end of 2017.⁸⁸¹

The Draft Plan reiterates what the WFD introduced in terms of economic principles for management of European waters. The three principles that the Draft Plan refers include the polluter pays principle; using economic analysis and cost-effectiveness of the measures adopted and alternatives; and applying economic instruments, particularly water pricing. With regards to the situation in Turkey, the Draft Plan admits that “[a]most no data is available to perform economic analyses properly”.⁸⁸²

In this way, the Draft Plan pointed out one of the challenges in front of Turkey concerning the necessary data for conducting an economic analysis. It should be noted that economic analysis is particularly required as to form a firm ground for program of measures which should be based on the cost-effective measures and for determination of potential role of pricing. Given this context, i.e. lack of sufficient data for calculation, the Draft Plan indicates the implementation costs associated with the WFD and DSD (note that DSD will be repealed by 2013, and the

⁸⁷⁹ Republic of Turkey, Plan for Setting up Necessary Administrative Capacities at National, Regional and Local Level and Required Financial Resources for Implementing the Environmental Acquis, September 2009, Ankara.

⁸⁸⁰ Like in page v, in page 4, in page 10.

⁸⁸¹ Republic of Turkey, *op. cit.*, “Draft National...”, p. 5.

⁸⁸² *Ibid.*, p. 2.

requirements therein will fall under the WFD), based on “expert judgments”. The expert judgments reached a calculation of the costs of implementation via extrapolating of the costs of the program of measures for Büyük Menderes river basin.⁸⁸³ Since characteristics⁸⁸⁴ of Büyük Menderes river basin may not be relevant to other river basins in Turkey, the estimated calculations of the implementation costs given in the Draft Plan suffers from uncertainty.⁸⁸⁵

Despite the uncertainties embedded in the estimations presented above, the total costs of implementation as indicated in the Draft Plan remains remarkable. The Draft Plan maintains that approximately 5.8 billion USD is required for implementations of the DSD and WFD⁸⁸⁶. For the DSD will be repealed in 2013, resulting in the fact that all DSD requirements will be evaluated as part of the WFD, in the final analysis, this cost could be attributed to the implementation of the WFD.

Nonetheless, the costs given in the Draft Plan do not cover all the costs associated with WFD and related *acquis*. Indeed, the Draft Plan acknowledges that the costs of measures for implementation of other Daughter Directives of the WFD, which are not estimated thus far, could probably be “extremely high”.⁸⁸⁷ The costs of these Directives are yet to be calculated.

The Plan mentions three categories of actions (also called “three chapters”) which ensure river basin management plans are completed by the end of 2017. First action involves transposition of water related Directives and actions necessary for enabling the start of river basin planning at regional level. Second category of action is about

⁸⁸³ *Ibid.*, p. 3.

⁸⁸⁴ These may include economic use of water in the basin, the required measures to achieve ‘good status’, sources of pollution, etc.

⁸⁸⁵ *Ibid.*

⁸⁸⁶ 1.8 billion USD for WFD, 4 billion USD for DSD.

⁸⁸⁷ *Ibid.*, p. 4.

the steps to be undertaken at regional level for timely production of river basin management plans. Third chapter includes “practical support in the form of guidance material and training as well as the steps that ensure the coherence between all river basin management plans, such as review and standardization”.⁸⁸⁸

The Chapter 1 actions include transposition of Directives, designation of Competent Authority and River Basin Districts (RBDs), and adoption of a Draft National Implementation Plan. Transposition of WFD and other relevant Directives⁸⁸⁹ was summarized in Table 12. The second action included in the Chapter 1 is designation of Competent Authority and River Basin Districts. In Turkey’s view, Turkey is not obliged to prepare a formal document listing RBDs and the Competent Authorities for implementing the WFD in these RBDs (See below). With regards to the third action, the Draft Plan which was the output of the Twinning Project is accepted as the “final version” by Turkey. Nevertheless, annual review of this Plan, until 2017, was recommended by the Twinning Project.

Creating River Basin Authorities is one of the challenges that should be resolved as early as possible, because of the fact that it is one of the first steps to be taken within the WFD schedule. Turkish officials assert that “making a formal document listing River Basin Districts and the Competent Authorities for implementing the WFD in these River Basin Districts” is not yet a formal requirement for Turkey.⁸⁹⁰ This is simply because; according to official view, Turkey is not a Member State of the EU and thus, is not bound by the formal reporting requirements. Turkish authorities might have thought that formally designating competent authorities for river basin districts may, in the future, constrain consideration of alternative institutions as competent authorities. For this reason, Turkey chose a different path to follow and implement further steps in the WFD schedule (such as creating river basin

⁸⁸⁸ *Ibid.*, p. 5.

⁸⁸⁹ Directives that set objectives for the WFD Programs of Measures. See, *ibid.*, p. 7.

⁸⁹⁰ *Ibid.*, p. 9.

management plans) without designating the competent authorities for river basin districts.

Nevertheless, Turkey will eventually become bound by this requirement, i.e. identification of a competent authority (Article 3.3). In this context, according to Nermin Çiçek, an official from the Ministry of Environment and Forestry, who is in charge of WFD activities, MoEF will likely be declared as the competent authority in implementing the rules of the WFD in the Basin Districts.⁸⁹¹ Within this frame, in order to coordinate all WFD activities (along with other EU Directives), a Division of Environmental Administration (“Çevre İdaresi Başkanlığı” in Turkish) will be established within the MoEF organizational structure.⁸⁹² In line with the arguments stating that the MoEF will become competent authority for implementing the WFD in river basin districts, the Draft Plan states clearly that “[t]he competent authority for the implementation of the Water Framework Directive in the Ministry of Environment and Forestry”.⁸⁹³ Also, activities within the framework of the River Basin Protection Action Plans (RBPAPs), which will be “precursors” to the River Basin Management Plans (RBMPs) will be monitored and realized by the MoEF.⁸⁹⁴ Therefore, given these indicative actions it will be reasonable to expect that the MoEF (or a sub-unit within MoEF) will become competent authority (authorities) for implementing the WFD in river basin districts.

The second Chapter which includes actions for river basin management planning represents a substantial schedule and workload for Turkey. Actions within this Chapter consist of following: preparation of River Basin Protection Action Plan, establishment and implementation of a monitoring approach, preparation of Characterization Reports, production of an External Communication Strategy,

⁸⁹¹ Nermin Çiçek, Coordinator, General Directorate of Environment Management, Ministry of Environment and Forestry, personal interview, Ankara, April 2010.

⁸⁹² See <http://www.cevreorman.gov.tr>, accessed on 11.02.2010.

⁸⁹³ Republic of Turkey, *op. cit.*, “Draft National...”, p. 5.

⁸⁹⁴ *Ibid.*, p. 16.

preparation of a report on Summary of Significant Water Management Issues, Assessments of Water Body Status, Development of Program of Measures and Setting Environmental Objectives, publishing Draft River Basin Management Plans and finally publishing River Basin Management Plans.

In line with the actions listed in the Chapter 2 (Actions for River Basin Management Planning), Turkey is now preparing River Basin Protection Action Plans (RBPAPs). These plans will function as models for RBMPs. Thus, Turkey adopts a step-wise approach for preparing RBMPs. These plans (RBPAPs) aim to improve water quality in river basins in line with the environmental objectives of the WFD, to carry out necessary studies, and to realize sustainable and efficient planning. They are based on active involvement of stakeholders and ensure the implementation of priority measures to achieve good water status. Main content of RBPAPs include the characterization of existing situation, description of important pressures, listing of required measures, prevention of pollution, calculation of environmental flows, carrying out studies with regards to implementation of measures with participation of stakeholders. The main difference between RBMPs and RBPAPs is that, the former is broader in its consideration of biological issues, as well as hydro-morphological and chemical issues.⁸⁹⁵

Out of 25 river basins, 4 basins have now RBPAPs, the preparations are underway for 13 basins, and for 8 river basins preparations for RBPAPs will have been started by the end of 2010. By the beginning of 2018, 25 RBMPs will be ready for implementation.⁸⁹⁶ Yet, how- in reality- this will be achieved remains to be a matter of question.

Nonetheless, according to the timeframe figure included in the Draft Plan, it is understood that the implementation phase for RBPAPs will, at the same time, be

⁸⁹⁵ *Ibid.*

⁸⁹⁶ *Ibid.*, p. 14.

“planning and preparation” phase for RBMPs.⁸⁹⁷ Therefore, while implementing the RBPAPs, simultaneous activities with regard to the preparation of RBMPs will be conducted. It is also derived from the Draft Plan that, in preparation of RBMPs, an independent parallel track will be utilized. With this parallel track, which has been started in 2010, preparations of River Basin Master Plans (RBMasterPs) will be completed for all 25 river basins. RBMasterPs will provide information on present and future hydro-morphological pressures as well as propose “water resource utilization plans” and “portfolios of investments” for each river basin.⁸⁹⁸

Although the Draft Plan raises the argument that RBMasterPs would be important sources for river basin management planning process⁸⁹⁹, it does not regard RBMasterPs as an integrative part of the overall timeframe and consequently excludes both from the schedule elaborating this timeframe for implementation and from the “summary of steps and products for Water framework Directive, and supportive national actions” . This stands at odds with one of the seven risks that Draft Plan refers to, with respect to the successful realization of the Draft Plan. According to this risk, the achievement of ecological objectives may imply a standstill for hydraulic projects, particularly large-scale reservoirs.⁹⁰⁰ The fact that Turkey gives priority to water resources development works is acknowledged by the Draft Plan.⁹⁰¹ As stipulated by Article 4.7 of the WFD, exemptions from its “no deterioration” principle are possible only if due diligence would be given to show there are overriding national interests for pursuing investments; and assessments of alternatives as well as mitigation measures are taken into account. Since RBMasterPs will provide information for water resource utilization plans and investment portfolios in each river basin, they could contribute for substantiating the validity of

⁸⁹⁷ *Ibid.*

⁸⁹⁸ *Ibid.*, p. 13.

⁸⁹⁹ *Ibid.*, p. 12.

⁹⁰⁰ *Ibid.*, p. 33.

⁹⁰¹ *Ibid.*, p. 23.

new sustainable human development activities such as construction of dams and reservoirs for purposes of irrigation, hydro-power, or drinking water supply. The reference to significance of RBMasterPs in the Draft Plan falls short of this opportunity. Hence, as demonstrated by the relevant Figure in the Draft Plan⁹⁰² three basic elements which characterized the planning process proposed by Turkey for the harmonization with the WFD are discernible. The first is differentiation between the RBPAPs and RBMPs. The second element is separating 25 basins of Turkey into three groups (5+13+7) and following differentiated implementation processes in line with this grouping. The third is the differentiation of implementation processes into two as being “planning and preparation” on the one hand, and “implementation”, on the other. Therefore, the implementation of WFD in Turkey will essentially be comprised of a combination of all these three elements, for a given basin at a point in time.

Table 13. Groups of River Basins and Differentiated Implementation

Three Groups of Basins:	5	13	7
Two Types of Plans:	RBPAPs	RBMPs	
Two Phases of Implementation:	Planning and Preparation	Implementation	

Source: Own compilation based on the information provided in the Draft Plan

This type of planning process, in which priority is given to preparation of a group of 5 RBMPs at first, results in differentiation of schedules of RBMPs. Thus, while these 5 RBMPs are to be implemented for a full cycle (6 years), remaining RBMPs are to be implemented for either 4 or 5 years. This process (implementation of “first

⁹⁰² Figure 4, *ibid.*, p. 14.

generation” RBMPs) will continue up until 2021. Beginning from 2022, all 25 RBMPs are to be implemented in a synchronized manner.⁹⁰³

It is significant to note here that, the last groups of river basins, which is composed of 7 river basins; RBMPs will start to be first implemented in 2018 onwards. These river basins are the ones which Turkey seeks to invest and increase utilization of its water development potential. Thus, apparently, Turkey will delay the implementation of WFD for those basins that it plans new water related infrastructure investment.

Establishment and Implementation of a monitoring approach is the second activity listed in the Chapter 2. The Draft Plan recognizes the fact that first; a body of data should be made available so that the assessment of the present status of water bodies and the establishment of reference conditions could be made. The methodology that Draft Plan adopts for establishment of a monitoring system compliant to the WFD requirements is basically a combination of central level decisions and central preparation of monitoring plans (in cooperation with RBDs), with regional level activities which will execute these plans. It should be noted, however, that once monitoring plans are decided at the central level, bulk of the remaining works are to be done at the RBD level. The Draft Plan provides the list of RBD activities as follows:

- *Collection and compilation of existing data on water body status (including groundwater bodies)
- * Preparation of a basin monitoring plan (with the assistance of the Center), which includes trend, operational and surveillance monitoring and adheres to the guidelines of the Common Implementation Strategy.
- * Identification and installation of monitoring points
- *Sample collection
- *Analyzing of samples
- * Processing and assessment of data and reporting.⁹⁰⁴

⁹⁰³ *Ibid.*, pp. 13-14.

As mentioned in Chapter 4, Article 5 of the WFD requires preparation of a certain report, also called Characterization Report. Since this report should be published at least three years before the RBMPs' entry into force, the Draft Plan proposes the date 2013 as a deadline for preparation of Characterization Report. Anticipating the fact that data on water bodies' status may not be ready at time of preparation, the Draft Plan envisages a participatory preparation process where a certain degree of expert judgment could be used in determination of water statuses. Hence, the Draft Plan welcomes the involvement of relevant organizations and institutions in drafting process. In line with the WFD and CIS framework, this action will include designation of water bodies and description of typology; analysis of pressures and impacts; analysis of economic trends and cost recovery; register of protected areas; and significant water management issues.⁹⁰⁵

The third Chapter which contained Supportive Actions for River Basin Management Planning are not chronologically ordered in the Draft Plan because of the fact that while some of these actions is to be realized for once, while some are repetitive. The actions in this Chapter include initiation of preparation works; activities with regard to supervision, review and approval; providing of training to involved parties, making guidance material available, standardization of data management tools and formats, preparation of a national monitoring strategy, setting the criteria for environmental objectives and making assessments of the Program of Measures.

The initiation of preparation works will be started by a formal document upon the decision by the National Steering Group. This formal document will include following five points:

*The MoEF is the leading ministry for the planning exercise, and ensures active involvement of other institutions and organizations, local authorities and stakeholder representatives;

⁹⁰⁴ *Ibid.*, pp. 18-19.

⁹⁰⁵ *Ibid.*, p. 19.

- *Report on the designation of the 25 RBDs;
- *Formation of working groups per RBD composed of staff from regional institutions and organizations;
- *Formation of central working groups for the central actions described in this Draft National Implementation Plan. Again, the groups are composed across organization boundaries. The MoEF has already worked with central working groups for the Twinning Project on Capacity Building Support to the Water Sector in Turkey; and it is necessary to expand this approach for the nationwide WFD implementation;
- *Terms of reference for the regional and central working groups, which include a reference to the actions in the Draft National Implementation Plan.⁹⁰⁶

It is proposed in the Draft Plan that the coherence and quality of the 25 RBMPs will be centrally supervised, reviewed and approved. This will be the second action within the third Chapter. This action will be a continuous process during which all RBDs will be required to “participate in centrally organized coordination workshops; report annually on progress, plans, expected RBMP outcomes and difficulties faced; and incorporate central guidance in their plans.”⁹⁰⁷ In order to provide overall coordination the Draft Plan envisages setting up of “central working groups” which would be composed of MoEF staff.⁹⁰⁸ There will be short term technical working groups which will work on a clear-cut mandate given by the Coordination Group. Apart from central working groups, establishment of 25 RBD working groups, a “coordination group” which will be composed of professionals from a variety of disciplines (e.g. engineers, ecologists, economists); a “national liaison group”, which will be made up of national representatives of interest groups, including universities,

⁹⁰⁶ *Ibid.*, p. 26.

⁹⁰⁷ *Ibid.*, p. 27.

⁹⁰⁸The Draft Plan states that expansion of the central working group participation could later be considered (*ibid.*).

agricultural and industrial interest groups as well as environmental groups; and a “national steering committee”, which will be composed of high level representatives of relevant ministries and official organizations are proposed. The Coordination Group will assign responsibilities to central and regional working groups in order to ensure the “correct and coherent” implementation of the WFD. Functioning as the Secretariat of the National Steering Group, the Coordination Group will report on the overall implementation status, and prepare meetings of the National Steering Group. The major responsibility of the National Liaison Group will be to provide expertise and to comment on WFD implementation. The National Steering Group, convening periodically, will supervise the overall implementation process of the WFD and will take policy decisions regarding implementation.⁹⁰⁹.

⁹⁰⁹ *Ibid.*, pp. 28-29.

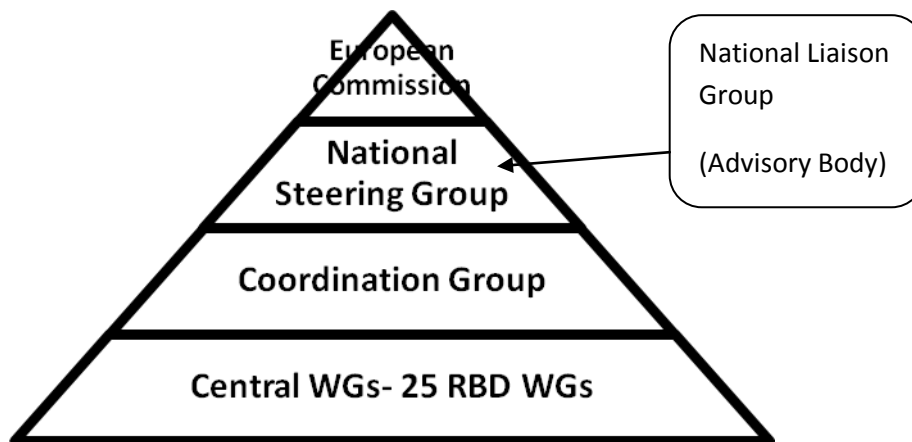


Figure 12. Proposed Organizational Setting for WFD Implementation

Source: Own configuration, based on Republic of Turkey, The Draft National Implementation Plan, p. 28.

The National Steering Committee (“Su Kalitesi Yönetimi Yönlendirme Kurulu”, as named in Turkish) was founded on August 18, 2010, through a Circular by the Prime Ministry⁹¹⁰. The Committee will be presided by the Minister of Environment and Forestry and will include high level (representation on the level of Deputy Undersecretary or General Secretary, at minimum) representatives from the ministry of Interior, Ministry of Foreign Affairs, Ministry of Health, Ministry of Agriculture and Rural Affairs, Ministry of Industry and Trade, Ministry of Energy and Natural Resources, Ministry of Culture and Tourism, State Planning Organization, General Secretariat for EU Affairs. According to the Circular, the Committee shall convene at least two times annually. The secretariat services, as well as implementation and coordination of the decisions taken by the Committee shall be the responsibility of the General Directorate of Environmental Management, of the Ministry of Environment and Forestry.

⁹¹⁰ Official Gazette No. 27676, 18.8.2010.

The first meeting of the Committee was held on April 13, 2011. The preparation of a Strategy Document on Water Quality Management was agreed in this meeting. Also, it was decided that River Basin Action Plan would be updated with participation of all relevant organizations; that all relevant organizations would issue internal circulars for taking necessary measures; and that priorities of River Basin Protection Action Plans would be taken into consideration in decisions regarding the planning of environmental infrastructure investments and related state subsidies.⁹¹¹

Another action in this Chapter is to provide training to involved parties. According to the Draft Plan, parties include members of central and regional working groups, experts from laboratories, universities, representatives from interest groups, and representatives from implementing organizations such as MARA. Within the framework of this action, a project called “Training of Trainers” was started in late 2010. It is anticipated by the Draft Plan that this project could stimulate the process of river basin management planning.⁹¹²

The study on the guidance material and examples will be one of the steps to be taken in the structure of the second Chapter activities. Common Implementation Strategy (CIS) guidance documents will be utilized and adapted to Turkish case as deemed necessary. Dealing with the guidance material, the Draft Plan attributes importance to the necessity that external expertise (from universities and NGOs) should also be included in the *ad hoc* working groups which will be established at the central level with an aim of elaboration of the guidance material.⁹¹³

⁹¹¹http://www.cevreorman.gov.tr/cob/haberduyuru/guncelhaber/11-04-13/Su_Kalitesi_Y%C3%B6netimi_Y%C3%B6nlendirme_Kurulu_%C3%87al%C4%B1%C5%9Fmal ar%C4%B1na_Ba%C5%9Flad%C4%B1.aspx?sflang=tr, accessed on 24.04.2011.

⁹¹² Republic of Turkey, *op. cit.*, “Draft National...”, p. 29.

⁹¹³ *Ibid.*, p. 30.

Development of standardized tools and formats is another step to be taken with respect to Chapter 3. As main standard tool to be developed, the Draft Plan mentions the development of a tool for the Objectives and Program of Measures. This tool will be used in calculation of the costs as well as pressures on water bodies. According to the Draft Plan, this tool could be developed by a small group composed of two members, and later be tested in particular RBDs.

Acknowledging the fact that monitoring is one the most challenging parts of the WFD, the Draft Plan mentions the initiation of a national monitoring strategy as one of the supportive actions within the Chapter 3 activities. A pilot project on this issue is underway. In late 2010, a Twinning Project on Capacity Building on Water Quality Monitoring is expected to start. Financial support for this project has already been ensured by the MoEF.⁹¹⁴ In order to help achieving the requirements of the WFD in terms of monitoring, a branch is established within the Environment Reference Laboratory (“Çevre Referans Laboratuvarı” in Turkish). To recapitulate, a new Twinning Project focusing on monitoring have started in 2010, and this new branch will be main responsible for conducting this project. This project will last for three years and expected to be completed in the end of 2013.⁹¹⁵

Given the lack of biological water quality monitoring and criteria, river basin districts will likely find it difficult to establish objectives for the water bodies. It is stated by the Draft Plan that central working groups which would study on respective guidance documents will contribute to RBDs in overcoming this difficulty. The Draft Plan reiterates that the actions to be taken by central working groups for developing standardized tools and formats will also help RBDs in this respect.

Assessments of Program of Measures for all RBDs will be another action listed within the supportive actions chapter (Chapter 3). A Regulatory Impact Assessment

⁹¹⁴ *Ibid.*, p. 31.

⁹¹⁵ *Ibid.*, p. 14.

document, which will also formally adopt the Draft National Implementation Plan, will be used to determine costs and benefits of the proposed actions. Within this context, the impacts of RBMPs on wider environment will be analyzed.

The Draft National Implementation plan could be regarded as an “anchor” for WFD implementation process in Turkey. Relevant authorities will take it as a reference document for further work. Public authorities on national, regional and local levels are obliged to perform specific tasks in accordance with this Plan. Therefore, the Draft Plan has a great potential, on the rhetorical level, for initiating the WFD tasks on a number of levels. This potential will be realized when consideration is given to particular roles and responsibilities of relevant organizations, and timetables as defined in the Draft Plan.⁹¹⁶

7.2.8. The EU Twinning Project “Capacity Strengthening and Support of Implementation of the Nitrates Directive in Turkey” (TR 2007 IB EN 01)

The EU has been taking measures in order to deal with nitrogen pollution in waters for the last two decades. Therefore, one of the parts related of the water quality *acquis* has been the legislation on pollution caused or induced by nitrates. The "Directive 91/676/EEC of the Council of European Communities concerning the protection of waters against pollution caused by nitrates from agricultural sources", also known as the “Nitrates Directive” was adopted on December 12, 1991.

Main objective of the Directive is reducing and preventing water pollution caused or induced by nitrates from agricultural sources.⁹¹⁷ According to the Nitrates Directive

⁹¹⁶ Vakur Sümer, “EU’s Water Framework Implementation in Turkey: The Draft National Implementation Plan”, *ORSAM Water Research Program*, Report No. 1, March 2011, p. 21.

⁹¹⁷ Directive 91/676/EEC of the Council of European Communities concerning the protection of waters against pollution caused by nitrates from agricultural sources, Article 1.

each Member State has to establish a code or codes of “good agricultural practice”, which has to be implemented by farmers on a voluntary basis.⁹¹⁸ The Nitrates Directive also states that Member States shall, for the purpose of realizing the objectives of the Directive, establish “action programs” in respect of designated “vulnerable zones”.⁹¹⁹ An action program may relate to all vulnerable zones in the territory of a Member State or, where the Member State considers it appropriate, different programs may be established for different vulnerable zones or parts of zones. The implementation process shall be conducted in accordance with the principle of public participation.⁹²⁰

In Turkey, a By-law relevant to Nitrates Directive, namely “By-law on the Protection of Waters against Nitrate Pollution Caused by Agricultural Resources” was put into force on February 18, 2004. Yet, it is acknowledged that the By-law was not fully in compliance with Nitrates Directive. Thus, a study was still necessary in order to identify the gaps between the Nitrates Directive and Turkey’s By-law on Nitrates Pollution (2004). The transposition is, thus, partly completed, and it is declared by Turkey that the full transposition will be completed no sooner than 2013.⁹²¹

Meanwhile, despite the partial transposition, Turkey took a step in order to facilitate an implementation process of the Nitrates Directive via benefitting from EU Member States’ experiences. Hence, Turkey applied for assistance in the form of an EU-Twinning Project with Austria as senior Twinning partner and the Netherlands and the United Kingdom as junior partners. Following the admission process, the twinning project, namely “Capacity Strengthening and Support of Implementation of the Nitrates Directive in Turkey”, commenced in January 2009, and it was completed in December 2009.

⁹¹⁸ Directive 91/676/EEC, Article 4.1.a.

⁹¹⁹ Directive 91/676/EEC Article 3.2.

⁹²⁰ Maureen Nowak, “Capacity Strengthening and Support of Implementation of the Nitrates Directive in Turkey”, powerpoint presentation, on file with the author, 15-16 January 2009, Ankara.

⁹²¹ Republic of Turkey, *op. cit.*, “Draft National...”.

The main objectives of the project were “to provide a sound overall framework for the upcoming work on the implementation of the Nitrates Directive with a strong focus on secondary legislation⁹²², policy options as well as inspiring examples from Member States how they have tackled the issues related to the implementation of the Nitrate Directive”.⁹²³ This project would also contribute in analysis and elimination of the legislation gaps between EU and Turkish Nitrates legislations. Knowledge transfer and exchange of experience are among the widely used media within the process of the project.⁹²⁴ The project targeted the main agricultural management institutions in Turkey: Ministry for Agriculture and Rural Affairs (MARA), Ministry of Environment and Forestry (MoeF), Ministry of Health and the Chamber of Agriculture. More specifically, the Project aimed at “strengthening the institutional and technical capacity of MARA, support in increasing farmer awareness and knowledge as well as support for knowledge transfer from MARA to MoEF and the General Directorate of State Hydraulic Works within the MoEF”.⁹²⁵ The Project also comprised study tours to Austria and the Netherlands aiming at improvement of the administrative capacity on the establishment of farmers’ cooperatives for sustainable agro-environmental activities, and fertilizer and manure management.

⁹²² It is stated in the Project web page that “the basic requirement for a secondary legislation in compliance with the EU Nitrates directive is the determination of vulnerable zones and water resources that are subject to nitrates as well as a sound assessment of the different policy options. Furthermore the codes of good agricultural practice as well as the action programs are required in the secondary legislation” (<http://www.nitrat.kkgm.gov.tr/www/EN/default.asp>, accessed on 17.04.2011).

⁹²³ <http://www.nitrat.kkgm.gov.tr/www/EN/default.asp>, accessed on 17.04.2011.

⁹²⁴ These activities include “trainings in form of workshops or seminars”. During these interactive meetings experts from Member States and Turkish stakeholders “develop roadmaps and strategies to implement specific aspects of the Nitrates Directive” (<http://www.dienstlandelijkgebied.nl/en/international-projects/twinning-project-on-implementing-the-nitrates-directive-in-turkey>, accessed on 06.05.2011).

⁹²⁵ Basri Evci, Peter van der Goot and Jan van Rheenen, untitled powerpoint presentation, Ankara 28.01.2010, on file with the author.

The Project pointed out several points to be improved with regards to the implementation of the Nitrates Directive. According to the Project results, which was summarized during the wrap-up meeting, it is necessary for central level (namely MARA and MoEF) to provide input for the whole process of implementation. It is reported that staff in Ministries are skilled, but limited in number. Besides, the Project highlighted that actual awareness level on the issue of nitrate pollution in Turkey is low, and the activities for awareness raising is not adequate and awareness raising activities are confined to particular project areas. The project results also showed that the role of NGOs in implementation process needs to be clarified and all relevant stakeholders⁹²⁶ should be included in the process.⁹²⁷

Because of the fact that the success of the implementation of the Nitrates Directive depends on the farm-level voluntary based actions at large, awareness raising activities which could be facilitated by involvement of NGOs as well as other stakeholders appear to be quite significant. For a participatory process which would include NGOs, farmers, banks, fertilizer companies, etc.; central level strategies, coordination and guidance is argued to be essential. This project contributed to the realization not only of the need for active participation of relevant stakeholders in the whole process of implementation but also the need for a central level involvement, which needs to be improved in terms of staff and technical capacities.

7.2.9. The EU Twinning Project “Capacity Building on Water Quality Monitoring” (TR 09 IB EN 03) (2010-2014)

⁹²⁶ These include banks, fertilizer companies, irrigation unions, farmer unions, village authorities etc.

⁹²⁷ Basri Evci, Peter van der Goot and Jan van Rheenen, *op. cit.*

The need for “a monitoring network system and administrative capacity building in order to prevent the deficiency of coordination between institutions and duplications” is acknowledged by the MoEF. Thus, Turkey applied for a Twinning Project in order, *inter alia*, to facilitate the implementation of monitoring requirements of the WFD. The basic purpose of the project is defined as “strengthening Turkey’s capacity to implement the EU Water Framework Directive”⁹²⁸

It is acknowledged that this project would “enhance the harmonization of environmental *acquis*, especially for WFD with regarding to surface waters, and make the decision making and the implementation more accelerated and more effective; be a good instrument for the preparation of plans and programs for the National Policy; make the supervision system more effective; be a good example for Turkey’s other basins and also neighboring countries in terms of the objectives of integrated and holistic approach; and enable better environmental management, and to protect environment.”

The project is composed of a number of activities, with an aim of reaching the following three major results: The legal and institutional gap analysis would be executed between Turkey and EU in terms of WFD requirements; capacity building of related institutions would be provided on water quality monitoring, analysis and assessment of surface water bodies in line with WFD; and a pilot implementation would be executed related to monitoring of surface water bodies in selected basins.⁹²⁹ The Ministry of Environment and Forestry, as the beneficiary of the project, will undertake complete responsibility for administration related to the preparation, technical control and implementation of the project.

7.2.10. The EU Twinning Project “Capacity Building to implement the Flood Directive” (TR10-IB-EN-01) (2010-2014)

⁹²⁸ See <http://www.mfib.gov.tr/attachments/tender/1435/102726.pdf>, accessed on 08.06.2011.

⁹²⁹ The EU Twinning Project “Capacity Building on Water Quality Monitoring” (TR 09 IB EN 03), on file with the author.

The main objective of this project is declared as “to reduce the adverse consequences of flood events for human health, environment, cultural heritage and economic activity by setting out a framework for the assessment and management of flood risk”. The General Directorate of State Hydraulic Works (DSİ) is the main beneficiary of this project. The project would contribute to improving the administrative and technical capacity of DSİ with a view of transposing and implementing Flood Risks Assessment and Management Directive (2007/60/EC) (also known as Flood Directive). In addition, the project in question will assist in raising the awareness of interest groups (local authorities, industrialists, farmers, tourism sector, general public etc.) at the pilot basins to be selected in the project on the EU Flood Directive and the requirements thereof.

As the Flood Directive is a new directive, the project will shed light on its relationships with other directives under the Environment Chapter in the process of Turkey’s alignment and implementation of EU legislation. Furthermore, trained staff and documents produced by project will help continuation of the studies both in regional directorates located in the basins and at DSİ headquarters.

Within the framework of this project, which will be completed in 2014, transposition and implementation dates regarding the Flood Directive will be determined, and assessment of the preliminary flood risks, preparation of the flood hazard and risk maps, and preparation of the Draft Flood Risk Management Plan for a pilot basin will be conducted. Presumably, one of the most important outputs of this Twinning Project would be the implementation of the Flood Directive in a pilot basin, namely “Batı Karadeniz” (Western Black Sea) River Basin. Another significant output would be the development of National Implementation Plan for the Flood Directive in Turkey through Regulatory Impact Assessment Methodology. Therefore, a regulatory impact assessment report for the Flood Directive would be drafted at the end of project.

7.2.11. The EU Twinning Project “Alignment in Bathing Water Monitoring” (TR10-IB-EN-02) (2010-2014)

The first Council Directive concerning the quality of bathing water 76/160/ EEC has been transposed to the Turkish Legislation by the Ministry of Environment and Forestry by the By-law on Bathing Water Quality, which was published in the Official Gazette No. 260489, in February 2006. The Provisional Article 1 of the By-law on Bathing Water Quality defines a 10-year transition period to meet the guide values that are determined for total coliform and fecal coliform with regard to the microbiological parameters pertaining to bathing waters.

The By-law on Bathing Water Quality defines the competent authorities that are responsible for monitoring and inspection of bathing waters, preparing permits for discharges to these waters, and preventing pollution in those areas. Monitoring activities in bathing and recreational waters are carried out by the Ministry of Health. However, the Ministry of Environment and Forestry has the right to perform monitoring activities in those waters if required. In lake and sea coasts that are conventionally used by a large number of bathers in the bathing season, the Provincial Health Directorates of the Ministry of Health are carrying out microbiological monitoring studies at sampling points that are determined by the Commission established in accordance with the By-law on Bathing Water Quality. The Provincial Health Directorates of the Ministry of Health also determine the bathing water sampling schedules for bathing season before the season. The Ministry of Health sends the results of the monitoring activities to the Ministry of Environment and Forestry. When the bathing and recreational water monitoring results reveal that there are deviations from the parameter values, the Ministry of Environment and Forestry is doing the necessary inspections to prevent pollution in source. On the other hand, in accordance with the By-law on Bathing Water Quality, inspection and monitoring rights of authorities defined in the By-law are reserved. In this scope, in order to protect environment and public health, these authorities may take preventive measures for potential pollution in bathing and recreational waters.

The second and the new European Directive 2006/7/EC concerning the management of bathing water quality and repealing Directive 76/160/EEC was published on 15 February 2006. A period until 31 December 2014 was given to the Member States for the implementation of it. However The Member States shall bring into force the laws, by-laws and administrative provisions in order to comply with this Directive by 24 March 2008.

Although the main objectives of the two Directives are to safeguard public health and protect environment from pollution, with the new Directive not only the new topics such as bathing water profiles, cyanobacterial risks, public participation, cooperation on transboundary waters; but the new bathing water quality classification through the monitoring of the parameters (intestinal enterococci, Escherichia Coli) will be introduced as well.

The transposition of the new Directive to the Turkish legislation will be done by the Ministry of Health so that Ministry of Health will be the responsible institution. It is declared by Turkish authorities that, because of the lack of technical background and experience about the new content of this new Directive; provision of technical assistance is essential for transposition and implementation of the Directive.⁹³⁰

7.2.12. Project on Capacity Improvement for Flood Forecasting and Flood Control in the TR-BG CBC Region (TR0602.15) (2007-2011)

An EU funded project under the Cross-border Cooperation Program namely "Capacity Improvement for Flood Forecasting and Flood Control in the TR-BG CBC Region" has been carried out by DSİ. The purpose of this Project is to reduce the number of accidents, injuries, deaths, and economic losses caused by floods via

⁹³⁰ The EU Twinning Project Alignment in Bathing Water Monitoring (TR10-IB-EN-02), on file with the author.

taking prevention measures in the Turkish- Bulgarian border region. In this framework, the following activities have been carried out:

- “1. Establishment of flood forecasting and early warning system for the TR-BG cross-border rivers.
2. Delivery, installation, putting into operation, testing and calibration of automatic hydro-meteorological stations with real time data transmission facilities at 4 certain locations.
3. Regulation of River Bed in Meriç River and opening a connection channel between Meriç (Maritza) and Tunca (Tundja) Rivers.”⁹³¹

Therefore, this project, with a rather narrow focus in terms of objective and geographical scope, was aiming at neither the transposition of Flood Directive nor the implementation of it. However, the benefits of the project are well recognized in Turkey. It is reported by DSİ authorities that since the real-time flood forecast data is transferred to people in the region online, the casualties and economic losses caused by floods in Edirne region are reduced dramatically.⁹³²

7.2.13. Mitigating Flood Risk in the Flooded Areas in the GAP Region (GAPSEL) in Turkey (2007-2010)

The GAPSEL Project aims at mitigating the negative outcomes of the floods which are intensified in recent years in the South Eastern Anatolian Region via “introducing long term solutions for mitigating flood risk”. The project has been carried out by the GAP Regional Development Administration.

⁹³¹ Capacity Improvement for Flood Forecasting and Flood Control in the TRBG CBC Region, available online at <http://www.dpt.gov.tr/bgyu/abbp/cbc/Turkiye-Bulgaristan-SOI.pdf>, accessed on 06.05.2011.

⁹³² Sadettin Malkaralı, Investigation and Planning Branch Manager, DG XI, DSİ, Edirne, personal interview, Edirne, October 2010.

In 2006, within the scope of EU National Pre-Accession Financial Assistance Program, the project for “Mitigating Flood Risk in the Flooded Areas in GAP Region” has been brought to the agenda. Mitigating Flood Risk in the Flooded Areas in GAP Region Project (GAPSEL) covers six provinces in the district, which are most affected by the flood. These are Batman, Diyarbakır, Mardin, Siirt, Şanlıurfa and Şırnak provinces. Technical assistance shall be provided in Adıyaman, Gaziantep and Kilis provinces.

The main targets of the project are to develop the capacities of the local administrations and non-governmental organizations about the flood management and flood prevention and to decrease the damages caused by the flood in infrastructure, economic and social points of view. The project consisted of two different grant scheme: 1. Physical Planning and Infrastructure component (12,8 mil. Euros), 2. Social Support component (2,2 mil. Euros).

Apart from these initiatives and projects discussed above, there are a number of new steps being taken by Turkey aiming to support WFD implementation. For instance, a strategy document called “A Plan for Setting up Necessary Administrative Capacities at National, Regional and Local Level and Required Financial Resources for Implementing the Environmental *Acquis*” was published in September 2009. This plan set out a strategy for achieving “good status” by 2027. Yet, interim evaluations may indicate the need to extend the year for achieving good status by another 6 year period i.e. 2033 (Ministry of Environment and Forestry 2010b, 4).

As another step, on 30 June 2009, a Circular on By-law of Determination of Special Provisions on Basins where Water Pollution Control was published. Despite the Water Pollution Control By-law is being implemented, there are some problems in preserving the existing conditions of water bodies such as reservoirs. In order to protect such water resources, “special provisions” are determined following a series of scientific studies analyzing the particulars of the water body and its basin.

7.3. An Analysis of the Projects, Programs and Initiatives

It has been demonstrated by the presentation above that Turkey's efforts for harmonization with the WFD mainly consisted of pilot projects, and changes in legislation focusing on different aspects of water management policy. In this section of the Chapter, firstly the pilot projects, and secondly, the legal changes will be analyzed.

With respect to pilot projects, the real effect they created varies considerably. While some resulted only in production of reports with little influence on triggering practical changes, some of them generated significant results associated directly with the process implementation. For instance, the MATRA project within the Pre-Accession Program framework (2002-2004), produced a draft RBMP for the Büyük Menderes River Basin. Although it was not endorsed officially by Turkish authorities, it could still be regarded as significant. It is significant mainly because, through this draft RBMP, the WFD was -for the first time- implemented in terms of one of the WFD's substantive elements, i.e. the preparation of RBMP, in an entire river basin district in Turkey. With its operational elements, this project enabled authorities to recognize the difficulties of implementation lying ahead with respect to river basin management approach. As the RBMP's drafting process includes partial implementation of several other substantive elements of the WFD, such as public participation, monitoring, etc.; this project had also become an exercise which made the challenges related with these elements more visible. Thus, the outputs of this project emphasized the difficulties associated with integrated nature of river basin management.

Apart from the issue of the changing degrees of the effect of these pilot projects, the overall picture provided by the projects indicate an observable trend which is characterized by increasing level commitment of Turkey concerning the implementation of the WFD. To illustrate, the history of changes in Turkish official attitude with regard to the deadline for reaching the WFD objectives could be given as an example, where a three-staged process has been experienced. As already

discussed, the deadline for Turkey's harmonization with the WFD was not mentioned until 2009. This forms the first stage. With the Strategy Document, the deadline of 2027 was first mentioned. This is the second stage. This step could partly be attributed to the Turkish efforts to secure the inception of the negotiations on the Chapter of Environment.⁹³³ The Strategy Document was published in September 2009. The full name of the document is "Plan for Setting up Necessary Administrative Capacities at National, Regional and Local Level and Required Financial Resources for Implementing the Environmental *Acquis*".⁹³⁴ This document was prepared as a guideline for implementation for the whole environmental *acquis*, including water related legislation. In December 2009, negotiations on the Chapter on Environment have officially been started. In the third stage, the aforementioned deadline was reinforced by the Draft National Implementation Plan. The Draft Plan provided a detailed list of required steps and a concomitant schedule to proceed implementation process.

The growing degree of commitment also discloses itself in the increasing number of Twinning Projects after 2009. Following the official opening of the negotiations on the Environment Chapter, one can notice a rise in number of projects aiming at facilitation of transposition and implementation of EU water directives. Whereas, until 2009, only two Twinning Projects were being implemented; three Twinning Projects have started in 2010.

For many cases, most significant outputs of pilot projects have been production of a number of reports, which basically defined the gaps between the Turkish and European water legislation and pointed out the necessary changes to be realized in Turkish legislation for adaptation to the WFD. Thus, in general, these pilot projects could not be regarded as ends in themselves. Indeed, these projects will likely create their genuine impact when the recommendations contained in them are put into effect

⁹³³ Besides the provisions on WFD, Turkey has listed its objectives for complying with the Environmental Chapter at large in this document.

⁹³⁴ Published by Republic of Turkey, emphasis added.

with an aim of implementation. However, this should not preclude the actual impact they have already made. These projects, with a positive perspective, could be evaluated as fire-starters of the harmonization process in Turkey as well as encouraging beacons which will guide further Turkish efforts.

The most comprehensive step taken hitherto is the Twinning Project “Capacity Building Support to the Water Sector in Turkey” and its output, namely the Draft National Implementation Plan. Although the Strategy Document in 2009 mentioned a date for reaching the objectives of the WFD for the first time; it has been the Draft National Implementation Plan that elaborated this deadline and included somewhat detailed provisions on the steps needed to be taken and the timetable related with the proposed deadline.

With respect to legal changes, which comprise the “transposition” stage of the harmonization process, it could be argued that Turkey is on a faster track. Only around 1/3 of the water related Directives are pending for transposition. That is to say, out of 22 Directives, only 7 of them have not yet been incorporated into Turkish legislation. This picture reveals that Turkey demonstrates a high-level of commitment in terms of transposition of the European Directives. But the impact of these transpositions, i.e. their translation into enforcement is questionable. It is not only related with the “new” elements they brought to Turkish legislation, but also related with the long lasting shortcomings in Turkey’s water management policy setting with regard the issue of enforcement . As demonstrated in the Chapter..., for instance, although the rules and procedures contained in Turkish legislation provided sufficient legal grounds for controlling the wastewater discharges by industrial facilities, it has usually been the case that the legal provisions did not match with the actual enforcement.⁹³⁵ In other words, enforcement often fell short of what had been envisaged by the relevant legislation.

⁹³⁵ Bahattin Yılmaz, Branch Manager of the Planning Department, DSİ DG XI, Edirne, personal interview, Edirne, October 2010. Also, İsmail Ülkü, Branch Manager of Operation and Maintenance Department, DG XI, DSİ, Edirne, personal interview, Edirne, October 2010.

It has been stated, regardless of the WFD, and indeed before the adoption of the WFD, that the real implementation of river basin management plans could be regarded as “the great challenge of modern integrated water management”.⁹³⁶ The central reason for this is mentioned as to be the “difficulty of joint action”. This difficulty arises due to the need to reach a compromise among a range of stakeholders from many sectors with diverse interests. A number of levels are also need to be incorporated in the process: local, regional, national, international (transboundary river basin management) and European. The result, then, would be an endeavor to realize “multi-level, multi-actor, multi-sectoral governance”.⁹³⁷ The process would entail complex negotiation and bargaining, trying to integrate environmental, economic, and social aspects with the technological ones, with an aim of “making things happen in real situations”⁹³⁸. This complexity additionally increases in the transboundary river basins⁹³⁹. This will be explained next.

To illustrate the additional challenges that transboundary river basin management brings about, a case in synopsis will be briefly discussed here. Dealing with the differences among responsible public authorities of riparians in the context of a transboundary river basin, also called “zipper problem”, is one of the major problems. This is mainly due to the fact that since the correct negotiation partner could not easily be found, creation of coordination mechanisms between counterparts in different countries becomes challenging. For instance, in the Netherlands, the central government is the major authority for the water policy, while in Germany the authority rest with the Lander (States in Germany).⁹⁴⁰ Apart from this organizational

⁹³⁶ Wim Van Leussen, *Public Policy Aspects of Integrated Water Management: Implementation of Management Plans for the restoration of aquatic ecosystems, particularly estuaries*, Virginia Polytechnic Institute and State University, Netherlands School of Government, and Ministry of Transport, Public Works and Water Management, the Hague, 277 pp.

⁹³⁷ Win van Leussen, Erik van Slobbe and Georg Meiners, *op. cit.*, p. 17.

⁹³⁸ *Ibid.*, p. 13.

⁹³⁹ *Ibid.*, pp. 2-3.

⁹⁴⁰ *Ibid.*, p. 10.

difficulty, political and cultural difficulties are also cited with regards to Dutch-German cross-border water management. Not only political ambitions with respect to WFD implementation differ in two countries, but also the time of the start of political discussions varied. While political debate in Germany gained momentum only after the technical works had been completed, political discussions are incorporated in earlier technical phase of implementation in the Netherlands. In short, political differences have potential add more complexity to transboundary river basin management in the context of WFD. Cultural differences between two countries are another set of notable factors in increasing the complexity of the transboundary water management. For instance, whereas a hierarchical process of decision making prevails in Germany where the discussions are coordinated by the Ministry of Environment in the center, the decisions in the Netherlands are principally taken based on consensus (consensual approach) within a setting characterized by joint meetings of officials from local, regional and national level organizations.⁹⁴¹

7.4. Conclusion

To conclude, it is argued in this Chapter that the different projects, programs and initiatives which are aiming at facilitation of the WFD harmonization process in Turkey have contributed to changes in three dimensions of Turkey's water policy. However, the influence of these projects in altering the legal discourses, policy networks and institutions varied significantly. While these projects appeared to have a strong effect in catalyzing the legal changes and changes in configuration of actors in policy networks (i.e. actors' positions and roles in water policy making)⁹⁴², their influence on modifying the governing "soft" institutional arrangements of water policy in Turkey is not evidenced.

⁹⁴¹ For the whole discussion on the issue, see *ibid.*, pp. 1-22.

⁹⁴² Projects' influence on legal changes is exemplified by the relatively rapid transpositions of water Directives. Projects' influence on policy networks is exemplified by establishment of several new organizations with significant mandates (e.g. Environmental Reference Laboratory, the National Steering Committee; proposal of establishment a Division of Environmental Administration within MoEF structure with a clear mandate to coordinate WFD matters).

The second point is that the number of projects with an aim of contributing to WFD harmonization process in Turkey has been increasing after the Chapter on Environment had been opened in December 2009. Thus, relations between Turkey's organizations responsible from water management policy and European counterparts (water related organizations in Member States, the European Commission, etc.) have presumably been intensified. From this point, it could be argued that the level of commitment to WFD institutions (public participation, river basin management, full cost-recovery etc.) in a number of Turkey's water related organizations (DSİ, MoEF, MARA, SPO, Ministry of Health) would likely increase in parallel to the process of intensification relations which is demonstrated by increasing number of projects. This, in turn, could contribute to the alignment of water related institutions prevailing in Turkey with those of the WFD in the long run.

CHAPTER 8

Conclusion

This dissertation has focused on the implications of Water Framework Directive of the European Union on Turkey's water management policy. It tried to analyze the impact of WFD in various dimensions of Turkey's water management policy. The dissertation, thus, took the WFD as independent variable and WFD induced changes in Turkey as dependent variables of the study.

Water Framework Directive has become part of the EU *acquis communautaire* in 2000. According to the EU norms, for a country to become an EU Member State, it should demonstrate “the ability to take on the obligations of membership, including adherence to the aims of political, economic and monetary union and the administrative capacity to effectively apply and implement the *acquis*”.⁹⁴³

As Turkey aspires to become a Member State of the EU, it is obliged to take on the responsibilities related with transposition and implementation of the Directive. The main tasks to be done by Turkey in the framework of WFD are summarized as follows: creating a reliable inventory of water data which will be the foundation for other activities to be done within the scope of the WFD, establishment of a proper monitoring system, setting up pricing systems for all sectors taking into account of the “full cost recovery” principle, realizing participation of all interested parties to the processes of water management, and designation of river basin management plans with a view of implementing the program of measures to reach the environmental objectives, crystallized in the theme of achieving “good status” for all

⁹⁴³http://ec.europa.eu/enlargement/enlargement_process/accesion_process/how_does_a_country_join_the_eu/negotiations_croatia_turkey/index_en.htm, accessed on 5.7.2011.

water bodies. In brief, harmonization and implementation of WFD remains to be a serious undertaking for Turkey.

In an endeavor to analyze the relationship between the WFD and Turkey's water management policy, the dissertation took the view that not only the requirements of the WFD, but also the characteristics of Turkey's water management policy should be thoroughly studied. As water management is a complex phenomenon occurring at various levels (spatial levels: local regional, national, international; administrative levels, levels related with water management aspects: quality, quantity; etc.), an analysis of water management policy in a given unit could be decomposed into several dimensions for capturing better the differentiated characteristics of each dimension. This type of analysis will enable one to determine the implications of WFD for each dimension, instead of reaching generalized conclusions on the whole of water management policy.

Within this context, the dissertation has adopted the view through which water management policy in Turkey is decomposed into three dimensions: (a) policy networks, (b) legal discourses and (c) institutions. Legal discourses are to mean water related legislation and main attributes they demonstrate. Institutions are defined as arrangements including both water management policy organizations *and* the governing institutionalized practices in water management policy. In the literature, one way of conceptualizing these two types of arrangements are naming them "hard" and "soft" institutions, respectively. In other words, organizations, which are tangible institutional arrangements, form "hard" institutions; while intangible, yet powerful, institutionalizations are called as "soft" institutions. Examples for the first type include DSI, State Planning Organizations, Ministries, etc. Examples for "soft" institutions are pricing, monitoring, river basin management, participation, and transboundary waters.

It is hypothesized in the dissertation that WFD's implications will vary according to the dimension in question. As preliminary evidence suggests, Turkey would remain on a fast track in terms transposition, i.e. changing its water related legislation as to

adapting to WFD requirements. Similarly, policy networks which are the representations of the interrelations among actors involved in water management policy may indicate a more responsive outlook. In other words, Turkey shows a considerable degree of activity in adapting its water management policy setting in accordance with changing priorities and targets. On the other hand, the dimension of institutions reveals a bifurcated picture. While hard institutions are easier to adapt, soft institutions (institutionalized practices) cannot be changed easily and fast. In this respect, most of the challenging part of WFD harmonization is related with the expected changes in the soft institutions.

In search of testing this hypothesis, several research questions were needed to be asked. In light of this, chapters of dissertation are formulated around the themes that these questions relate to.

First of all, what in essence, will the EU membership bring to Turkey's water management? A search for answering this question is associated with a discussion of what the water policy in the EU is about. Therefore, the WFD itself, which is up-to-date umbrella legislation on water management, was needed to be analyzed, via presentation of its basic elements, priorities and concepts. However, it should be born in mind that, WFD is *the* recent embodiment of European water policy. In other words, WFD is a policy outcome which was preceded by a history of water related legislation in European context which started in early 1970s. Thus, the antecedents of the WFD, namely the first two waves of European water legislation needed to be discussed, as well. Furthermore, all these water legislation, including the WFD, is developed within the framework of the European environmental policy. In this respect, the European water policy should be assessed in conjunction with the environmental policy in the EU. Hence, from a broader perspective, for a more complete understanding of the WFD, EU environmental policy should be studied, since the European water policy has emerged out of the environmental policy of the Union. Placing EU water policy within the realm of environmental policy is also insightful in the sense that this perception emphasizes the "quality" related aspects of water management. Thus, the environmental orientation of European water policy is

emphasized. In line with this framework, WFD treats “water quantity” as an ancillary element of reaching good water status.

Within this context, while chapter 2 focused on the origins and development of the European environmental policy, the chapter 3 presented a discussion on the development of a European body of legislation on water, including the WFD.

Chapter 2 on European environmental policy revealed the finding that the relative flexibility of the European environmental legislation (along with the principle of subsidiarity), and the impermeability and resilience of some of the national traditions and institutions⁹⁴⁴ enable Member States to perpetuate their national priorities and approaches, along with the ever growing environmental policy at the EU level. For the critics, this means an “implementation problem” for the EU environmental policy.⁹⁴⁵ The normative element in the EU environmental policy is also a matter of debate. A balance was tried to be found between the dichotomy of environmental protection and goals of economic development and growth. The findings of the chapter is significant in the sense that the discussions summarized above and most of the characteristics of EU environmental policy is being reflected in EU water management policy, including the WFD. Therefore, the chapter highlighted the distinctive attributes of the setting from where EU water policy had flourished.

Chapter 3 on WFD discussed the adoption and implementation processes of the WFD, making references to its basic provisions and concepts. Supplementary texts, such as Guidance Documents within the framework of Common Implementation Strategy (CIS), and Communications emanating from the European Commission were also used to substantiate the underlying principles of the WFD. This chapter has demonstrated that the WFD rather appears to be a compromised text among a number of differently interested parties, instead of being a legislation aiming to

⁹⁴⁴ For instance, according to Henry Buller et al., difficulties in implementing environmental rules on “agricultural practices” indicate the limitations of the regulatory style, and normative notion of environmental quality at the European level. (Henry Buller, Philip Lowe and Andrew Flynn, *op. cit.*, pp.175-195).

⁹⁴⁵ Christoph Knill and Duncan Liefferink, *op. cit.*, p. 214.

improve water quality based on a pure scientific approach. The Chapter also presented major critical views on the WFD. This presentation has put emphasis on the considerable level of flexibility that WFD gives for Member States. The apparent ambiguity in several concepts and anticipated level of protection; and the large number of exemptions with a wide scope of application are central to these critiques. A discussion of these clauses of exemptions was also provided in order to give an understanding on how these exemptions could result in continuation of existing practices in many countries. Furthermore, in light of the discussion on various facets of the WFD, the actual implementation practices across the EU were studied. The half-way implementation reports during which several steps of implementation⁹⁴⁶ have been realized in Member States reveal that implementation of the WFD is far from being completely satisfactory. According to dissertation's argument, two factors play significant roles in this phenomenon. Firstly, it is associated with the general level of the flexibility embedded in the WFD. In line with the context-oriented governance approach prevailing in recent EU environmental legislation for the last two decades, WFD gives a substantial room of maneuver and interpretation for Member States. In other words, the WFD is to be regarded as a reflection of the current trends in broader context of the environmental legislation in the EU. And secondly, it is associated with the resilience of major water institutions in Member States. Chapter on EU Environmental Policy demonstrated that both trends are noticeable in setting of EU environmental legislation and its impact on national environmental law.

Secondly, where does Turkey stand in water management paradigms continuum? And, how has it evolved? Analyses that these questions require would enable one to compare Turkey's water management policy with EU WFD. To provide a plausible answer these questions, a conceptual and historical analysis of Turkey's water management policy should be made. Water management in Turkey will be disaggregated into three dimensions in order to fully capture the extent of

⁹⁴⁶ For instance, setting up necessary institutional arrangements, characterization, drafting river basin management plans.

continuities and changes in the water management policy of the country. The chapter focusing on legal discourses in Turkey's water management policy (Chapter 4) provided a discussion of fundamental water related legislation. The methodology in analyzing the water related legislation in Turkey in this Chapter is an examination of the discourses embedded in legal texts. Legal texts are regarded as important sources for discourse analysis. Through analysis of legal discourses in water management policy of Turkey, three successive phases have become recognizable. The first phase (first 30 years of the Republic) comprised framework legislation such Village Law, Law on Waters, Municipality Law etc., aiming to set water management policy on a legal ground. Construction of individual projects (dams, regulators, first irrigation systems) and the issues of public health were other two major characteristics of this phase. Second phase (from mid-1950s to 1980s) was marked by the introduction of systematic water resources development Works (establishment of DSI with the Act. No.6200). With the third phase, beginning from 1980s, issue of "water quality" began to gain prominence, along with the continued priority of water resources development (e.g. establishment of Ministry of Environment in 1991, By-law on Water Pollution Control, 1988). Implications of rapid urbanization and increasing problems of water pollution were catalyzing such a renewed focus on water. Finally, two themes have started to be more salient within the Turkish legislation: the recent legislation contained some elements of "decentralization" and "privatization".

The chapter 5 discussed continuities and changes in institutions in Turkey's water management policy. This dissertation took the term "institutions" as a concept encompassing not only tangible formations of social action like organizations, but also intangible rules of policy processes and social interactions. Within this framework, institutional arrangements were analyzed under two categories. Having regard to the relevant literature, the first category covers "hard" institutions, namely organizations; which are the embodiments of social administrative rules. Organizations are defined as groups of individuals who work toward a common goal

or objective and have common interests.⁹⁴⁷ Political parties, churches, schools, unions, or government agencies are some examples of organizations. Examples of hard institutions, with regards to the subject of this dissertation include DSI, EIEI, MoEF, MoH, SPO, etc. The second category includes soft institutions, which are the institutionalized patterns of practices. Examples to second category of institutions include pricing, monitoring, river basin management, transboundary relations and public involvement.⁹⁴⁸

It is argued in the dissertation that a considerable gap exists between the prevailing soft water-related institutional arrangements in Turkey and those proposed by the WFD. This gap comprises the main core of the WFD harmonization process that Turkey has been into since early 2000s. The institutional gap between Turkey's soft water institutions and institutional rules required by the WFD stands odd with the high level of improvement in Turkey in terms of transposition of the water related Directives. This is mainly because of the fact that institutional practices are less adaptive than legal documents. While changes in legislation could occur rapidly, changes in institutions occur incrementally. This is particularly visible to the "soft" institutions. Contrary to what has been transposed into the national legislation, changes in actual patterns of practices in pricing, public participation, transboundary relations, monitoring, and river basin management are only slowly emerging. Therefore, the institutional differences between Turkish water management policy and WFD-proposed would be the "substantive" part of the required changes. Changes in hard institutions, namely organizations, tend to be rather swift, which display a similarity with legal discourses, and as the relevant chapter shows, with policy networks.

⁹⁴⁷ For a wider discussion of the issue, see Rosalinde Klein Woolthuis, Maureen Lankhuizen and Victor Gilsing, *op. cit.*

⁹⁴⁸ Bo Carlsson and Staffan Jacobsson., *op. cit.*

Analysis of policy networks is regarded as an analytical tool through which policy outcomes are analyzed with an integrated approach. Policy network analysis taking into consideration of all relevant actors involved in water management activities, and interrelations among them could provide a genuine understanding on Turkey's water management-which was often characterized as fractionalized and complex. To put it in another way, looking at relations or some set of relations among selected actors is not enough to perceive such a system in which overlapping mandates and responsibilities said to hinder an efficient water management. Chapter 7 demonstrated that the approach of policy networks has an explanatory power with regards to changes in the web of interrelationships that these public authorities comprise. The level of change observed in the last five decades of water management policy networks in Turkey suggests that with the WFD there is an adaptive capacity in policy network, which could be an asset in course of WFD harmonization and implementation.

After analyses of the current status of legal discourses, institutions, and policy networks in Turkey's water management policy; it is necessary to distinguish the impact of WFD induced changes. In this regard, the question "what were the real effects of all the changes realized in Turkey in the name of WFD harmonization?" needed to be asked.

Three categories of efforts are recognized in this respect. The first one is the "pilot projects" which includes projects supporting harmonization in a specific location (e.g. MATRA Project focusing on Büyük Menderes Basin), or throughout the country (Twinning Project on Monitoring, 2010-2011). Pilot projects are either supported by a single country (the DEFRA supported project, 2005), or by a number of countries (Twinning Project, "Capacity Building Support to the Water Sector in Turkey", which was supported by the Netherlands, Slovakia and the United Kingdom, 2008-2009). The second category is the "legislation changes" specifically done in order to move Turkish water legislation closer that of the Union's. These include changes in existing legislation and enactments of new pieces of legislation. The third category includes the provisions that official legal documents and

independent official studies or initiatives (e.g. National Programs, Working Groups' Documents, Strategy Documents) entail with respect to water management policy area.

Influence of these projects in altering the legal discourses, policy networks and institutions varied significantly. While these projects appeared to have a strong effect in catalyzing the legal changes and changes in configuration of actors in policy networks (i.e. actors' positions and roles in water policy making)⁹⁴⁹, their influence on modifying the governing institutions of water policy in Turkey is not evidenced. The second point is that the number of projects with an aim of contributing to WFD harmonization process in Turkey has been increasing after the Chapter on Environment had been opened in December 2009. Thus, relations between Turkey's organizations responsible from water management policy and European counterparts (water related organizations in Member States, the European Commission, etc.) have presumably been intensified. From this point, it could be argued that the level of commitment to WFD institutions (public participation, river basin management, full cost-recovery etc.) in a number of Turkey's water related organizations (DSİ, MoEF, MARA, SPO, Ministry of Health) would likely increase in parallel to the process of intensification relations which is demonstrated by increasing number of projects.

To conclude, The Water Framework Directive (WFD) has been in force since 22 December 2000. The significance of the WFD is acknowledged in many studies. According to some experts, it has significance beyond the domain of water legislation in the EU. Peter Chave, for instance, has argued that the WFD appeared to be one of most significant legislative instrument in the field of water policy on international basis.⁹⁵⁰ In this framework, the Directive has been regarded as “the

⁹⁴⁹ Projects' influence on legal changes is exemplified by the relatively rapid transpositions of water related Directives. Projects' influence on policy networks is exemplified by establishment of several new organizations with significant mandates (e.g. Environmental Reference Laboratory, the National Steering Committee; proposal of establishment a Division of Environmental Administration within MoEF structure with a clear mandate to coordinate WFD matters).

⁹⁵⁰ Peter Chave, *op. cit.*, p. ix.

most significant piece of European environmental legislation ever introduced”.⁹⁵¹ Interim studies suggest that the WFD requirements remain to be challenging for many Member States.⁹⁵² Being a country which is conducting accession negotiations with the EU, Turkey is obliged to take on WFD requirements by its time of entry into the Union. Given the studies which indicate difficulties of implementation of the WFD in numerous Member States⁹⁵³, it is likely that Turkey will experience significant changes in its water management policy. The WFD will transform three dimensions of Turkish water management politics in varying degrees. As the steps that have been taken by Turkey within the WFD context indicate⁹⁵⁴, while changes in policy networks and legal discourses tend to be greater and more immediate, the changes in “soft” institutions (i.e. institutionalized arrangements and practices) will be piecemeal and gradual. Two factors are assumed to contribute this: First, there are notable exemptions in the WFD, enabling Member States to escape from some of the obligations or perpetuate the process of implementation of certain tasks. It is argued that possibilities for exemptions in the WFD context will result in unequal levels of implementation of WFD in three dimensions of water management policy in Turkey which this dissertation focuses on (i.e. legal discourses, policy networks, institutions). While policy networks and legal discourses are more prone to change; the existence of a wide-range of exemptions will give room for institutions (particularly the informal institutions, namely modes of governance, or “soft” institutions) to adapt more slowly than policy networks or legal discourses. Second is the difficulty in changing the established institutional setting. From 1950s to 1980s, there was a stronghold of “water resources development” approach in Turkey’s water

⁹⁵¹ William Howarth, *op. cit.*, p. 392.

⁹⁵² See European Environmental Bureau, *op. cit.*, “10 Years of ...”.

⁹⁵³ For discussion on implication of various WFD rules on Spanish water management policy, see Alberto Garrido and M. Ramón Llamas (eds.), *op. cit.* For a discussion on the implementation of WFD in Germany, see Insa Teesfeld and Christian Schleyer, “Germany’s Implementation of the EU Water Framework Directive – between Integration and Coordination in a Multi-level Context”, paper presented at the *ESEE 2011 Conference* at Boğaziçi University in İstanbul, June 14-17th, 2011.

⁹⁵⁴ The chapter on Turkey’s efforts for harmonization with the WFD demonstrates that Turkey swiftly transposed most of the relevant EU water quality directives between 2004 and 2006. However, the chapter also discusses the insufficiency of the practical results that these Directives anticipate.

management policy. In order to utilize the water resources potential of the country, relevant “hard” institutional setting was established and necessary legislation was adopted. This focus on water resources development concomitantly produced its “soft” institutional dimension. In other words, institutionalized practices related to pricing, monitoring, transboundary water affairs, river basin management and participation were developed in accordance with the focus of water resources development focus. Although environmental and social concerns (e.g. “water quality” aspects and participatory water management approaches) began to gain significance particularly beginning from 1980s, the “water resources development” continued to be a decisive focus of state authorities in determining the shape that water management policy is taking.

WFD has a “water quality” focus, but leaves Member States free to realize objectives of the Directive with a focus differing from the WFD adopted. In this sense, from the rhetorical perspective, it is possible for Turkey to adapt itself to WFD rules without departing from its water resources development focus. Indeed, the recent enactments of “EU-synchronized” legislation aiming improved quality of waters show that approximation to WFD rules and institutions *is* possible. Yet, altering institutions and deep-rooted practices take time and they are costly . Whether the necessary changes in soft institutional arrangements would occur without renouncing long-lasting traditions in Turkey’s water management policy remains to be seen in upcoming years

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http://www.tuik.gov.tr	internet site of Turkish Statistical Institute
http://www.tbmm.gov.tr	internet site of Turkish Grand National Assembly
www.kkgm.gov.tr	internet site of General Directorate of Protection and Control, MARA
www.analytictech.com/ucinet/	internet site of UCINET program.
http://www.resmigazete.gov.tr	internet site of Official Gazette

APPENDIX A

VITA

VAKUR SÜMER

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EDUCATION

2004-...	Middle East Technical University, Ankara Department of International Relations, Student of Doctorate (High Honour Student)
2002-2004	Middle East Technical University, Ankara Department of International Relations, Student of Master in Science (High Honour Student)
1997-2002	Middle East Technical University, Ankara Department of International Relations, Undergraduate Student (Honour Student)
1997	ÖSS and ÖYS (University Entrance Examinations in Turkey), among the top 1% students

SKILLS

Computer	Windows applications, Internet applications, Microsoft Office
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(Word, Excel, Powerpoint)

Foreign Language English (advanced), Spanish (beginner)

Driving Licence B type (drives car and minibus)

EXPERIENCE

- 3-4 December 2010 Participation and Presentation at the GAPSEL Conference, Şanlıurfa, Turkey.
- 5 October 2010 Participation at the GAPSEL Workshop on Sustainability, Şanlıurfa, Turkey.
- 24 March 2010 Presentation at the “II. Ulusal Taşkın Sempozyumu”, Afyonkarahisar, Turkey.
- 16-20 February 2010 Paper Presentation at the 51th Annual International Studies Association (ISA), “Theory versus Policy? Connecting Scholars and Practitioners”, New Orleans, LA, USA.
- 17-28 January 2010 Participation at the Advanced Training Course organized by Swedish International Development Cooperation Agency (SIDA) and The Stockholm International Water Institute (SIWI), Aleppo, Syria.
- Nov. 2008-July 2009 Researcher at the Environmental Science and Policy Department, University of California, Davis, CA, USA.
- 23-26 July 2008 Paper presentation at the international conference 2nd Global International Studies Conference: What Keeps Us Apart? What Keeps Us Together?, Ljubljana, Slovenia.
- 19-24 February 2007 Paper presentation at the international conference "Environment: Survival and Sustainability" organized by The Near East University, Nicosia, Cyprus.
- 21-23 September 2006 Paper presentation at the international conference "Third Pan-European Conference on EU Politics" organized by ECPR-Standing Group on the European Union, İstanbul, Turkey.

- 15-17 June 2006 Paper Presentation at the International Conference organized by “the Middle East Technical University, Department of International Relations” with the title “International Security: Old Issues and New Challenges”, Ankara, Turkey.
- 12-14 May 2006 Paper Presentation at the International Symposium organized by “Bilim ve Sanat Vakfı” (the Foundation of Science and Art) with the title “Civilizations and World Orders”- “Medeniyetler ve Dünya Düzenleri”, İstanbul, Turkey.
- 21-23 March 2006 Paper Presentation at the Conference organized by “Türkiye Mimarlar ve Mühendisler Odaları Birliği”(Turkish Union of Architects and Engineers) with the title “Su Politikaları Kongresi” (Congress on Water Policies), Ankara, Turkey.
- 22-29 January 2006 Participation at the education program co-organized by “Doğal Hayatı Koruma Vakfı-Türkiye” (WWF-Turkey) ve “UNESCO-IHE” with the title “Integrated River Basin Management Training Course” , Antalya, Turkey.
- 24-27 August 2005 Paper Presentation at the International Conference co-organized by “Bilgi Üniversitesi”, “World International Studies Committee” and “European Consortium for Political Research” with the title “WISC First Global International Studies Conference”, İstanbul, Turkey.
- 4-29 July 2005 Participation at “Avrupa Hukuku ve Uluslararası Hukuk Yaz Akademisi” (Summer Academy- European Law and International Law) organized by “Yeditepe University”, İstanbul, Turkey. (With a grant of approx. 500 Euros)
- 30 June-2 July 2005 Paper Presentation at the International Conference organized by “the Middle East Technical University, Department of International Relations” with the title “Neighbourhood: Past, Present, Future”, Ankara.
- 16-19 June 2005 Paper Presentation at the International Conference organized by “Yaşar University” with the title “International Conference on Business, Economics and Management”, İzmir.
- 2005 “Türkiye’nin Karşılaştırmalı Göç-Mülteci Politikasının Analizi”(A Comparative Analysis of Turkey’s Migration-Refugee Policies), METU Project, project researcher, Ankara.
- 2005 “Türkiye’nin Su Kaynakları Politikasına Kapsamlı Bir Bakış: Avrupa Birliği Su Çerçeve Direktifi ve Ötesi” (A Comprehensive

- Look at Turkey's Water Resources Policies: EU Water Framework Directive and Beyond), METU Project, project researcher, Ankara.
- 2005 “Avrupa Parlamentosu'nun Türkiye-Avrupa Birliği İlişkilerindeki Rolünün Analizi” (Analysis of the Role of the European Parliament in EU-Turkey Relations), METU Project, project researcher, Ankara.
- 20-28 November 2004 Participant at and Organizator of the International Workshop with the title “Regional Cooperation for Water Management”, Ankara.
- 22-24 October 2004 Paper Presentation at the International Conference co-organized by Varna and Shumen Universities with the title “Transatlantic Relations in a Changing Cultural Context”, (Article published in the Selective Conference Proceedings book), Varna and Shumen, Bulgaria.
- September 2004 Thesis submitted for the fulfillment of Master of Science with the title “An Analysis of the Actorness of the European Union in the Context of World Trade Organisation”.
- 2004-2005 “GAP’ın yerel, ulusal ve uluslararası etkileşimleri” (Local, National and International Interactions of the Southeastern Anatolia Project), scientific project funded by the state Planning Organization, project researcher, Ankara.
- 24-31 May 2003 “Uluslararası Örgütlerin Rollerini: AGİT Örneği” (Roles of International Organizations: The Example of OSCE), METU project, project researcher, Vienna, Austria.
- October 2002-March 2004 Weekly foreign policy articles in one of the local newspapers of Çanakkale called “Gazete Boğaz”.
- September 2002- .. Student Advisor, Department of International Relations, METU, Ankara.
- August 2002- .. Research Assistant, Department of International Relations, METU, Ankara.

MAJOR PUBLICATIONS

Challenges for Turkey to Implement the EU Water Framework Directive, Book Chapter in Ayşegül Kibaroglu, Axel Klaphake, Annika Kramer, and Waltina Scheumann (eds.) *Turkey's Water Policy, National Frameworks and*

International Cooperation, Springer-Verlag, Berlin, (forthcoming, 2010) (with Cagri Muluk)

“Diverging Water Management Paradigms between Turkey and the European Union”, “Water International” Journal, Special Issue December 2007, (with Aysegul Kibaroglu).

“Contending Approaches to Water Disputes in Transboundary River Basins: What can International Relations Discipline Offer? Uluslararası İlişkiler Dergisi (Journal of International Affairs), Cilt 3, Sayı 12, February 2007. (with Aysegul Kibaroglu)

Article with the title “The Interaction Between the European Union and the World Trade Organisation: A Test of International Actorness for the EU”, published in “International Journal of Business, Management and Economics, Cilt 1, Sayı 1, March 2005, EUROPEAN UNION: Enlargement, Challenges and Opportunities” .

MEMBERSHIPS

Member of International Studies Association (ISA).

Member of Environmental Studies Section of ISA.

AWARDS

TUBITAK (The Scientific and Technological Research Council of Turkey), Support Program for Participation to the Scientific Activities Abroad, 2008.

TUBITAK (The Scientific and Technological Research Council of Turkey), Publication Support, 2008.

TUBA (The Turkish Academy of Sciences), Publication Support, 2005.

APPENDIX B

TURKISH SUMMARY

Veciz ifadenin belirttiği üzere, su, hayattır. Dünya üzerindeki yaşam suyun varlığına bağlıdır. Ayrıca, pek çok ekonomik ve toplumsal amaca ulaşmada suyun önemi büyüktür. Su, çeşitli ekonomik sektör için temel bir girdidir ve sürdürülebilir ekonomik ve toplumsal gelişme için vazgeçilmez bir unsurdur. Su yönetiminin tarihi, suyun önemine koşut olarak, insanlık tarihi ile yaşıttır. Bu çerçevede, son derece önemli bir kaynak olan suyun yönetimi tarih boyunca değişimler geçirmiştir.

Suyun nasıl yönetildiğine ilişkin meselenin ortaya çıkardığı yaklaşımlar, zaman (tarih boyunca) ve mekan (ülkeler arasında) bazında büyük oranda farklılıklar arz etmektedir. Su yönetimi tarzlarındaki bu farklılıklar “paradigma değişimleri” adı altında bir analitik çerçevede incelenmektedir.⁹⁵⁵ Bu yaklaşıma göre, her bir su yönetimi paradigması, suyun; toplum, ekonomi ve çevre bağlamlarında edindiği farklı rollerle ve bunlara dayalı olarak oluşan pratiklerle karakterize olmaktadır.

19. yüzyıl öncesinde suyun kullanımı, genellikle, suyu “en yakın kaynaktan” getirme ve kullanma biçimindeydi. Sanayi devrimi ve sonrasında ortaya çıkan teknolojik yenilikler ve gittikçe gelişen finansal imkanlarla, önceden “uzak” kabul edilen suların kullanımını gerek teknolojik gerekse ekonomik olarak mümkün kıldı. Bu çerçevede, “su kontrol edilebilir” şeklinde özetlenebilecek bir modernist anlayış gelişti ve mühendislikte yaşanan gelişmelerle birlikte büyük su yapılarının (barajlar, kanallar, tüneller) inşası mümkün hale geldi. Böylelikle, “hidrolik misyon” adı verilen bir paradigmaya girildi. Hidrolik misyon çerçevesinde su kaynaklarının ekonomi ve toplumun yararına sunulması en temel öncelik oldu.

⁹⁵⁵ J. Anthony Allan, “IWRM: The Sanctioned New Discourse?”, Peter Mollinga, Ajaya Dixit and Kusum Athukorala, *Integrated Water Resources Management: Global Theory, Emerging Practice and Local Needs*, Sage Publications, New Delhi, 2006, ss. 38-64.

1970'lerin sonlarına gelindiğinde, sanayileşmiş Batı'da, gitgide toplumsal yapıların ve kurumların ve bunlara olan bağlılığın sorgulandığı bir sürece girildi. Bu süreçte, eskisine oranla daha esnek (flexible) ağlar oluşmaya başladı. Gitgide, "hidrolik misyon"un yerini farklı paradigmalara almaya başladı ve son olarak, Entegre Su Kaynakları Yönetimi paradigması kabul görmeye başladı. Artık su kaynaklarının sadece ekonomi ve topluma olan yararı değil, aynı zamanda çevresel boyutları da gündeme alınmaya başladı. Su kaynaklarının bütün yönleriyle yönetilmesini hedefleyen bir anlayış yavaş yavaş egemen olmaya başladı.

Global düzlemde yaşanan bu değişimlerle kısmen paralel olarak, her ülke kendi su yönetimi tarzını benimsedi ve geliştirdi. Avrupa Birliği ülkeleri ve Türkiye de kendi tarihsel ve kurumsal gelişimlerine ve fiziksel yapılarına koşut su yönetimi biçimleri oluşturdu ve su yönetimi politikalarını kendi koşullarına göre biçimlendirdiler. Avrupa kıtasında 1950'lerde başlayan bütünleşme çabalarına karşın, bölge ülkeleri su yönetimlerinde ulusal önceliklerini uygulamayı sürdürdüler. Avrupa ülkelerinin ortak bir su yönetimi politikasına geçişleri Avrupa entegrasyonunun ileriki safhalarında derece derece gerçekleşmeye başladı. Bu çerçevede, Avrupa çapında ortak bir çevre politikasının şekillenmeye başlaması, su politikasında da bütünleşmeye doğru giden yolu açtı. Dolayısıyla, AB düzleminde bir su politikasının oluşması için önce bir ortak çevre politikası kurma yaklaşımının gelişmesi beklendi. Ne var ki, ilk aşamalarda geliştirilen su yönetimi politikasının unsurları, anlamlı bir bütün oluşturamadı ve sonuç olarak, Avrupa kıtası çapında kayda değer ilerlemeler sağlayamadı. Başlıca Avrupa nehirlerinde kirliliğin önlenememesi ve hatta giderek daha kötü boyutlara ulaşması, Avrupa su yönetimi politikasının dağınık yapısının bir örneği ve başarısızlığının önemli bir sonucu olarak görülmüştür.

Bu şartlar muvacehesinde, daha açık ifadesiyle, Avrupa tatlı su kaynaklarını başarıyla yönetecek entegre bir politikaya duyulan gereksinim artmasıyla birlikte, 1990ların ortalarından itibaren, Avrupa Su Çerçeve Direktifi'nin benimsenmesi ile sonlanacak olan bir çok taraflı bir tartışma ve politika yapma sürecine girildi.

Türkiye, uzun kabul edilebilecek bir süredir belli başlı Avrupa politik yapılarıyla bütünleşmiş durumdadır. NATO, AGİT ve Avrupa Konseyi bunların en önde gelenleri olarak sayılabilir. Benzer bir biçimde, Avrupa bütünleşmesi çerçevesinde de Türkiye 1959'dan itibaren, oluşmakta olan bu Avrupa politik yapısı içinde yerini almak istemektedir. AT/AB ile Türkiye arasındaki ilişki yıllar içinde atılan pek çok ortak adımla derinleşmiştir. 1963'te Ankara Antlaşması ile "Ortaklık" kurulmuş, 1999'da Türkiye "aday ülke" ilan edilmiş, 2005 Mart'ında ise üyelik müzakereleri resmi olarak başlamıştır. Su Çerçeve Direktifi, AB müktesebatının (*acquis communautaire*) bir parçası durumundadır. Buna göre, üyelik müzakerelerini sürdüren bir ülke olarak Türkiye söz konusu Direktif'in, aksi kabul edilmedikçe, en geç üyelik tarihi itibarıyla iç hukuka aktarılması ve uygulanması yükümlülüğünü üstlenmiş durumdadır.

Türkiye'nin Su Çerçeve Direktifi ile olan ilişkisi ilgi çekicidir, zira Direktif'in temel odağı "su kalitesi" nin Avrupa çapında iyileştirilmesi, diğer bir ifade ile, Avrupa tatlı sularının, su kalitesi yönünden "iyi duruma" ulaştırılması iken, Türkiye'nin tarihsel olarak öncelikli su politikası, su kaynaklarının geliştirilmesi çizgisinde gerçekleşmiştir. Su kaynaklarının geliştirilmesini geçmiş on yıllarda tamamlamış bulunan Avrupa ülkeleri için temel sorun, sanayileşmenin getirdiği olumsuz dışsallıklardan olan çevre kirliliği, ve su politikası özelinde de su kirliliği ile mücadele olmuştur. AB su kaynakları yönetimi anlayışı, su kaynakları geliştirilmesi ile ilgili yönetim ilkelerini çok genel hatlarıyla ele alan, öncelikle su kaynakları geliştirilmesinin etkileri (impacts) ve olumsuz olarak değerlendirilen bu etkilerin giderilmesi için önlemlerin (measures) alınması odaklıdır. Bir başka deyişle özellikle AB'nin önde gelen ülkelerinin su kaynakları geliştirme ile ilgili projelerini tamamıyla bitirmiş olmaları ve su kaynakları yönetiminin bir ileri aşaması olan "mevcut kaynakların daha etkin kullanılması: talep yönetimi ve "çevresel etkilerin giderilmesi" aşamalarına geçmiş olmaları, su kalitesi odaklı SÇD'nin yasalaşması sonucunu doğurmuştur. Öte yandan Türkiye sosyo-ekonomik kalkınmaya yönelik hedefleri doğrultusunda ve artmakta olan içme suyu, enerji, ve tarım suyu ihtiyaçlarını karşılamaya yönelik su kaynakları geliştirilmesi ile ilgili faaliyetlerini

tamamlayamamıştır. Diğer bir ifade ile Türkiye su kaynakları yönetiminin bir önceki safhasındadır. Gelişmekte olan bir ülke olarak Türkiye, su kaynaklarının ancak üçte birinden biraz fazlasını kullanıma sokabilmiştir. Bu çerçevede, gerek tarımsal üretim, gerek hızlı artan nüfusunun içme suyu ihtiyacı, gerekse hidroelektrik potansiyelini gelişen endüstrisinin hizmetine sunma bağlamında, Türkiye, su kaynaklarının geliştirilmesine büyük önem atfetmektedir. Bu öncelik, su kaynakları yönetim politikasının ana eksenini oluşturmuştur.

Bunun da ötesinde, Türkiye su kaynaklarının üçte birinden fazlası sınıraşan su kaynaklarından gelmektedir. Bu ise, tüm resmi daha da karmaşıklaştırmaktadır. Bu noktada, Su Çerçeve Direktifi'nin, sınıraşan sularla ilgili olarak da bazı hükümler barındırdığını hatırlamak gerekir. Türkiye'nin su yönetimi politikasına etki eden bu iki etmenin dışında, Su Çerçeve Direktifi'nin, halihazırdaki Üye Devletler için de zorlu uygulama süreçleri öngördüğü gerçeği de pek çok uzman tarafından kabul edilmektedir. Nehir havzalarının SÇD'nin uygulanmasında başlıca birim olarak ele alınıyor olması bu zorluklardan birisidir. Bu pencereden bakıldığında, Su Çerçeve Direktifi'nin uygulanması Türkiye'nin su yönetimi politikası ve bu alandaki pratiklere ciddi bir meydan okuma anlamına gelmektedir.

SÇD'nin Türkiye tarafından uygulanması çerçevesinde yapılacak işler şu şekilde sıralanabilir: SÇD'nin ileriki uygulama aşamalarındaki çalışmalar için bir altlık teşkil edecek olan güvenilir bir data envanteri çıkarmak, uygun standartlarda ve yeterli bir izleme sistemi oluşturmak, tüm sektörleri kapsayan şekilde ve tüm maliyetlerin karşılanması ilkesini temel alan bir fiyatlandırma sistemi ortaya koymak, ilgili tarafların geniş anlamda su yönetimine ve özellikle nehir havzası yönetim planlarının hazırlanması ve uygulanmasına katılımlarını sağlamak, Direktif'te su kütlelerinin "iyi duruma" ulaştırılması şeklinde öz ifadesini bulan çevresel amaçlara ulaşmayı hedefleyen tedbirler programını uygulamaya koymak. Bütün bu işlerin gerektirdiği çalışmalar dikkate alındığında, Su Çerçeve Direktifi'nin uygulanmasının Türkiye için ciddi bir gayret gerektirdiği ortaya çıkmaktadır.

Bu tezin yazılmasındaki temel motivasyon, SÇD'nin Türkiye'nin su yönetimi politikasına nasıl etkilerde bulunacağını tanımlamak (bu tartışmalar tezin konusuna ilişkindir), ve bu etkileri bir kavramsal çerçevede açıklamaktır (bu tartışma da tezin metodolojisi ile ilgilidir).

Su Çerçeve Direktifi çok boyutlu bir yasal düzenlemedir ve bu nedenle, herhangi bir ülkenin su yönetimi politikasının farklı boyutlarına farklı etkilerde bulunacaktır. Literatürde tartışılan “su kurumları” ve “kompartmanlara ayırma” (bu kavramdaki “kompartman” sözcüğü bağımsız bölümleri çağrıştırmaktadır, tezde ise birbiriyle ilişkili boyutlardan bahsedilmektedir) kavramlarından da yararlanarak, bu çalışmada Türkiye'nin su yönetimi politikasının üç boyutta incelenmesinin, tezin sorularına yanıt bulma bağlamında daha anlamlı olacağı vurgulanmaktadır. Su Çerçeve Direktifi'nin Türkiye su yönetimi politikasına yapacağı etkilerin farklı boyutlarda farklı derecelerde gerçekleşeceği savı bu şekilde test edilmiş olabilmektedir. Bu boyutlar; kurumlar, yasal söylemler ve politika ağları olarak belirlenmiştir. Bu çalışmada kurumlar, geniş bir kavramsal çerçevede, gerek su yönetimi konularında rol alan organizasyonları, gerekse kurumsallaşmış pratikleri kapsayacak şekilde tanımlanmaktadır. Literatürde, kurumların bu iki farklı kategorisini adlandırmanın bir biçimi olarak, kurumları, sırasıyla “sert” kurumlar ve “yumuşak” kurumlar olarak tanımlamak kullanılmaktadır. Diğer bir ifade ile somut kurumsal yapılanmalar olan organizasyonlar “sert” kurumlar olarak adlandırılmakta, soyut ancak kurumsallaşmış, belirli bir kurallar bütünü oluşturan pratikler ise “yumuşak” kurumlar olarak adlandırılabilir. Birinci kategoriye örnek olarak bakanlıklar, DSİ, Devlet Planlama Teşkilatı, sulama birlikleri gibi organizasyonlar sayılabilir. İkinci kategoride ise, fiyatlandırma, izleme, havza bazında su yönetimi, katılımcılık, ve sınıraşan sular gibi kurumlar yer almaktadır. Yasal söylemler kavramı ile kastedilen, su yönetimine yön veren temel yasal metinlerin içinde barındırdığı kavramsal yaklaşımlar ve önceliklerdir. Politika ağları ise, su yönetimi politikasının karar alma süreçlerine ve uygulama aşamalarına katılmakta olan belli başlı oyuncuların aralarındaki ilişki örüntüsünü kastetmektedir.

Tezin temel varsayımı aşağıda belirtildiği şekilde formüle edilmiştir: Su Çerçeve Direktifi, Türkiye'nin su yönetimi politikasının üç boyutunu da değişen derecelerde etkileyecektir. Diğer bir ifade ile, Türkiye'nin su yönetimi politikasının Su Çerçeve Direktifi'nden etkilenmesini incelerken, her boyutu tek tek ele almak gerekmektedir. Türkiye'nin Su Çerçeve Direktifi'ne uyum amacıyla uyguladığı adımlardan anlaşılacağı üzere, politika ağları ve yasal söylemlerde yaşanacak değişiklikler hızlı olarak gerçekleşmekteyken, kurumsal pratiklerdeki değişimler çok daha tedrici gerçekleşmektedir.

Bu varsayımın analitik bir çerçevede test edilebilmesi için kimi sorular gündeme gelmektedir., İlk olarak, Türkiye, su yönetimi paradigmaları bağlamında hangi noktada durmaktadır?

Bu sorunun gerektirdiği analizlerde su yönetimi ile ilgili başlıca paradigmlar tartışılmalı ve Türkiye'nin su yönetimi politikasının tarihsel ve kavramsal bir arka planı ortaya konulmalıdır. Türkiye'nin su yönetimi politikasına kapsamlı bir bakış ortaya koyarken ülkedeki su yönetiminin birbiriyle ilintili üç boyutta incelenmesinin yararlı olacağı ortaya konulmaktadır. Böylelikle, Türkiye'deki su yönetiminde gerçekleşen devamlılık ve değişimler daha ayrıntılı olarak irdelenebilecektir. Bunu yaparken, SÇD'nin yükümlülükleri ile Türkiye'nin halihazırda uygulamakta olduğu politika karşılaştırılmış olacaktır.

İkinci olarak, “Avrupa Birliği'ne Türkiye'nin üye olması, Türkiye'nin su yönetiminde ne gibi değişikliklere yol açacaktır?” sorusu gündeme gelmektedir.

Bu soruya verilecek yanıtın gerektirdiği tartışma AB su yönetimi politikasının ne şekilde olduğu ve günümüzdeki konumu ve sınırları ile yakından ilgilidir. Su Çerçeve Direktifi tarafından ortaya konulan ilkeler, yaklaşımlar, öncelikler ve süreçler, AB'nin Üye Devletler'de nasıl bir su yönetimi görmek istediği ile ilgili detayları içermektedir. Bu çerçevede, ikinci soruya yanıt arayabilmek için, Su Çerçeve Direktifi'nin kendisinin kapsamlı bir şekilde çalışılması gerekmektedir. Bunun da ötesinde, salt SÇD'nin ana metni değil, fakat onu destekleyici mahiyette hazırlanan Ortak Uygulama Stratejisi (Common Implementation Strategy) de

çalışılmalıdır. Son olarak, Su Çerçeve Direktifi'nin, AB'nin birkaç on yıldır geliştirmekte olduğu çevre politikasının bir alt başlığı olduğu gözden kaçırılmamalıdır. Bu çerçevede, SÇD'deki birçok yaklaşım ve kavramın öncüllerinin AB çevre politikası tarafından şekillendirildiği bilinmelidir.

Üçüncü olarak, “Su Çerçeve Direktifi'nin uygulanması amacıyla Türkiye’de yapılan çalışmaların gerçek etkisi ne olmuştur?” sorusu gündeme gelmektedir.

Bu sorunun yanıtlanmasına yönelik bir çalışmada iki ek sorunun daha yanıt bulması gerekmektedir: “SÇD”ye uyum çalışmalarında gerçekte ne değişti, ne aynı kaldı?” ve ikinci olarak da, “neden kimi alanlar değişime daha açık iken kimi alanlar değişime daha dirençli?” soruları yanıtlanmalıdır. Bu konulardaki tartışmalar, Türkiye'nin su yönetimi politikasını oluşturan temel sütunlarda SÇD'nin yaratmakta olduğu değişimlerin derecesini ortaya koyması açısından önem taşımaktadır. Bu nedenle, Türkiye su yönetimi politikası oluşturan üç sütunda gerçekleşmekte olan değişimlerin nasıl farklı olabildiğini göstermek, tezin varsayımın test edildiği bir analitik çerçevenin oluşmasına katkı sağlamaktadır.

Yukarıda kısaca tartışılan bu sorular ve bunların yanıtları tezin bölümlerinin ana eksenini oluşturmuştur.

Tezin ikinci bölümü Avrupa Birliği'nde gelişen çevre politikasına odaklanmıştır. Bu bölümün en önemli bulgusu, AB düzeyinde gelişen ortak bir çevre politikasının yanında, bu politikayla çok benzeşmeyen kimi ulusal öncelik ve kurumların varlıklarını inatla sürdürdükleri gerçeğidir. Bunun nedeni, ortak düzlemde gelişen çevre politikasının yeterince esnek oluşu ve Üye Devletler'e geniş bir hareket alanı tanınmasıdır. Bu durumun eleştiren bazı otoriteler açısından, Üye Devletler'in kendi ulusal gelenek ve kurumlarının bu derece devamı, AB çevre politikası açısından bir “uygulama sorunu”ndan başka bir şey değildir. Bölümün vurguladığı diğer bir husus da, AB çevre politikası altında ekonomik kalkınma ile çevresel koruma hedefleri arasında bir denge kurulmaya çalışıldığı bulgusudur. Bu bölüm AB çevre politikasını tarihsel ve yasal çerçevede ele alarak, bu politikanın içinde geliştiği genel şartların ve politikanın evriminin su ile ilgili yasal düzenlemelere nasıl yansıdığına ipuçlarını

sunmuştur. Dolayısıyla, bu bölüm göstermektedir ki, AB'nin su ile ilgili yasal düzenlemeleri, genel çevre politikasının bir alt ögesi olarak gelişmiştir ve bu çerçeveden bağımsız düşünülmemelidir.

Üçüncü bölüm SÇD'nin benimsenmesi sürecini ve sonrasında gelen uygulama süreçlerinin ayrıntılarıyla incelemektedir. Bu çerçevede, Direktif'in temel aldığı kavram ve kurallar incelenmektedir. Bunun dışında, SÇD'nin tamamlayıcısı niteliğindeki dokümanlar, diğer bir ifade ile, Ortak Uygulama Stratejisi (Common Implementation Strategy) ve Rehber Dokümanlar (Guidance Documents) ile Komisyon'un görüşlerini açıklayan belli başlı dokümanlar (Communications from the Commission) mercek altına alınmıştır

Su Çerçeve Direktifi (2000/60/EC), Avrupa Birliği'ndeki tüm su ortamlarının (kıtı içi sular, sulak alanlar, kıyı suları ve yeraltı suları) kalitesini korumayı ve iyileştirmeyi belirli bir takvim çerçevesinde hedef alan, ve buna ulaşmak için havza bazında yönetim, katılımcılık, suyun gerçekçi bir biçimde fiyatlandırılması, sınır aşan suların yönetiminde koordinasyon gibi ilke ve unsurları içinde barındıran ve Üye devletler nezdinde bağlayıcılığı bulunan bir yasal düzenlemedir. AB Su Çerçeve Direktifi'nin kabul edilmesi uzun müzakere süreçlerinin ardından gerçekleşmiştir. Direktif'in kabul edilme sürecinde yaşanan başlıca tartışma noktaları arasında, Direktif'in yasal olarak bağlayıcılığı, "tehlikeli maddeler" in belirlenmesi, Direktif'in uygulama takvimi (toplam uygulama süresi olarak AB Bakanlar Konseyi 16 yıl, Avrupa Komisyonu 12 yıl, Avrupa Parlamentosu 10 yıl önermiştir), "tüm maliyetlerin karşılanması" (Bakanlar Konseyi bu ilkenin kabul edilmemesini isterken, Komisyon ve Parlamento bu ilkenin Direktif'te yer almasını istemiştir) ilkesi (*full-cost recovery*) sayılabilir.

AB Su Çerçeve Direktifi, 'su' alanında temel bir yasal düzenleme olacak şekilde ihdas edildiğinden, Birlik bünyesinde önceden kabul edilen 'su' ile ilgili birtakım direktiflerin kaldırılmasını beraberinde getirmiştir. Kaldırılan/kaldırılacak direktiflerin işleyiş ile ilgili maddeleri SÇD tarafından üstlenilecektir ve standartların gevşetilmesi engellenecektir. Bu çerçevede, SÇD'nin uygulama takvimine bağlı

olarak, 2007 ve 2013 yıllarında iki dalga halinde toplam yedi Direktif kaldırılmış olacaktır.

Uygulama konusunda Üye Devletler arasında uyumlaştırılmış yaklaşımlar belirlemeye yardımcı olabilmek ve amacıyla, 2001 yılında bir “Ortak Uygulama Strateji” belgesi düzenlenmiştir. Bu çalışma çerçevesinde çok sayıda çalışma grubu kurulmuş ve Üye Devletler’de gerçekleştirilecek uygulamalara yönelik rehber dokümanlar hazırlanmıştır. Direktif’in uygulama süreçleri ile ilgili olarak Avrupa Komisyonu tarafından biri 2007’de, diğeri de 2009’da olmak üzere iki rapor yayınlanmıştır. Bu raporlarda, Direktif’in uygulanmasında kısmi bir başarıdan söz edilmiştir. Söz konusu raporlarda, bazı Üye Devletler’in “cesaret verici” uygulamalar gerçekleştirmekte oldukları gerçeğinin yanında birçok Üye Devlet’in uygulama süreçlerinde bulunan yetersizliklere dikkat çekilmiştir. En büyük problem alanları olarak Direktif’in iç hukuka aktarımlarında görülen yetersizlikler ve ekonomik analizlerdeki eksiklikler dikkati çekmektedir. Uygulama takviminin ilerleyen safhalarında, SÇD’yi uygulamakta yetersiz kalan Üye Devletler ile AB yasal düzenlemelerinin uygulanmasının gözeticisi olan Avrupa Komisyonu arasında uyuşmazlıklar çıkması ve bu uyuşmazlıkların -en son aşamada- Avrupa Adalet Divanı’na götürülmesi olasılığı bulunmaktadır.

Su kalitesinin iyileştirilmesini hedefleyen katıksız bir bilimsel yaklaşımın yasal düzleme aktarılmasından çok, SÇD, çok çeşitli ve farklı çıkarılara sahip tarafların arasında kurulmuş bir uzlaşma metni olarak değerlendirilmelidir. Bilindiği üzere Su Çerçeve Direktifi, yarım on yılı bulan bir müzakere sonucunun bir ürünüdür. Bu açıdan bakıldığında, SÇD, pek çok oyuncunun (tek tek Üye Devletler, Avrupa Komisyonu, Avrupa Parlamentosu, Hükümet Dışı Örgütler, vd.) çıkarlarının öne çıkmasını sağlamaya çalıştıkları zorlu bir süreç sonucunda kabul edilebilmiş bir ortak metindir. Dolayısıyla, SÇD belli bir “esnekliğe” sahip çerçeve bir Direktif’tir.

Su Çerçeve Direktifi’nin ele alındığı bölümün odaklandığı diğeri bir konu da SÇD’ye yöneltilen eleştiriler ve bunlardan çıkarılabilecek sonuçlar olmuştur. Bu kısmın vurguladığı üzere, SÇD, Üye Devletler’in kendi ulusal su yönetimi politikalarının

devamına imkan tanıyan bir dizi esneklik sunmaktadır. Bu esnekliğin bir boyutu da, sıklıkla kullanılan kimi kavramların ifade ettiği anlamlardaki bulanıklıktır. Bu, çevresel koruma hedeflerinin de net çizgilerle belirlenmemesi sonucunu doğurmaktadır. Kısacası, SÇD'nin ortaya koyduğu muafiyetler, ve anlamı kesin belirlenmemiş kavramların kullanılması, çevresel koruma düzeyini tehdit edecek derecededir ve bu durum, eleştirilen konuların başında gelmektedir. Bu bölümde ayrıca, Su Çerçeve Direktifi'nin güncel uygulama safhaları analiz edilmiştir. Direktif'in ilk uygulama safhalarını irdeleyen raporlardan anlaşıldığı üzere, Komisyon açısından, Üye Devletler'in bir çoğunda uygulama düzeyi tatmin edici değildir. Tezin temel argümanına göre, bu olgunun gerçekleşmesinin iki ana nedeni bulunmaktadır. İlk neden olarak, SÇD'nin kendisinde var olan geniş esneklik sayılabilir. SÇD, Üye Devletler'e geniş bir manevra ve yorum alanı tanımaktadır. Aslında bu durumu, son yirmi yılda AB tarafından benimsenen özel durumlara duyarlı yönetim yaklaşımına uygun düşen bir görünüm arzetmektedir. Diğer bir ifade ile, Su Çerçeve Direktifi, geniş anlamda AB Çevre Politikası'nın içinden geçmekte olduğu güncel tartışmaların yansımalarını içinde barındırmaktadır. İkinci neden olarak, Üye Devletler'de kurulu bulunan temel su yönetimi kurumlarının değişim karşısında göstermekte oldukları dirençten bahsedilebilir. AB Çevre Politikası ile ilgili bölümün ortaya koyduğu üzere, iki eğilim de AB Çevre Politikasının Üye Devletler üzerindeki etkisini ele alan literatürde göze çarpmaktadır.

Türkiye'deki su ile ilgili temel yasal düzenlemelerin incelendiği bölüm, bu düzenlemeleri tarihsel ve kavramsal bir düzleme oturtmak amacını gütmektedir. Bu bölümde, Türkiye'nin su ile ilgili çıkardığı yasal düzenlemelerin barındırdığı söylemler irdelenmiştir. Yasal metinler, söylem analizi için önemli ve değerli kaynaklar olarak kabul edilmektedir. Türkiye su yönetimini belirleyen yasal düzenlemeler incelendiğinde üç temel aşama gündeme gelmektedir. Cumhuriyet'in ilk otuz yılını kapsayan ilk aşamada, çerçeve kanunlar çıkarılmış ve su yönetimi yasal bir düzleme yerleştirilmeye çalışılmıştır. Bu dönemin önde gelen yasaları arasında Köy Kanunu, Sular Hakkında Kanun ve Belediyeler Kanunu sayılabilir. Tekil projelerin inşası ve kamu sağlığını korumaya yönelik tedbirler, bu dönemin

belirleyici öncelikleri idi. 1950'lerin ortalarında başlayıp 1980'lerin ilk yarısına kadar süren ikinci dönemde ise su kaynaklarının sistematik olarak geliştirilmesi öne çıkan bir öncelik olmuştur. Devlet Su İşleri Genel Müdürlüğü'nün 1954'te kurulması bu dönemin en önemli kilometre taşlarından. Bu dönemde yeraltı suları ile ilgili yasal düzenleme de yapılarak, bu suların da DSI'nin yönetimine verilmesi sağlanmıştır. 1980'lere kadar, su kaynaklarından optimum düzeyde faydalanma şeklinde özetlenebilecek öncelik su yönetimine hakim olan anlayış olmuştur. 1980'lerin ilk yarısından itibaren başlayan üçüncü aşama ile birlikte, "su kalitesi" konusu yavaş yavaş gündeme oturmaya başlamıştır. Ancak, su kaynaklarının geliştirilmesi yine de temel öncelik olmayı sürdürmüştür. Bu aşamanın ilk yıllarında yapılan önemli yasal düzenlemelerden üçü 1983 yılında çıkarılan Çevre Kanunu, 1988 yılında kabul edilen Su Kirliliğinin Kontrolü yönetmeliği ve 1991 yılında Çevre Bakanlığı'nı kuran yasal düzenlemedir. Su konusundaki bu yeni yaklaşımın altında yatan nedenlerden en önemlisi hızlı şehirleşmenin getirdiği olumsuzluklar ve su kirliliğinin artan şehirleşme ve sanayileşme paralelinde ciddi boyutta artışı olmuştur. Son olarak, bu son aşamada iki konu, Türkiye su yönetimi politikasına yön veren faktörler arasına girmeye başlamıştır: adem-i merkezîyetçilik ve özelleştirme. Kısacası, 1980'li yıllardan bu yana Türkiye'de su sektöründe reformlar gündemdedir ve bunlar kimi zaman somut ve başarılı uygulamalara da dönüşmüştür. Ama artan ihtiyaçlar, gittikçe karmaşık hale gelen yasal mevzuat ve teşkilat yapısı, su kaynakları yönetiminde kapsamlı bir yeniden yapılanmayı gündeme getirmektedir. Ülke düzlemindeki bu gelişmelere paralel olarak, Avrupa Birliği'ne üye olmanın gerekleri kapsamında karşımıza çıkan reform süreci de su kaynakları yönetimi ile ilgili bu kapsamlı yeniden değerlendirmeyi desteklemektedir.

Beşinci bölümde, Türkiye su yönetimi politikasında yer alan kurumlardaki devamlılıklar ve değişimler irdelenmiştir. Tezin kuramsal yaklaşımına göre "kurum" kavramı, sadece somut toplumsal oluşumları değil (örneğin organizasyonlar), fakat aynı zamanda soyut birtakım politik süreçleri ve toplumsal etkileşimleri, uygulama pratiklerini de kapsamaktadır. Bu çerçeveye göre, kurumsal yapılanmalar iki temel kategoride incelenmektedir. Konuyla ilgili literatürden mülhem, birinci kategori

somut kurumları yani organizasyonları (teşkilatları) kapsamaktadır. İkinci kategori ise toplumsal ve idari kuralların oluşturduğu “soyut” olarak tanımlanabilecek kurumlardır. Organizasyonlar, ortak bir amaç etrafında biraraya gelip çalışan ve ortak çıkarları olan bireyler topluluğunu ifade etmektedir. Siyasi partiler, okullar, sendikalar, devlet kurumları organizasyonlara örnek olarak verilebilir. Tezin konusu çerçevesinde incelenen organizasyonlar arasında DSİ, EİEİ, Çevre ve Orman Bakanlığı, Sağlık Bakanlığı, Devlet Planlama Teşkilatı gibi kurumlar sayılabilir. İkinci kategori, soyut kurumları, diğer bir ifade ile, kurumsallaşmış pratikleri kapsamaktadır. Bu ikinci kategorideki kurumsal yapılanmalara örnek olarak fiyatlandırma, izleme, nehir havzası yönetimi, sınıraşan sularla ilgili ilişkiler ve halkın katılımı ile ilgili uygulamalar sayılabilir.

Su Çerçeve Direktifi'nin öngördüğü kurumsal yapılanmalar (kurumsal pratikler kastedilmektedir) ile Türkiye'nin uygulamakta olduğu kurumsal pratikler arasında önemli sayılabilecek farklılıklar bulunmaktadır. Bu farklılıklar, Türkiye'nin 2000li yılların başından itibaren içinden geçmekte olduğu SÇD'ye uyum sürecinin en önemli kısmını teşkil etmektedir. Türkiye'nin kurumsallaşmış pratikleri ile Su Çerçeve Direktifi'nin uygulamaya geçirilmesinin istediği kurumsallaşmış pratiklerin arasındaki ciddi farklılık, Türkiye'nin, AB Direktifleri ile ilgili olarak ortaya koyduğu kayda değer yasal uyumlaştırma geçmişi ile tezat oluşturmaktadır. Bu durumun en önde gelen nedeni, kurumsallaşmış pratiklerin yasal dokümanlara oranla çok daha yavaş adapte olabildikleri gerçeğidir. Yasal düzenlemelerdeki değişiklikler Parlamento'nun karar alma süreçlerine bağlı olarak hızlı bir biçimde gerçekleşirken, kurumsallaşmış pratiklerdeki değişimler ise tedrici olabilmektedir. Dolayısıyla, kabul edilen pek çok “su” Direktifi'ne karşılık, fiyatlandırma, halkın su yönetimine katılımı, sınıraşan sularla ilgili ilişkiler, izleme ve havza bazında su yönetimi gibi konularda değişim çok daha yavaş gerçekleşebilmektedir. Dolayısıyla, Su Çerçeve Direktifi'nin önerdiği ile Türkiye'nin uygulamakata olduğu kurumsal pratikler arasındaki farklılıklar, SÇD'ye uyum için gereken değişikliklerin temelini ve en önemli kısmını oluşturmaktadır. Kurumların (teşkilatlar) yapısındaki değişimler,

ilgili bölümlerin gösterdiği üzere yasal söylemler ve politika ağları gibi, daha hızlı olmaya adaydır.

Politika ağlarının analizi, politik süreçlerin bütüncül bir yaklaşımla incelenmesine olanak sağlayan bir analitik araç olarak kabul edilmektedir. Tezin benimsediği yaklaşım çerçevesinde, politika ağlarının analizi, Türkiye su yönetimi politikasının belirlenmesi ve uygulanması süreçlerinde yer alan tüm oyuncuların arasındaki ilişki bütününe incelemek için kullanılan bir araçtır. Diğer bir ifade ile, seçilmiş aktörler arasındaki ilişkileri çalışmak, özellikle de Türkiye su yönetimi politikası örneğindeki gibi çakışan görev alanlarının bulunduğu ve “parçalı” bir yapı nedeniyle etkin bir su yönetiminin gerçekleştirilemediği ifade edilen bir politika alanında, istenen sonuçları ortaya koyamayacaktır. Yedinci bölümün gösterdiği üzere, “politika ağları” yaklaşımı, politikanın belirlenmesi ve uygulanması süreçlerinde rol alan kurumların arasındaki ilişkileri bir analitik çerçeveye oturtmada belirli bir açıklayıcı güce sahip bulunmaktadır.

Türkiye’nin su yönetimi politikasının son elli yılında politika ağları düzleminde meydana gelen değişimlerin boyutu, SÇD’nin uygulanması sürecinde Türkiye’nin sahip olduğu uyum kapasitesini vurgulamaktadır. Bu açıdan yaklaşıldığında, politika ağlarındaki büyük değişimin Türkiye için bir kazanım olduğu değerlendirilebilir.

Yasal söylemler, kurumlar ve politika ağlarının, Türkiye’nin su yönetimi politikasındaki konumlarının irdelenmesinin ardından, Türkiye su yönetimi politikasında meydana gelmekte olan SÇD kaynaklı değişimler analiz edilmelidir. Bu çerçevede, şu sorunun yanıtı aranmalıdır: “SÇD’ye uyum çerçevesinde atılan adımlar, Türkiye’nin su yönetimi politikasında hangi değişikliklere yol açmaktadır?”.

Bu alanda üç farklı kategori belirlenmiştir. Birinci kategoride pilot projeler yer almaktadır. Pilot projeler kimi zaman belirli bir lokasyonu hedeflemiş (Büyük Menderes Havzası’nı hedefleyen MATRA Projesi gibi), kimi zaman da ülke çapında uyumu hedeflemiştir (İzleme alanındaki Twinning Projesi gibi). Pilot projeler kimi

zaman tek ülke tarafından desteklenen projeler olmuş (DEFRA tarafından desteklenen proje gibi), ya da bir grup ülke tarafından desteklenen projeler olmuştur (Hollanda, Slovakya ve Birleşik Krallık tarafından desteklenen Twinning Projesi [“Capacity Building Support to the Water Sector in Turkey”] gibi). İkinci kategoride ise Türkiye'nin Su Çerçeve Direktifi'ne uyumunu hedefleyen yasal düzenlemeler yer almaktadır. Bu düzenlemeler var olan yasal düzenlemelerdeki değişiklikleri ya da yepyeni birtakım düzenlemelerin çıkarılmasını kapsamaktadır. Üçüncü kategoride ise, bağımsız kuruluşların raporları, resmi raporlar yer almaktadır. Bunlara örnek olarak, Ulusal Programlar, Çalışma Grupları'nın (Working Groups) ortaya koydukları belgeler ve Strateji Belgeleri sayılabilir.

Yasal söylemleri, politika ağlarını ve kurumları değiştirmede bu proje ve çalışmaların ne ölçüde değişimlere yol açtığı konusu önem taşımaktadır, zira söz konusu proje ve çalışmaların etkileri büyük oranda değişkenlik göstermektedir. Bu çalışmalar yasal düzenlemeleri tetiklemede ve politika ağlarını değişikliğe uğratmada etkili olmuştur, ancak su yönetiminin işleyişini belirleyen kurumsallaşmış pratiklerde ciddi değişimlere yol açmada etkili oldukları kanıttan yoksun durumdadır.

Bu konu ile ilgili ikinci önemli husus, 2009 yılının Aralık ayında Çevre ile ilgili müzakere faslının açılması ile birlikte SÇD'ye uyum sağlamaya yardımcı olmayı hedefleyen projelerin kapsam ve sayısında kayda değer bir artış ortaya çıkmıştır. Bu çerçevede, Türkiye'de su yönetimi politikasından sorumlu kuruluşlar ile bu kuruluşların Avrupalı muhatapları (Üye Devletler'in temsilcileri, Avrupa Komisyonu, Avrupa Parlamentosu milletvekilleri, vb.) arasındaki ilişkilerin de yoğunlaştığı söylenebilir. Bu noktadan hareketle, yoğunlaşan ortak projelerin de gösterdiği biçimde, Türkiye'nin belli başlı su kuruluşlarında, Su Çerçeve Direktifi'ne ve Direktif'in öngördüğü kurumsallaşmış pratiklere yönelik farkındalık ve uyum isteğinde, gelecek yıllarda belirgin bir artış olacağı beklenebilir.

Bu çalışma, Türkiye su yönetimini tüm boyutlarıyla ve Su Çerçeve Direktifi yükümlülükleri ışığında ele almayı amaçlamıştır. Bu çerçevede, konuyla ilgili var olan literatüre Türkiye Su yönetimi-SÇD ilişkisi bağlamında kapsamlı bir çalışma ile

katkı sunmayı hedeflemiştir. Öte yandan, ikinci bir katkı olarak tezin varsayımı ve metodolojisinden bahsedilebilir. Bu çalışma, “su yönetimi” kavramını tekil bir öge olarak ele almamış, aksine bu kavramı birbiriyle ilişkili üç boyut halinde incelemiştir. Varsayım olarak da, Su Çerçeve direktifi’nin bu üç boyutu değişen derecelerde etkileyeceğini savunmuştur. Üçüncü hedeflenen katkı, Türkiye’de su alanında kabul edilen yasal düzenlemelerin kapsamlı bir değerlendirmesini sunmaktır. Bu çerçevede, Cumhuriyet’in ilk yıllarından günümüze kadar su ile ilgili belli başlı düzenlemeler ayrıntılı olarak ele alınmıştır. Politika ağlarının görsel bir biçimde sunulması da literatüre yapılan bir katkı olarak değerlendirilebilir.

Tezin benimsediği temel metodoloji kalitatif ve kantitatif metodların bir bileşimi şeklindedir. Bu çerçevede, çeşitli resmi metinlerin irdelenmesi, konuyla ilgili akademik kitapların, makalelerin okunması, çeşitli haber ajanslarından ilgili haberlerin derlenmesi, tezin tartışmalarına kaynaklık edecek temel datalara ulaşmak için başlıca yol olmuştur. Bunun dışında, konunun uzmanları ile yapılmış mülakatlar da önemli bilgiler sunmuştur. Dolayısıyla, resmi dokümanlar, güvenilir haber kaynakları ve mülakatlar en temel üç kaynağı teşkil etmiştir. Tezin kavramsal çerçevesinin sağlam olarak kurulabilmesi için konuyla ilgili teorik çalışmalar da araştırılmıştır. Bu açıdan, temel kavramları açıklayan kitap ve makaleler çalışılmıştır. Tezin kullandığı kantitatif metodla ilgili olarak yapılan çalışma, Türkiye’nin su yönetimini oluşturan politika ağlarının görsel olarak sunulması oldu. UCINET adlı bilgisayar programı kullanılarak su yönetiminde rol alan oyuncuların aralarındaki ilişkiler görsel şemalar halinde ortaya konuldu.

Tablolar, şemaların içerdiği bilgileri sayısal düzlemde barındıran unsurlardır ve belli başlı konu başlıkları çerçevesinde su yönetimi politikasında yer alan oyuncuların gördükleri işlevleri listelemektedir. Bu tablolardaki bilgilerin hazırlanma sürecinde ilk el kaynaklar olarak yasal düzenlemeler incelenmiş, ve kurumların rolleri ortaya konulmuştur. Bunun ardından mülakatlardan elde edilen bilgiler ile datanın doğruluğu ikinci kere test edilmiş oldu. Dataların içeriğini temelde belli başlı kurumların su yönetimindeki rolleri ile bu kurumlar arasındaki ilişkiler oluşturdu.

Bu diagramların oluşturulabilmesi için, Türkiye’de uygulanmakta olan su yönetimi pratikleri, daha spesifik olarak nitelendirilebilecek konu alanlarına ayrıldı. Bu konu alanlarına (katılımcılık, fiyatlandırma, yeraltı suları gibi) “işlevler” adı verildi. Bu konuyla ilgili olarak MATRA Projesi’nin çalışmaları katkı sunmuştur. MATRA Projesi çerçevesinde, SÇD’nin uygulanması için gerekli olan belli başlı işlevlerin listesi çıkarılmıştır. Tezde, bu işlevler kullanılmakla birlikte, bunlara ek bazı yeni işlevler belirlenmiş ve kullanılmıştır. Bunun ardından, su yönetimi politikasına yön veren önemli oyuncular belirlenmiştir. Excel tablolarının hazırlanmasını ve doğrulanmasını takiben, son aşamada, ilgili data şemalara (görselleştirme-visualization) dönüştürülerek politika ağlarındaki değişimin derecesi ölçülmüştür.

AB SÇD, Türkiye su yönetimi politikasının her üç boyutunu da değişen ölçülerde etkileyecektir. Türkiye’nin, SÇD’ye uyum çerçevesinde attığı adımların gösterdiği üzere, politika ağları ve yasal söylemlerde yaşanacak değişimler daha hızlı ve somut olurken, kurumsal süreçlerde yaşanacak değişimler daha tedrici olacaktır. Buna neden olarak iki temel etmenden bahsedilebilir: İlk olarak, SÇD’de kayda değer derecede esneklik ve geniş uygulama sahasına sahip muafiyetler söz konusudur. SÇD’deki bu esneklik ve muafiyetler Üye Devletler’e geniş bir manevra alanı tanımakta ve önemli kimi sorumluluklardan kaçma olanağını sunmaktadır. Bu nedenle, Türkiye özelinde düşünüldüğünde, SÇD’deki muafiyetlerin Türkiye’de SÇD’nin uygulanmasında su yönetiminin üç boyutu bağlamında eşitsiz uygulama sonuçlarına yol açacağı beklenebilir. Politika ağları ve yasal söylemler değişime daha açık bir konumdayken, geniş uygulama alanı bulabilecek olan SÇD’deki muafiyetler, kurumların (özellikle de kurumsallaşmış pratiklerin) çok daha yavaş değişebileceğine işaret etmektedir. İkinci olarak, kurulu bulunan kurumsal geleneği kırmanın zorluğundan bahsedilmelidir. 1950lerden 1980lere kadar su kaynaklarının geliştirilmesi, Türkiye’nin su yönetimi politikasının tek ve güçlü önceliği idi. Su kaynaklarını ülkenin yararına kullanma yaklaşımı temel olan bu öncelik çerçevesinde gerekli yasal düzenlemeler yapılmış ve ilgili resmi teşkilatlar kurulmuştur. Su kaynaklarının geliştirilmesine odaklanan bu yaklaşım, kendine uygun birtakım kurumsal pratikleri de beraberinde geliştirdi. Diğer bir ifadeyle, fiyatlandırma,

izleme, sınıraşan sularla ilgili ilişkiler, nehir havzası yönetimi ve katılımçılık ile ilgili kurumsallaşmış pratikler, temel öncelik olan su kaynaklarını geliştirme politikasına uygun olarak şekillendi. Özellikle 1980lerden itibaren kimi çevresel ve toplumsal kaygılar ön plana çıkmaya başladıysa da (su kalitesine yönelik çalışmalar, ya da katılımcı su yönetimi uygulamaları gibi), su kaynaklarının geliştirilmesi, su yönetiminin politikasını şekillendiren elitlerin temel düşüncesi olmayı sürdürdü.

SÇD “su kalitesi”ne odaklanmıştır, ancak Üye Devletler’i Direktif’in hedeflerine ulaşmada, SÇD’nin benimsediği yaklaşımdan farklı bir yaklaşımı benimsemeye serbest bırakmıştır. Bu bakımdan, retorik açıdan yaklaşırsa, Türkiye’nin, su kaynakları geliştirme odaklı yaklaşımından uzaklaşmadan, SÇD kurallarına uyum sağlaması mümkün görünmektedir.

Esasen, su kalitesinin iyileştirilmesini hedefleyen ve AB çapında senkronize edilen son yasal düzenlemeler göstermektedir ki, Su Çerçeve Direktifi’nin kurallarına uyum sağlamak ve Direktif’in gerektirdiği kurumları hayata geçirmek mümkündür. Ancak, kurumlarda ve köklü uygulamalardaki değişimler hem zaman alıcı niteliktedir hem de maliyetlidir. Kurumsal süreçlerde yaşanması beklenen değişimlerin, Türkiye’nin, su yönetimi politikasında devam edegelen geleneklerinden vazgeçmeden gerçekleştirebileceği gelecek yıllarda görülecektir.