

Developments in Turkey in the Context of Participatory Approach Based on River Basin Management

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1- Abstract

In this study, the developments in the area of participatory approach based on river basin management in Turkey have been indicated. This study serves a guide for showing what has been done in Turkey in the area of basin management and participation of related parts to this process. The need of water management in Turkey as a result of semi-arid climate, increasing population, increase of industry etc. has stated. Water pollution which is another important pressure of water resources make the water management crucial has stressed. In the first step of the study, the institutional structure of Turkey in water sector has been showed. Water is an intersection of many sectors for this reason it has many stakeholders such as public bodies, private sector, non-governmental organizations and local people. It needs to manage in a holistic way which includes the participation of all stakeholders in a harmonious way. In addition, the structure of “Water Management Coordination Committee” which established for the coordination of related parts in water sector has been stressed. One of the importance of “Water Management coordination Committee” is that the approval of programme of measures of river basin management plans is done by this Committee and that makes the implementation of programme of measures very easier. The progress in this area as a result of adaptation of EU Directives has been explained. Turkey has strived various efforts in this issue. As a result of adaptation to EU acquis one of the legislative improvements “Draft By-Law on Protection of Basins and Preparation of Management Plans” has been explained. By-Law includes the procedures and principles of planning and protection of quantity and quality of groundwater and surface water by a holistic approach and principles of preparation of river basin management plans. Furthermore, regional management structures which will be formed during the preparation of “River Basin Management Plans” have been set forth. In the following stage the concept of “River Basin Protection Action Plans” which will be converted to “River Basin Management Plans” has been examined and the efforts for participation of all stakeholders to decision and implementation phases have been defined. The projects, studies and improvements in the area of basin management have explained.

Keywords: water resources, participatory approach, management, basin, Turkey

2- Introduction

In the recent years, throughout the world the water resources have gained more significance than ever. In the Middle East, where Turkey is also located, the scarcity of water is being experienced severely. This region is in a semi-arid climate; therefore, the potential of water resources is low. On the other hand, rapidly increasing population of the countries in the region has also influenced the demand for water.

One of the important problems of water resources is water pollution in Turkey. Water pollution is determined in some of the present surface and groundwater in our country due to reasons such as rapid population growth, increase of industry, increase of fertilizer and herbicide use in agriculture and not to be aware of environmental conscious.

The success of water resources management is achieved only by accurately determining the whole relationships among processes effecting the hydrologic system. In this stage, the definition of the system- as a basin within its natural boundaries and determination of its available yield will enable a rational and effective water resources management. The sustainability approach, which meets the long-term water demands without creating undesirable effects on the system at the end of active water usage period, must be used.

Within this line, the ongoing works have accelerated through the EU Adaptation Process. The projects conducted in the framework of alignment to the EU Environment Acquis are realized through the participation of all stakeholders. Establishing effective mechanisms for active public participation in planning and decision-making process must be highly prioritized. These mechanisms must be adapted to the appropriate scale, target groups and issues, and they must ensure transparency and accessibility.

3- Institutional Structure of Turkey

In Turkey, water management is defined as the aim and responsibilities of the Ministry of Forestry and Water Affairs. The Ministry of Forestry and Water Affairs which is competent authority on subjects related with water, has a general coordination task in terms of development and implementation of Turkey's water policy including coordination of adaptation of Turkish Water Legislation with the EU acquis as well as subjects such as water management and protection of water. The Ministry is in cooperation with other Ministries, public bodies and other stakeholders related with water management issues. One of the responsibilities of the Ministry of Forestry and Water Affairs is conducting necessary coordination within related parts in the river basin management plans.

Other than Ministry of Forestry and Water Affairs, the Ministries have responsibilities about water.

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|---|---|
| Ministry of Health | <ul style="list-style-type: none"> • Responsible for water intended for human consumption. |
| Ministry of Food, Agriculture and Livestock | <ul style="list-style-type: none"> • Responsible from Nitrate Bylaw |

4- Establishment of Water Management Coordination Committee

Our country is in a semi-arid region for this reason enhancement of water quality and quantity and achievement of sustainable water usage gains more importance. For this purpose all related institutions need to act in cooperation and coordination.

Coordination and cooperation of institutions is necessary for preparation of river basin management plans, making water related investments, carrying out of other legal, administrative and technical issues.

Water Management Coordination Committee is established for the determination of measures to the protection of water resources in a holistic way, achievement of coordination and corporation of different sectors, enhancement of water investments, attainment of goals stated in national and international documents and implementation of institution's responsibilities stated in the river basin management plans.

The Committee is formed from Ministry of Forestry and Water Affairs, Ministry of Environment and Urbanization, Ministry of Internal Affairs, Ministry of Foreign Affairs, Ministry of Health, Ministry of Food, Agriculture and Livestock, Ministry of Science, Industry and Technology, Ministry of Energy and Natural Resources, Ministry of Culture and Tourism, Ministry of Development, Ministry of European Union and Turkish Water Institute.

Related institutions and organizations, universities, non-governmental organizations, employee associations and private sector representatives can be called and they can participate to sub-committee and committee works.

One of the responsibilities of Committee is that; programme of measures formed for each basin during the studies of river basin management plans will be submitted to Water Management Coordination Committee for approval. By this approval programme of measures will be implemented in the basins.

5- Draft By-Law on Protection of Basins and Preparation of Management Plans

General Directorate of Water Management is conducting the studies about preparation of Draft By-Law on Protection of Basins and Preparation of Management Plans. The aim of this By-Law is determination of procedures and principles of planning and protection of quantity and quality of

groundwater and surface water by a holistic approach. This By-Law also includes principles of preparation of river basin management plans.

In the process of preparation of River Basin Management Plans, the Ministry of Forestry and Water Affairs enables the active participation of all related agencies and institutes by receiving opinions about plans. Raising awareness in the public and participation of stakeholders is one of the important points of successful implementation of river basin management plans. For the coordination and participation of stakeholders, committees will be established in the basin scale.

Basin management committees will be established in each basin for planning and protection of quantity and quality of surface water and groundwater by preparing, implementing, auditing and assessing of river basin management plans. Basin management committees involve the provinces in the basin. The head of the committee will be the Governor of the province which has more severe water management problems. The committees comprised from provincial directorates of Ministry of Forestry and Water Affairs, Ministry of Environment and Urbanization, Ministry of Internal Affairs, Ministry of Foreign Affairs, Ministry of Health, Ministry of Food, Agriculture and Livestock, Ministry of Science, Industry and Technology, Ministry of Energy and Natural Resources, Ministry of Culture and Tourism, Ministry of Development, Ministry of European Union and local authorities, universities and NGOs.

6- River Basin Protection Action Plans and River Basin Management Plans

In Turkey 25 river basins are identified. General Directorate of Water Management has prepared 11 River Basin Protection Action Plans and the Project “Preparing River Basin Protection Action Plans for 14 Basins” is going on. In the year 2013, River Basin Protection Action Plans for 25 basins will be completed. By the year 2023, these 25 River Basin Protection Action plans will have been converted to River Basin Management Plans. “Draft Büyük Menderes River Basin Management Plan” is prepared as an output of the Twinning Project “Capacity Building Support to the Water Sector in Turkey”. “Conversion of River Basin Protection Action Plans to River Basin Management Plans Project” which includes 5 basins (B. Menderes, Meriç – Ergene, Susurluk, Gediz, Akarçay Basins) will start in 2013.

In the scope of River Basin Protection Action Plans; quantity, properties and pollution of surface and groundwater, pressure and impacts as a result of industrial, agricultural and economical activities are determined, water quality maps are formed, for the protection of river basins and reducing of pollution; programme of measures in the short, medium and long terms is prepared. The content of River Basin Protection Action Plans is as below:

- 1- General description of the river basin district,
- 2- Field surveys and determination of environmental background,
- 3- Water quality classification,
- 4- Calculation of pollution loads,
- 5- Prominent environmental problems of the basin and their solutions,
- 6- Planning of urban wastewater treatment plans,
- 7- Preparation of River Basin Protection Action plans,
- 8- Submission of data to GIS.

Preparation of River Basin Protection Action plans for 11 basins (Marmara, Susurluk, Kuzey Ege, Küçük Menderes, Büyük Menderes, Burdur, Konya Kapalı, Ceyhan, Seyhan, Kızılırmak, Yeşilirmak) has finished in 2010. Preparation of River Basin Protection Action Plans for 14 Basins (Antalya, Doğu Akdeniz, Batı Karadeniz, Fırat -Dicle, Doğu Karadeniz, Batı Akdeniz, Çoruh, Aras, Asi, Meriç-Ergene, Van, Akarçay, Gediz, Sakarya) started in December 2011 and will be ended in December 2013.



Figure 1: River basins of Turkey

7- Participatory Approach in River Basin Protection Action Plans

During the Preparation of River Basin Protection Action Plans of 14 Basins Project (2011 – 2013) there will be 3 meetings with stakeholders for every basin. The schedule of the meetings is as below;

Table 2: Conducted meetings in the Project

| | |
|------------------------|--------------------------|
| Opening Meetings | February – March 2012 |
| 1. Stakeholder Meeting | February – March 2013 |
| 2. Stakeholder Meeting | September – October 2013 |

Until now, Opening Meetings are conducted for 14 basins. For each meeting all related institutions, public bodies, industry sectors, non-governmental organizations and local people are invited to the meetings. In these meetings, firstly river basin protection action plans are explained to people attended meetings. In the second part of the meetings contribution of

participants is asked. The participants asked the questions arised in their heads about the project and they added more information about the site.

Table 2: Participants of the Opening Meetings

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| Ministry of Forestry and Water Affairs |
| TUBITAK |
| Provincial Directorate of Food, Agriculture and Livestock |
| Provincial Directorate of Science, Industry and Technology |
| Provincial Directorate of Health |
| Provincial Directorate of Environment and Urbanization |
| Regional Directorate of State Hydraulic Works |
| General Directorate of Environmental Impact Assessment, Permission and Audit |
| Governorships |
| District Governorships |
| Municipalities |
| Regional Directorate of Bank of Provinces |
| Provincial Special Administration |
| Universities |
| Development Agencies |
| Research Institutes |

8- Conclusion

The main reasons of water related problems are rapid and unplanned urbanization depending on population growth, industrialization, intense agricultural activities, misuse of the lands and global warming. But the real problem is related on “Integrated Management” which is developed by the targets such as planned and economical usage of water which is a natural resource and has no alternative. It includes determination and prevention of the problems which threaten water resources, protection of water and water related ecosystems and sustainable economical growth.

For accomplishment of the implementation; preparation of appropriate legislation is important to form corporate infrastructure to facilitate the applications within the frame of obligations in the EU membership process and to remove the legal overlapping, to remove corporate conflicts, to realize integrated water management, to provide continuance by rehabilitating of ecological structure of water, to monitor and to constitute the basis of forming a database, to form basis to implement the principle “polluter pays” and to integrate all water quality directives. Forming a mechanism to support inter-institutional coordination is also important to implement the directives. Especially forming basin based management models for structuring of studies in basins by the owners of the basins will carry out better and effective solutions.

The Ministry of Forestry and Water Affairs process his development and vision in such a way, he is working compatible with the benefits of the country in EU membership process. Especially studies on harmonization of the Directives and studies on reorganization are the indicators of truly comprehending of the process. “Water Management Coordination Committee” is formed to put our target and strategies, to activate the organizations and institutions with the aim of evaluation of EU membership process in terms of water sector and implementation of our national based applications and investments.

Turkey specified his priorities to have correct decisions on correct time and to reach good status targets and to preserve good status continuously and forming his investment plans considering defined time frames. Time has become an important concept for Turkey who wants to be an EU member. For this reason all the prepared plans will be realized and put into practice.

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