



**Capacity Building
for Sustainable Management
of Mountain Watersheds
in Central Asia and Caucasus**

Turkey, Azerbaijan, Kyrgyzstan, Tajikistan, Uzbekistan

Capacity Building for Sustainable Management of Mountain Watersheds

In Central Asia and the Caucasus

GCP/SEC/002/TUR

The Role of Training and Awareness Creation for Development of Watershed

Rehabilitation and Management:

Turkish Experiences and Recommendations for the Central Asian Countries

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Preface

The project “**Capacity Building for Sustainable Management of Mountain Watersheds in Central Asia and the Caucasus**” - *GCP/SEC/002/TUR* – is funded by the FAO/Turkey Partnership Programme (FTPP). With the support of the Turkish International Cooperation and Coordination Agency (TIKA), FAO Sub Regional Office for Central Asian Countries (FAOSEC) and the Ministry of Forests and Water Affairs of Turkey, it has been implemented in Azerbaijan, Kyrgyzstan, Tajikistan, Turkey and Uzbekistan.

This report entitled “THE ROLE OF TRAINING AND AWARENESS CREATION FOR DEVELOPMENT OF WATERSHED REHABILITATION AND MANAGEMENT: TURKISH EXPERIENCES AND RECOMMENDATIONS FOR THE CENTRAL ASIAN COUNTRIES” prepared by İsmail Belen, *TCDC Consultant for Public Awareness and Training*, in close cooperation with other TCDC Consultants, Project Regional Coordinator, National Consultants and FOASEC Forestry Officers.

In the stage of preparation of this report, some applications from Turkey and other project countries have been examined and then recommendations were given. For writing systematic; some definitions related to watershed management were given, some institutes and agencies working in mountainous watersheds examined, and the importance of the issue elaborated, studies conducted in Turkey revised. A special attention was given to awareness building and training activities carried out under this project. Finally, recommendations are given on the subject.

I wish this report to be useful for Project Countries and Institutes and I offer my special thanks to the Project Management and other consultants for their contributions I work with.

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Abbreviations

EU	European Union
AFAD	the Disaster and Emergency Management Presidency, Republic of Turkey
AWRP	Anatolia Watershed Rehabilitation Project for Turkey
CDE	General Directorate of Combating Desertification and Erosion
MofEU	Ministry of Environment and Urbanization
EAWRP	Eastern Anatolia Watershed Rehabilitation Project
WB	the World Bank
DSİ	State Hydraulic Works
MofFAL	Ministry of Food Agriculture and Livestock
WMB	Watershed Management Board
WU	Watershed Unions
CC	Climate Change
MPGM	General Directorate of Spatial Planning
GDF	General Directorate of Forestry
MofFWA	Ministry of Forests and Water Affairs
NGO	Non-Governmental Organizations
SUEN	Turkey's Water Institute
SYGM	General Directorate of Water Management
NBMS	TURKEY National Basin Management Strategy

Executive Summary

The project “**Capacity Building for Sustainable Management of Mountain Watersheds in Central Asia and the Caucasus**” is funded by the FAO/Turkey Partnership Programme (FTPP) established over an initial period of five years (2007–2011) at the benefit of the countries assisted by the FAO Sub-Regional Office for Central Asia (FAO/SEC).

The expected long-term impact of the project is the decreased degradation and losses of soil, water and biodiversity resources, increased environmental, social and economic benefits from rehabilitated and sustainably managed mountain watersheds in both upstream and downstream areas in the project countries.

At the end of the project, **it is expected that public awareness and interest of policy and decision makers will be increased**; and knowledge and experiences of forestry and other related agencies will be enhanced about integrated (multi-disciplinary) and collaborative approaches to the implementation, rehabilitation and sustainable management of mountain watersheds.

As expressed in the project text, there is a need to increase awareness of the public, politicians and decision-makers on mountainous watershed rehabilitation and management.

One of the outcomes expected from this project, among other outcomes is, how to ensure the attention of the public, decision-makers and politicians.

In the stage of preparation of this report, some institutes and agencies working in mountainous watersheds examined, and the importance of the issue elaborated, studies conducted in Turkey revised. A special attention was given to awareness building and training activities carried out under GCP/SEC/002/TUR, then finally, recommendations are given on the subject.

1. Watershed Based Organizations

This chapter focuses on the concept of river basin in Turkey and other countries. Institutions working in the basin and their related legislations have been analyzed.

1.1. Turkey

Watershed management policies and activities are centrally planned in Turkey. National public institutions/agencies are in charge of planning, development, management, maintenance and monitoring and evaluations of programs related to land use and water resources. Local governments are typically involved during the implementation phase and non-governmental organizations are also indirectly involved in many activities¹.

When we examine the main watershed-based organizations in Turkey, as November 2014, the three Ministries appears to come first. They are The Ministry of Forests and Water Affairs, The Ministry of Food, Agriculture and Livestock, the Ministry of Environment and Urbanization. Together with these Ministries, Ministry of Development plays an important role with its agencies.

The Ministries and their relevant agencies with watershed management could be listed like below;

1. Ministry of Forests and Water Affairs

- a. General Directorate of Combating Desertification and Erosion
- b. General Directorate of Forestry
- c. General Directorate of Nature Protection and National Parks
- d. General Directorate of Water Management
- e. General Directorate of State Hydraulics Works

2. Ministry of Food Agriculture and Livestock

- a. General Directorate of Agricultural Reform
- b. General Directorate of Agricultural Research and Policy

¹ http://www.cem.gov.tr/erozyon/Files/moduller/havza/UHYS/Sector_Note.pdf

3. Ministry of Environment and Urbanization

- a) General Directorate of Naturel Heritage Protection
- b) General Directorate of Spatial Planning
- c) General Directorate of Environmental Impact Assessment, Permit and Inspection
- d) General Directorate of Environmental Management

4. Ministry of Development

- a) Southeastern Anatolia Project Regional Development Administration
- b) Eastern Anatolia Project Regional Development Administration
- c) Eastern Black Sea Project Regional Development Administration
- d) Konya Plains Project Regional Development Administration
- e) Development Agencies

5. Prime Ministry

- a) The Presidency of Disaster and Emergency Management- AFAD

Other Stakeholders;

- a) Civil society organizations
- b) Unions, Chambers
- c) Cooperatives
- d) Watershed Associations
- e) Rural communities living in the watersheds
- f) Urban communities
- g) Science and educational institutions (TUBITAK- THE SCIENTIFIC AND TECHNOLOGICAL RESEARCH COUNCIL OF TURKEY, Universities, Research Institutes etc.
- h) Private sector

1.2. Azerbaijan

In Azerbaijan there are several institutions, Ministries involving for watershed management. They can be listed like below:

- **Ministry of Ecology and Natural Resources**
 - Division of Ecology and Nature Protection

- Division of Environmental
- Department of Investment Innovation and Environmental Projects
- Department of Protection of Biodiversity and Development of Especially Protected Natural Reserves
- Scientific Center of Complex Hydrometeorology and Environmental Research
- Department of Environmental Protection
- Department of Forest Development
- Department of Reproduction and Protection of Bioresources at Reservoirs
- Department of National Hydrometeorology
- State Information Archive Foundation on Environment and Natural Resources
- Azerbaijan Greenery and Landscape System Public Corporation
- **Ministry of Agriculture**
- Ministry of Energy
- **Ministry of Emergency Situations.** This Ministry is a central executive body responsible for **protection of the population from natural** (geophysical, geological, meteorological, hydrological, maritime hydrological contingencies, natural fires, etc.) and man-made disasters, fire security **including forest fires, safety of people in water basins.**
- **Azerbaijan Amelioration and Water Farm Joint Stock Company (OJSC).**
 - OJSC is one of the main institutes responsible for watering and sanitization. The President of this organization is being appointed by the President of Azerbaijan. The official web page is <http://www.mst.gov.az>
 - The main unit based on Baku and it has regional/sub regional offices throughout the country.

1.3. Kyrgyzstan

Like in the other project countries, several institutions and initiatives involved watershed management in Kyrgyzstan. They could be listed like below;

- a) State Agency On Environment Protection And Forestry Under The Government

Of The Kyrgyz Republic- [Http://Www.Nature.Kg](http://www.nature.kg)

- a. Forest Ecosystems and Protected Areas Department
 - b. Forestry Management Department
 - c. Forestry and Hunting Department
 - d. International Relations Department
- b) Ministry of Agriculture and Melioration of the Kyrgyz Republic.
 - c) Ministry of Emergency Situation
 - d) National Academy of Sciences, Biology and Soil Institute

Rangelands are very important for watershed and daily life of the people. In Kyrgyzstan rangelands are under the responsibility of Ministry of Agriculture and Melioration.

Development Agencies like Turkish Cooperation and Coordination Agency (TIKA²), GIZ³, USAID, Swiss Aid and others are actively involved watershed related projects.

Some other initiatives like the **National Policy Dialogue on Integrated Water Resources Management** which is an ongoing initiative of the Ministry Of Agriculture And Melioration Of The Kyrgyz Republic (Department Of Water Management And Melioration) and European Union Water Initiative National Policy Dialogue Component for Eastern Europe, Caucasus and Central Asia, also play a crucial role.

According to the management structure of Kyrgyz Republic, State Agencies like the State Agency on Environment Protection and Forestry has the same statute with the Ministries. The President of this Agency has been appointed by the President and participates to Ministerial Meetings.

National Centre of Mountain Regional Development of Kyrgyz Republic⁴ could be a good example for other official initiatives. Several Civil Society Organizations also have important role on watershed management in Kyrgyzstan. CAMP Alatau www.camp.kg could be considered one of them. It is a non-profit and non-governmental organization founded in 2005 and a successor organization of the Central Asian

² www.tika.gov.tr

³ <https://www.giz.de/en/worldwide/356.html>

⁴ <http://www.mountainpartnership.org/members/members-detail/en/c/43372/>

Mountain Partnership (CAMP), a programme financed by the Swiss Agency for Development and Cooperation. Jointly with its partner organizations in Kazakhstan and Tajikistan, CAMP Alatau forms part of the CAMP Network, and its overall goal is to contribute to the improvement of people's livelihoods in the mountain villages of Kyrgyzstan by encouraging a more sustainable use of natural resources.

1.4. Uzbekistan

In Uzbekistan; The Ministry of Agriculture and Water Resources is the leading and responsible ministry for Watershed Management. Systematic management of forests in Uzbekistan dates back to **1897** when the first legislation related to forestry in Turkestan, the "Regulations on Forest Protection" was promulgated. This legislation framed the basic regulations for forest management and established a forest land-use register. Later, following the First Turkestan Congress of Foresters held in 1899, the "Law on Nationalization of Lands and Forests" was adopted in 1918. In compliance with this law, all forests in the Turkestan Republic became part of the State Forest Fund (SFF).

All forestland is the property of the State. **The Main Department of Forestry and Nature Protection**, which was originally established in 1945, went through a number of reorganizations and was transformed into the Main Forestry Department (MFD) in 2000 and was placed under **the Ministry of Agriculture and Water Resources**. The MFD is the principal government agency having the direct responsibility for administering the State Forest Fund (SFF). It consists of six divisions and manages 97 local departments and forestry enterprises

The State Committee for Nature Protection (SCNP) is responsible for coordinating nature protection activities, including implementing government policy on protection of the natural environment and use and restoration of natural resources. Within the SCNP, the **State Biological Control Service (SBCS)** is responsible for regulating the conservation of flora and fauna and for the sound management of protected areas. **The law on "Water and water use" was adopted in 1993 and 1996 respectively.**

The Department of Hunting, Reserves and National Parks (DHRNP) is directly responsible for the management of national parks, nature reserves and natural monument. In 2005, the Republican Scientific Production Center on Decorative Horticulture and Forestry (RSPCDHF) was established under the MFD on the basis of the former Uzbek Research Institute of Forestry.

1.5. Tajikistan

The following governmental institutions involved to the watershed works in Tajikistan:

- a) Environmental Committee Under Government Of Tajikistan
- b) Agency On Forestry Under Government Of Tajikistan
- c) Ministry Of Agriculture
- d) Ministry Of Energy And Water Resources
- e) Agriculture Academy Of Science Of RT
- f) Agency for Melioration and Irrigation under the Government of the Republic Of Tajikistan.

Turkish Cooperation and Coordination Agency (TIKA), German Technical Cooperation Agency (GIZ), Swiss Development Agency, JICA, KOICA, USAID are among the international development agencies working in Tajikistan.

FAO, IFAD, the World Bank, the GEF are among the United Nations institutions working actively. European Union supports some projects and plays a vital role in some initiatives.

The following non-governmental institutions are also involved to the watershed works in Tajikistan:

- Aga Khan Foundation⁵ and The Aga Khan Development Network (AKDN) ,
- Caritas International-CARITAS⁶,
- German Agro Action⁷-GAA

⁵ <http://www.akdn.org/tajikistan>

⁶ <http://www.caritas.org/>

⁷ <http://www.globalhand.org/en/organisations/24915>

Many local NGOs are receiving fund from the donors and international organization for watershed related issues, mostly from the GEF Small Grant Fund (UNDP), Christian Fund, EU and WB. Unfortunately the reports and information on the implemented projects are not available.

Table 1 Brief Information about Watershed Based Organizations

Country	Ministry/Institute	Web Page
Azerbaijan	Ministry of Ecology and Natural Resources	www.eco.gov.az/
	Ministry of Agriculture	www.agro.gov.az
	Ministry of Energy	www.minenergy.gov.az
	Ministry of Emergency Situations	www.fhn.gov.az
	Azerbaijan Amelioration and Water Farm Joint Stock Company	www.mst.gov.az
Kyrgyzstan	State Agency On Environment Protection And Forestry	www.nature.kg
	Ministry of Agriculture and Melioration	
	Ministry of Emergency Situation	
	National Academy of Sciences, Biology and Soil Institute	
	National Centre of Mountain Regional Development	
	CAMP Alatoo	http://camp.kg/
Uzbekistan	The Ministry of Agriculture and Water Resources	www.agro.uz/uz/
	The Main Department of Forestry and Nature Protection	
	The State Committee for Nature Protection	
	The Department of Hunting, Reserves and National Parks	
Tajikistan	Environmental Committee Under Government Of Tajikistan	
	Agency On Forestry Under Government Of Tajikistan	
	Ministry Of Agriculture	
	Ministry Of Energy And Water Resources	
	Agriculture Academy Of Science Of RT	
	Agency for Melioration and Irrigation	
	The Aga Khan Development Network (AKDN)	www.akdn.org/tajikistan

	Caritas International-CARITAS	www.caritas.org/
	German Agro Action-GAA	www.globalhand.org
Turkey	Ministry of Forests and Water Affairs	www.ormansu.gov.tr
	Ministry of Food Agriculture and Livestock	www.gthb.gov.tr
	Ministry of Environment and Urbanization	www.csb.gov.tr
	Ministry of Development	www.kalkinma.gov.tr
	The Presidency of Disaster and Emergency Management	www.afad.gov.tr

1.6. Assessment

Sufficient resources related to “The Role of Training and Awareness Creation for Development of Watershed Rehabilitation and Management” which is the objective of preparing this report could not be reached. Basically it has been tried to benefit from the field trip experiences done in the two project countries (Azerbaijan and Kyrgyzstan), and for the other countries from the web pages and from the national consultants reports. **The inadequate English web pages of project countries come out as a significant deficiency.**

Uzbekistan, Tajikistan and Kyrgyzstan shared the same watershed and the international cooperation for constituting the training and awareness and the presence of institutions directed towards this objective are considered as very important. These issues will be mentioned in the recommendations section in particular.

It is considered as more effective the role of non governmental organizations having their activities at local, national and global level in developing education and awareness, then public institutions. Supporting these NGO’s by the government institutions and international donors, and on the **other hand to constitute a network between them selves** will serve for obtaining effective results.

On the other hand the awareness of the local population, which are the most important partners on the watershed management, in the sustainable use and management, include them in a training during their work regarding the incorrect applications and the things that could be done, showing them on site the examples in other places and in other countries will be extremely useful.

The field visit of Telman Villagers to Turkey organized in the scope of the project considered very important and they are expected to be different in any case for their subsequent applications.

2. The importance of Awareness and Education related to Watershed

This chapter focuses on the importance of education and awareness creation activities on the watershed rehabilitation and management, it has been discussed on if this is a need or not and the target audiences, their needs and expected outputs are examined. In this context the **subject were examined with sections as; decision-makers, people living in mountainous watersheds, public institutions involved in watershed activities, non governmental organizations and general public.**

2.1. Decision Makers

As it was correctly stated in the project text, **it is a need to increase the awareness of the public, the politicians and the decision-makers** in the Project Countries on the “watersheds rehabilitation and management” issue.

The most important output expected from this project beside the other outputs; it is how to ensure the attention of the politicians and the decision-makers and what can be done about that issue. For that, it is expected to benefit from Turkey’s experiences. Politicians and decision-makers are a part of the public. The interest of people in general on a subject also affects the politicians and the decision-makers. Public is interested in all over the world on what they see, hear and feel. **The extreme conditions further increase the public interest.**

Under normal conditions forests doesn't come to order but during a fire it takes place in the news and headlines. When there is a disaster, a torrent and floods, when the water is cut-off or a long-term drought, people are interested in "water" management. The forest fires are increasing the budget allocated to the forest administration, and the wars increase the budget allocated to the defense industry.

But the "politicians and decision-makers", who are attendant of planning the future of countries, must think differently from general public, do plans covering long periods, see the background of facts and not only the face of these and the reasons and solutions. And they are also expected to orientate correctly the general public in the correct manner.

The laws and secondary regulations are the most important factors in "decision-makers" decision making. The Turkey's Grand National Assembly makes the resource allocation in accordance with the preferences and decisions of the institutions, the applications are also conducted in this framework.

When we look from the project framework what are expected from the **informed and educated decision-makers** can be summarized as **"regulating legislations, realizing the institutional structure and the allocation of the necessary budget"**

From this point of evaluation we can say that *looking the Turkey example, decision makers have the sufficient conscious*, that the required necessary legislative base has been established and the necessary institutions are built. **However the failure to provide the "required coordination between institutions" is considered as the major deficiency.**

"Watershed" related matters taking place in the Turkish legislation are examined below in detail. **As the legislative base is extremely important for "awareness creation" a detailed place was given to the legislation.**

Even if there is not a direct mention to the “watershed management” in the *Constitution of the Republic of Turkey*, which is still in force, there are some important issues about the important elements of the watershed as: water, forest, land, use of natural resources, agricultural activities and other subjects.

According to the article 44 of the Constitution “the soil protection, its development and preventing the loss with erosion” and giving lands to villagers, who are the most important partners of the watershed, are ensured under provisions. The Constitution’s article 169 is related to forests and the article 170 is related to the “forest villagers”.

“The integrated participatory watershed projects” mention took place in its clearest form in the 58th article of the Forest Law number 6831 rewritten in 2003. This article include the provision saying that “Activities of afforestation, erosion and flood control, prevention of avalanches and landslides, conservation and development of ecosystems and the improvement of **people’s** living conditions **living in watersheds**, on **watershed basis**, are applied with **integrated projects** prepared under the coordination of the Ministry of Environment and Forestry jointly with the related institutions”.

Law on Waters⁸ No.831 dated 1926, is still in force with several changes. This Law contains particularly provisions related on how to deploy available drinking water resources but general purposes are not taking place. In order to overcome this deficiency the preparations for a new Water Law⁹ are ongoing. In the framework of this Bill still being discussed in the Parliament Commissions:

- To go for a restructuration in the Water Mngement constituted of “High Council of Water Management, Water management Coordination Committee, **Watershed Board of Directors, State Water Management Coodination Committee,**
- Preparation of **watershed management plans** and flood management plans,

⁸http://www.ormansu.gov.tr/osb/Libraries/Dok%C3%BCmanlar/831_say%C4%B1l%C4%B1_Sular_Hakk%C4%B1nda_Kanun_4.sflb.ashx

⁹http://www.ormansu.gov.tr/osb/haberduyuru/guncelhaber/14-08-06/Su_Kanunu_%C4%B0le_Su_Y%C3%B6netiminde_Yeni_Bir_D%C3%B6neme_Ge%C3%A7ilecek.aspx?sflang=tr

- In addition, **it is aimed to authorize the Ministry of Forestry and Water Affairs for the management coordination of water resources on the river basin basis, including wastewaters.**

The foundation laws of the Ministry of Forestry and Water Affairs, the Ministry of Food and Agriculture and Live stock, the Ministry of Environment and Forestry, the Soil Conservation and Land Use Law and the Pasture Law give place to important purposes about “watershed management”.

Many article of the “Decree Law related to the Organizations and the Duties of the Ministry of Forestry and Water Affairs dated of the 4th of July 2011, are related to watershed management and waters.

According to that;

- According to “the Decree’s **2nd article** the **Ministry of Forestry and Water Affairs** function is to “Create policies related to the sustainable use and the conservation of water resources, coordinate the national water management”
- According to the **7th article, the General Directorate for Combating Desertification and Erosion is responsible** : “With the aim of soil conservation and the natural resources improvement; on watershed integrity basis, combating desertification and erosion, realization of integrated rehabilitation plans and projects with avalanche, landslide and flood control, monitoring the application, support these activities on a project basis, determination of policies and strategies related to these works and procedures, ensure the cooperation and coordination between relevant institutions and organizations” and “making on national and regional plans for the development of watershed and determine policies and strategies.”
- **According to the 8th article the General Directorate of Nature Conservation and National Parks is responsible of:** “the conservation, improvement of forests sources, streams, lakes, ponds and wet lands and sensitive areas”
- **According to the 9th article the general Directorate of Water Management is responsible of;** “preparation, to make prepare the watershed management plans on watershed basis, to carry out legislative activities related to the

integrated river basin management, to do the necessary coordination related to water resources allocation, on sectoral basis, accordingly to the river basin management plans.

Accordingly, the three principal units of the Ministry of Forestry and Water Affairs are also assigned on issues related to watershed and water. In addition the 21st article of the Decree with the “National Wet Land Commission” and the “Water Commission” has been established.

On the other hand, we can see also that the connected units of the General Directorate of Forestry, the General Directorate of State Hydrolic Works and Water Institute of Turkey have functions related to watershed and water.

The General Directorate of Forestry is charged of “making and implementing integrated watershed projects”. The Soil Conservation and Watershed Rehabilitation Department of this General Directorate is responsible is charged of;

- “Obtaining a maximum amount of water of quality from waterheds, prevent erosion, control the torrents, avalanches and floods, to be in cooperation with the relevant institutions for the conservation of the soil, water and plant balance , **and do and make do the works and procedures required by the watershed rehabilitation master plan prepared in a participatory approach, to put into practice the integrated watershed rehabilitation projects and monitoring, evaluating the investments taking place in the plan, and to report to the relevant units the projects informations** and when required, to assure the realization,
- Carrying out the works on combating desertification,
- In forest lands or fields that will be taken into forest regime affected by erosion; stop the soil erosion and sedimentation, control the floods and torrents, make or make-make erosion control works in water collecting watersheds with the aim of preventing the avalanches and landslides in watersheds of streams, creeks and rivers,

- Making or make-make rehabilitation works in forests, on the edge of forests and on rangelands in the upper limit of forests,
- **Combating erosion in order to conserve the soil in the mountainous areas**, to improve water resources and to establish and develop the forest ecosystem, and to do the required works.

When these articles are analyzed, we can see that the following issues: watersheds, integrated watershed rehabilitation, water catchments, mountainous areas are taking place with the most tidy manner within the functions of the Soil Conservation and Watershed Rehabilitation Department of the General Directorate of Forestry.

According to the 2nd article of the “Decree on the Organization and Duties of the Ministry of Food, Agriculture and Livestock” number 639, in addition to its other duties, it has been appointed for the **“rural development, conservation of soil and water resources” also.**

According to the 7th article of the “Decree on the Organization and Duties of the Ministry of Environment and Urbanization” published on the 4th of July 2011 in the Official Gazette, the General Directorate of Spatial Planning is also authorized in watershed planning. This General Directorate is appointed to “Determine the procedures and principles regarding the construction planning and all kind and scale of landscaping plans including those in watershed and regional basis, making landscaping plans on watershed and regional basis, and have make and approve these works and to ensure the realization and the supervision of the implementation of these plans.

The Soil Protection and Land Use Law, number 5403, published in the Official Gazette the 19th July 2005¹⁰ includes matters related to watershed. According to the 15th article of this Law entitled “determination and protection of erosion sensitive areas”, the Ministry of Food, Agriculture and Livestock is charged of:

- Determining the erosion sensitive areas, to promote the preparation of land use projects for these areas,

¹⁰<http://www.resmigazete.gov.tr/main.aspx?home=http://www.resmigazete.gov.tr/eskiler/2005/07/20050719.htm&main=http://www.resmigazete.gov.tr/eskiler/2005/07/20050719.htm>

- Taking the necessary measures in collaboration with non governmental organizations and relevant public institutions and organizations in areas exposed to the desertification where we can see land degradation due to various reasons as climate change and human activities in arid, semi-arid and low rainfall areas,
- Making regulations for determining the principles and procedures relating to the identification and protection of erosion-sensitive areas.

With the Prime Ministry circular number 2012/7 published in the Official Gazette of the 20th March of 2012¹¹ the “Water Management Coordination Committee” was constituted. In the integrated watershed management of the “National Watershed Management Strategy (2014-2024)” published in the Official Gazette of the 4th of July 2014 and entered into force, has become a new milestone for the “awareness and training” of the decision-makers.

Some of the legislation examined in the framework of this report is given in the table below.

Table 2 Main Turkish Legislation about Watershed Management

Order	Name of the Legislation/Article/Explanation
1	Constitution/44-Erosion/169-Forest/170-Forest Dependent Villagers
2	6831- Forest Law
3	831 Law on Water
4	Draft Law on Water- Being discussed in Parliament Commission
5	645- “Decree Law related to the Organizations and the Duties of the Ministry of Forestry and Water Affairs dated of the 4 th of July 2011
6	Decree on the Organization and Duties of the Ministry of Food, Agriculture and Livestock” number 639
7	644 -“Decree on the Organization and Duties of the Ministry of Environment and Urbanization” published on the 4 th of July 2011
8	The Soil Protection and Land Use Law, number 5403, published in the Official Gazette the 19 th July 2005

¹¹<http://www.resmigazete.gov.tr/main.aspx?home=http://www.resmigazete.gov.tr/eskiler/2012/03/20120320.htm&main=http://www.resmigazete.gov.tr/eskiler/2012/03/20120320.htm>

9	Prime Ministry circular number 2012/7 published in the Official Gazette of the 20 th March of 2012 ¹² the “Water Management Coordination Committee
10	“National Watershed Management Strategy (2014-2024)” published in the Official Gazette of the 4 th of July 2014

Table 3 Assessment of the Status of Senior Decision-Makers in Turkey

We can see that the fact that decision makers have enough information and interest relating the watershed management is extremely important in terms of sustainability and to ensure the necessary finance and supports. From this point of view, it has been detected that the Turkey’s decision makers are interested in the subject closely, and that they provide the necessary support related to the legislation, institutional arrangements and financial supports.

Following institutions have contributed to this;

- As of the 2014 November, 12 Forestry Faculties and Agriculture Faculties, relevant colleges, forestry research institutes,
- Forestry Agencies back to 1839,
- Official Unions and Chambers founded by the people related to the forestry sector like; Chamber of Forests Engineers having more than twelve thousands members, Forest Cooperatives founded by Forest Villagers under the umbrella of The Central Union of Turkish Forestry Cooperatives, Sector Unions established under the Union of Chambers and Commodity Exchanges of Turkey (TOBB) which is the highest legal entity in Turkey representing the private sector,
- Subject oriented sivil society organisations like The TEMA Foundation (The Turkish Foundation for Combating Soil Erosion, for Reforestation and the Protection of Natural Habitats, Soil Science Society of Turkey, The Foundation of the People Caring for Future-CARFU,
- Project financed by the FAO, World Bank, IFAD, GEF and relations with these agencies.
- Close cooperation with JICA, GIZ, TIKA

¹²<http://www.resmigazete.gov.tr/main.aspx?home=http://www.resmigazete.gov.tr/eskiler/2012/03/20120320.htm&main=http://www.resmigazete.gov.tr/eskiler/2012/03/20120320.htm>

- The politicians having forestry and agricultural background
- Lessons learned from different kind of disaster like flood, torrent, drought, forest fires etc.
- Well educated and visionary human resources
- Hosting important international organizations like World Forestry Congress, United Nations forum on Forestry, Conference of the Parties of the United Nations Convention on Desertification

2.2. Rural Population Living in Mountainous Watershed

People living in the watersheds must abandon the improper use of lands and to better use soil and water resources: particularly the Ministry of Forestry and Water Affairs and the Ministry of Food, Agriculture and Livestock, other public institutions and relevant non governmental organizations are doing some training and awareness activities.

On the other hand, it must be shared that the “watershed” subject, widely taking place in the legislation, is not settled exactly in the application, and that the subject wasn’t on a wide perspective as it should be, but that it was concentrated rather on water supply for drinking water, for usage and for agricultural use.

2.3. Watershed Based Public Agencies and Civil Society Organisations

The public institutions are basically fulfilling duties given by the legislation (Constitution, Law, Statutes, and Regulations etc.). As it was discussed in detail in the decision-makers section, the watershed management is considered to adequately be involved in the Turkish legislation.

However, as there are many Ministries and units connected to Ministries authorized and assigned in the watershed management, that we can that “working integrately” between them is difficult. It should be taken into consideration that the implementation of the “National Watershed Management Strategy” between 2014-

2023 was issued as a High Planning Decision with taking into account the necessity of coordination between different Ministries and units.

Table 4 CAMP Alatoo¹³

CAMP Alatoo is a leading regional Central Asian nongovernmental organisation. We are known for our innovative approaches and tools on Integrated Natural Resource Management which are widely disseminated throughout local communities. CAMP Alatoo is a regional Public Foundation consisting of a highly motivated team managed by democratic principles. Actively we promote improvements in the livelihoods of Central Asian communities, based on integrated natural resource management. We develop, adapt, and implement with global and local experience.

CAMP Alatoo has a sustainable partnership network: NGOs, advisory services, local experts, government agencies, scientific, and educational institutions. The Foundation considers one of its strategic objectives is to further expand and strengthen the partnership network, as well capacity building of organizations working in the field of management of natural resource and development of mountain communities.

The Foundation seeks to adhere to the principles of openness, transparency, and accountability to the public by active exchange of information between the Foundation and beneficiaries, donors and partners, as well as effectively to respond to information inquiry from various stakeholders, and thereby, to establish more open and active communication with the public.

CAMP Alatoo operates in the field of sustainable management of natural resources at watershed level.

2.4. General Public

The role of non-governmental organizations and media is important to increase the awareness of the general public. When we look through Turkey’s model, the “Turkey

¹³ <http://camp.kg/>

Combatting Erosion, Afforestation and Natural Beings Conservation - TEMA¹⁴” is emerging as a success story worldwide.

TEMA, founded in 1992, has more than 500.000 members as of November 2014. TEMA was organized all around Turkey, totally by its own resources, carries out projects and donations, and has contributed in raising awareness on subjects such as combatting erosion, watershed management and afforestation. TEMA has played an effective role in educational institutions with its programs like Little TEMA, Young TEMA, Secondary School TEMA, High School TEMA. Besides TEMA appealing to all Turkish public, there are some non-governmental organizations like the Turkey Soil Science Association which has very active and mostly academic members. In materials product in meetings held by these associations the “integrated watershed subject” is taking place in a manner.

On the other hand, even though it is not exclusively on the watershed subject, there are many media programs broadcasting on “agriculture, environment, forest, sustainable development etc..” subjects.

Table 5 Some Examples of Turkish Media

Order	Name	Web Page	Ownership
1	Voice of this Soil	http://www.bts.gen.tr/	State/TV- Turkish Radio and Television Corporation
2	Blue Ball	https://www.facebook.com/trtradyo1mavibilye	State/Radio/- Turkish Radio and Television Corporation
3	Voice of Meteorology	http://www.radyo.mgm.gov.tr/	State/Radio/Ministry of Forests and Water Affairs
4	AgricultureTurk	http://www.tarimturk.tv/	TV/Private
5	Agriculture TV	http://www.tarimtv.gov.tr/	State/Ministry of Food Agriculture and Livestock

As it was mentioned in relevant sections, even though subjects such as “watershed, integrated watershed management, mountainous watershed management” are taking

¹⁴ www.tema.org.tr

place in the legislation, it is a new subject for Turkey as a whole. It can be considered even as a subject not yet begun.

The knowledge and interest level “related to watershed” is considered to be extremely poor. The subjects as water, forest, rural development, agricultural products, combating erosion which are highly interrelated are taken into consideration independently, each institution and person mentions to issues related to itself, and become instructed.

When we look in this respect, it is considered that this project point to an extremely important problem and with developing further, “the integrated watershed management” subject can play an activating and guiding role.

3. Still Ongoing Activities – Turkey’s Model

In this section are examined the ongoing activities, results, experiences gained in Turkey and in other project countries. Although it was intended to provide information to project countries, examination and evaluation of generating awareness and training carried out by institutions, as there were difficulties to provide information, the Turkish experiences were written. However, in the framework of informations and reports accessible, activities taking place in other countries are mentioned too but shortly.

3.1. Activities carried out by institutions

In this section, the education and awareness activities carried on “Regarding the Watershed Rehabilitation and Management” are considered as a whole.

To be an example for educational activities, the leading two of the Faculties, where the watershed subject is instructed as a lesson, have been examined.

3.1.1. Watershed Management in Karadeniz Technical University and Istanbul Technical University

The one of 8 departments in the Department of Forest Engineering of the Forestry Faculty is defined as the “Watershed Management Department”. It has been seen that

this lesson is taught obligatorily in the 3rd class, in this department teaching for 4 years.

The objectives of the lesson are determined to;

- Provide the basic knowledge and concepts on watershed management to students. Teaching the basic principles and watershed processes.
- Adopt the basic facts of rainfall-runoff relations, hydrological cycle, land use patterns, to make them comprehend the technics of the watershed management.

The content of the lesson has been defined as: the production of desired water quality and amount in the water catchment, and manage and use in the best way the land with erosion and floods¹⁵ control.

We can see here that there were not any references concerning the training of “decision-makers, public, public institutions, non-governmental organizations...” trainings and awareness raising activities.

The lesson called “Erosion and Flood Control”¹⁶ instructed in one period can be connected to the “watershed” subject. However in the content of this lesson “education and awareness-raising” issue was not included in the content.

One of the 12 Departments of the Forest Engineering in the Forestry Faculty is the Department of “Watershed Management” department. The basic subjects included in the scope of the teaching and research training of the Watershed Management Department are; subjects as soil physics, hydrometeorology, forest and rangeland hydrology, forestry methodology, soil erosion with range management and ecology, soil and water conservation, land classification and rehabilitation, water quality and pollution, watershed management, arid region rehabilitation, planning of water resources, related to environmental issues, but there are no issues relating the “training and awareness –raising”.

¹⁵ <http://www.katalog.ktu.edu.tr/DersBilgiPaketi/course.aspx?pid=23&lang=1&dbid=36968>

¹⁶ <http://www.katalog.ktu.edu.tr/DersBilgiPaketi/course.aspx?pid=23&lang=1&dbid=51278>

3.1.2. In Service Trainings

As a part of the training in-service in addition to the trainings provided during education, in the scope of the in-service trainings provided by institutions, trainings toward “integrated watershed management” are realized also.

Some examples;

Table 6 Examples of the Inservice Training in Turkey

Name of the Institution	Name of the Workshop/Training Programme	Date	Place
GD of CDE	Watershed Planing and Project	2014	Afyonkarahisar
GD of CDE	Watersed Management	2014	Çorum
GD of CDE	International Participatory Integrated Watershed Management	2013	Mersin-Kahramanmaraş
GD of CDE	Watershed Planing and Project	2012	Antalya
GDF	Soil Protection, Watershed Rehabilitation and Afforestation	2014	Mersin
GDF	Participatory Integrated Watershed Management	2013	Antalya
GD of WM	International Participatory Integrated Watershed Management	2014	Ankara
GD of WM	Watershed Planing and Project	2013	Afyonkarahisar

3.2. International Watershed Rehabilitation Project

As an example of international projects, the following four have been examined.

- a) Eastern Anatolia Watershed Project¹⁷-the World Bank
- b) Anatolia Watershed Rehabilitation Project¹⁸ -the World Bank
- c) Çoruh River Watershed Rehabilitation Project¹⁹- JICA
- d) Murat River Watershed Development Project²⁰-IFAD

First watershed based activities in Turkey were initiated with the idea of erosion and afforestation projects, diminishing the negative effects of floods and overflowing's and ensuring the safeties of the present dams by this way. First implementations in upper

¹⁷ <http://www.worldbank.org/projects/P009023/eastern-anatolia-watershed-project?lang=en>

¹⁸ <http://www.worldbank.org/projects/P070950/anatolia-watershed-rehabilitation-project?lang=en>

¹⁹ <http://www.coruhhavzasi.com/en/9-proje-hakkinda-genel.html>

²⁰ <http://www.ifad.org/operations/pipeline/pn/turkey.htm>

watersheds were conducted as reducing the soil erosion, establishments to regulate the water flowing regime and afforestation. Meanwhile, various supports have been provided to the local people together with the conservation of the natural plant cover and regulation of the grazing in range lands. Insulation measures have been improved in the households to decrease the fuel wood consumption.

Eastern Anatolia Watershed Rehabilitation Project, first generation watershed rehabilitation Project funded by the World Bank, accepted the integrated participatory approach and implemented the joint working Project approach both for the local people and all the related government units. All these activities targeted the upper parts of the watershed.

Conservation and rehabilitation of the natural resources have been targeted and in order to reach the target, income generating activities aiming at increasing the life standards of the local people and training activities for the local people regarding the conservation and sustainable use of the natural resources have been conducted. Capacity building for the related institutions has also been targeted while training of the local people.

Anatolian Watershed Rehabilitation Project, second generation integrated watershed rehabilitation Project, aimed at integration of natural resources conservation and rehabilitation with income generating activities in selected micro catchments by taking into consideration of whole watershed area. Capacity development of the related institutions was aimed at together with the training of the people. In the sustainable watershed management, it was aimed at decreasing the pollution levels of underground and surface waters caused by livestock activities and the use of fertilizer and pesticide in agricultural areas, which would lead to the decrease in nutrition material carried into the seas. It was aimed at monitoring water pollution, supporting organic agricultural activities, replicating these activities countrywide and contributing to the implementation of the EU Nitrate Directive.

Çoruh River Watershed Rehabilitation Project is a similar Project to the previous projects, in a region of the country with different features. Beyond all these activities, it was also aimed at replicating and contributing to the solar power panels and micro hydro electrical systems which are renewable energy resources in order to reduce the use of fossil fuels.

Due to the heavy erosion in the watershed, there is strong risk of quick filling in a short time period and decreasing in economic lives of the completed, under construction and planned dam reservoirs. Therefore, watershed rehabilitation activities were targeted to be conducted in the region.

Project with its local and national scale justifications, is directly related to the global level problems such as climate change and desertification/land degradation.

Murat River Watershed Development Project: The project develops around three complementary components, which comprise capacity building in the co-management of natural resource rehabilitation and care; investments in shared natural resources (land, soil, vegetation, water and energy); and investments in private agricultural-based income-generating activities utilizing the enhanced economic carrying capacity of accessible land. Specifically, project components are as follows:

- Natural resources and environmental management. This component aims at improving beneficiaries' capacity to manage natural resource assets. The crucial activity is the development of enhanced modalities for sustainable natural resource rehabilitation and use, in support of the Government's programme of environmental remedial works in the upper watersheds.
- Investments in natural resources and environmental assets. The aim of this component is to increase the sustainable economic carrying capacity of the Murat River watershed. The component consists of natural resource rehabilitative measures to be implemented by village communities under the direction of the regional General Directorate of Forestry. The component would provide a menu of activities that are focused on three interrelated natural resource elements: land, soil and vegetation; water; and energy. The objective

would be to rehabilitate damaged natural resources and protect them from further degradation, erosion and pollution.

- Investments in small-scale agriculture. The component aims at increasing profitable small-scale agricultural production. Small-scale agriculture would be supported on private land to boost earned incomes and to make better use of the improved land and water resources. The project would promote animal husbandry, horticulture, forage and field crops to increase the self-sufficiency of forest villages in agricultural production²¹.

4. Education and Awareness Constituting Activities carried in the scope of this Project;

In the scope of the “Capacity Development project for the Sustainable Management of Mountainous Watershed in Central Asia and the Caucasus” *awareness constituting and training activities* have been carried out.

In this scope;

- “International Watershed Planning and Project Training” has been realized from 5 to 9 November 2012 in Antalya. A total of 76²² people have participated to this training included 60 people from various institutions in Turkey and 16 from other project countries.
- The training named “Integrated Participatory Watershed Management: Planning, Rehabilitation and Revenue-Increase” has been realized on the 27 May to 2 June 2013 in Mersin. 56 People from Turkey, FAO and other project countries have been participated²³.
- “Seed, Nursery and Arid Lands Reforestation Technics” training has been realized from 7 to 13 April 2014 in Eskişehir, and 55 people have been participated.

²¹ <http://muratnehrihavzasi.ogm.gov.tr/en/index.asp>

²² <http://www.cem.gov.tr/erozyon/Files/000projeler/oak1/Kat%C4%B1%C4%B1mc%C4%B1%20Listesi.pdf>

²³ <http://www.cem.gov.tr/erozyon/Files/000projeler/oak2/Kat%C4%B1%C4%B1mc%C4%B1%20Listesi.pdf>

- “Integrated Participatory Watershed Planning Workshop” has been realized from 19 to 21 May 2014 in Kyrgyzstan, an appropriate participation²⁴ from Turkey and Kyrgyzstan was ensured. During this workshop, one-to-one interviews were conducted with local people by the Project Committee and “integrated watershed management” issues were discussed.
- A visit to Azerbaidjan has been realized from 22 to 24 July 2014²⁵, all relevant authorities were visited there particularly the Minister of Ecological and Natural Resources, the watershed management and cooperation subject was discussed.
- The technical visit “Integrated Watershed Management and Income Generating Activities” was realized from 24 to 26 September 2014 in Mersin²⁶. The Kyrgyzstan equip constituted of 10 persons including the local administrators living in the micro-catchment of Cholok Kaiyndyn in Kyrgyzstan, the village committee members and the forestry agency representatives participated and they examined the land to see the sample practices relating the activities applied on micro-catchment, on land.
- Two posters and two brochures were prepared under the project.
- With the collaboration of the other advisors of the project, the Regional Coordinator and the FAOSEC equip, the “Çolak Beech Micro Catchment Watershed Integrated Participatory Rehabilitation Plan” was prepared and the issues below related to “education and on creating awareness” are ensured to take place in this plan:
 - In-service training in Turkey and Kyrgyzstan,
 - Training for the administrators and public living in this watershed (realized during September 2014)
 - Technical aid.

²⁴ <http://www.gonder.org.tr/wp-content/uploads/2014/06/%C3%87a%C4%B1%C5%9Ftay-G%C3%BCndemi-%C4%B0ngilizce.pdf>

²⁵ <http://www.ormansu.gov.tr/osb/haberduyuru/duyurular/14-08->

[12/Azerbaycan a S%C3%BCrd%C3%BCr%C3%BClebilir Havza Y%C3%B6netimi Deste%C4%9Fi.aspx?sflang=tr](http://www.ormansu.gov.tr/osb/haberduyuru/duyurular/14-08-12/Azerbaycan_a_S%C3%BCrd%C3%BCr%C3%BClebilir_Havza_Y%C3%B6netimi_Deste%C4%9Fi.aspx?sflang=tr)

²⁶ <http://www.cem.gov.tr/erozyon/anasayfa/resimlihaber/14-09->

[30/Orta Asya ve Kafkaslardaki Da%C4%9Fl%C4%B1k Havzalar%C4%B1n S%C3%BCrd%C3%BCr%C3%BClebilir Y%C3%B6netimi %C4%B0%C3%A7in Kapasite Geli%C5%9Firme Projesi Kapsam%C4%B1nda Mersin%E2%80%99de Teknik Arazi %C4%B0nceleme Gezisi Ger%C3%A7ekle%C5%9Ftirildi.aspx?sflang=tr](http://www.cem.gov.tr/erozyon/anasayfa/resimlihaber/14-09-30/Orta_Asva_ve_Kafkaslardaki_Da%C4%9Fl%C4%B1k_Havzalar%C4%B1n_S%C3%BCrd%C3%BCr%C3%BClebilir_Y%C3%B6netimi_%C4%B0%C3%A7in_Kapasite_Geli%C5%9Firme_Projesi_Kapsam%C4%B1nda_Mersin%E2%80%99de_Teknik_Arazi_%C4%B0nceleme_Gezisi_Ger%C3%A7ekle%C5%9Ftirildi.aspx?sflang=tr)

- In addition to these issues, the subject have been raised before TİKA and FAO accordingly, it has been included in the agenda of the meetings of the Joint Economic Committee held between Turkey and the Project Countries, it has been examined during cooperation agreements and in high level speech texts in detail.

5. Recommendation to Other Countries in light of Experiences Obtained

In this section experiences obtained are evaluated and recommendations have been made concerning the feasibilities in national and also in international level, and the international cooperation possibilities are examined under a separate heading.

5.1. International Cooperation Directed Recommendations

As it was mentioned in related sections, one of the quick and easy ways of “getting awareness” is that the subject takes place in the legislation. The International agreements realized accordingly to the procedure, as it is in Turkey, is one the most important elements of the international legislation.

The Integrated Watershed Management is being considered as one of the effective possibilities for combating “desertification, land degradation and drought”, and the project countries are countries that felt seriously these problems. In this context international cooperations that will be done concerning the “integrated watershed management” is expected to contribute on the international level on “creating awareness and education”.

A detailed table related on international institutions working actively in Project Countries and processes is given below. The fact that these institutions take the “integrated watershed management” subject in their agenda will give positive results in terms of creating awareness and education.

Recently, some positive developments related to that emerged. As some examples to that;

- A cooperation agreement in “forestry” between Turkey and FAO was signed on the 4th of June 2014. In the framework of this agreement project in FAOSEC Countries, including the subject “integrated watershed management”, will be applied.
- During the 5th General Assembly held in Bakou the 13 June 2014 of the Turkish Speaking Countries Parliamentary Assembly (TÜRKPA) the “TÜRKPA Environmental and Natural Resources Committee” has been constituted. The Committee’s first meetings agenda has been defined as “Combating with Desertification in TÜRKPA Countries”.
- Under the umbrell of the ““The Conference on Interaction and Confidence-Building Measures in Asia (CICA)” all the project countries are members, “International Training Center for Combating Desertification in Asia” is going to be established by the General Directorate of Combating Desertification of Turkey in Konya very soon.
- In the scope of “The International Fund for Saving the Aral Sea (IFAS)” which is supported by the World Bank, a well-attended meeting was held on October 2014 hosted by Uzbekistan.
- Between Turkey and Kyrgystan, Azarbaijan, Uzbekistan and Turkmenistan “cooperation agreements” has been signed.

In this framework we can say that:

- Subjects such as integrated watershed management, mountainous river basin management and the improvement of living conditions of people living in mountainous regions can be also included in “Cooperation Agreements” and to “Mixed Economical Committee Meetings”.
- Existing initiatives as “The International Fund for Saving the Aral Sea (IFAS), CAMP Alatau, Central Asian Countries Initiative for Land Management (CACILM), Central Asian Mountain Partnership (CAMP), MountainPartnership (FAO), National Policy Dialogues (NPDs) on Integrated Water Resources Management can be supported.

- Under the cooperation of international development agencies as TİKA, GIZ, USAID, SWISS AID, KOICA, JICA an initiative as the “Integrated Watershed Management Cooperation Partnership” can be initiated.
- In addition to these development institutions; various initiatives can be launched through non governmental organizations as The Turkish World Parliamentary Association, GONDER, ADEN, TEMA, TTBD, TEMA, CAMP Alatoo etc.
- The subject “integrated watershed management” as one of the fundamental issues of the “International Education Center for Combating Desertification in Asia” which is on the way of establishment in Turkey, can be determined within CICA
- “United Nations Convention to Combat Desertification 12th Conference of the Parties” that will be held in Ankara in 2015 and during “EUROSOIL 2016” Congress that will be held in 2016 in Istanbul, subject related to watershed can be considered in the agenda.
- In the framework of the Cooperation Council of Turkish Speaking States and Parliamentary Assembly of Turkish Speaking Countries; an initiative such as International Organization of Turkish Culture (TÜRKSÖY) or the European Ministry Conference for the Forest Conservation can be initiated. “Turkish World Ministry Conference for Mountainous Watershed Conservation” can be organized.
- Similarly to the “combating desertification training” organized regularly the last years by the General Directorate of Combating Desertification and Erosion, the “International Integrated Watershed Management” can be organized. The “International Watershed Management Seminary”²⁷ organized by the US Forest Service for long years can be considered as a case study.
- As it was mentioned in the previous section, the “TÜRKPA Environment and Natural Resources Committee” established under the Parliamentary Assembly Of Turkish-Speaking Countries, similar committees under the regional initiatives with the name “integrated watershed management” can be established.

²⁷ <http://www.fs.fed.us/global/is/welcome.htm#watershed>

Table 7 International Initiatives Organisations and CSO's in Project Countries

Order	Name	Web Page
1	The Cooperation Council of Turkic Speaking States (Turkic Council)	http://www.turkkon.org/
2	The Parliamentary Assembly Of Turkic-Speaking Countries	http://www.turk-pa.org/
3	Turkish World Parlementary Association	http://www.turkdpd.org/
4	Turkish Cooperation and Coordination Agency	http://www.tika.gov.tr/
5	International Organisation of Turkic Culture	http://www.turksoy.org.tr/
6	Republic of Turkey Turks and Related Communities Abroad Presidency	http://www.ytb.gov.tr/
7	Ministry of Foreign Affaires of Turkey	www.mfa.gov.tr
8	Ministry of Food Agriculture and Livestock of Turkey	http://www.tarim.gov.tr/
9	Ministry of Forests and Water Affairs of Turkey	www.ormansu.gov.tr
10	The TEMA Foundation (The Turkish Foundation for Combating Soil Erosion, for Reforestation and the Protection of Natural Habitats)	www.tema.org.tr
11	The Foundation of EuroAsia Nature and Training-ADEN	
12	The People Caring for the Future-CARFU	www.gonder.org.tr/ www.carfu.org
13	USAID	http://www.usaid.gov/
14	Aga Khan Foundation	http://www.akdn.org/akf
15	GIZ	http://www.giz.de/en/html/index.html
16	Asian Development Bank	http://www.adb.org/
17	CAMP Alatoo	http://camp.kg/?lang=en

18	Central Asian Countries Initiative for Land Management (CACILM)	http://www.thegef.org/gef/projects/CACILM
19	Central Asian Mountain Partnership (CAMP)	
20	The World Bank	www.worldbank.org
21	Economic Cooperation Organisation	http://www.ecosecretariat.org/
22	FAOSEC	http://www.fao.org/europe/sec/sec/en/
23	Organisation of Islamic Cooperation	http://www.oic-oci.org/oicv2/home/
24	Swiss Agency for Development and Cooperation	https://www.eda.admin.ch/deza/en/home.html
25	The Japan International Cooperation Agency (JICA)	http://www.jica.go.jp/english/index.html
26	the Black Sea Economic Cooperation (BSEC)	http://www.bsec-organization.org/
27	The Korea International Cooperation Agency (KOICA)	http://www.koica.go.kr/english/main.html
28	MountainPartnership	http://www.mountainpartnership.org
29	National Policy Dialogues (NPDs) on Integrated Water Resources Management (IWRM) and Water Supply and Sanitation (WSS)	http://www.unece.org/env/water/npd/countrydialogues.html
30	the Shanghai Cooperation Organisation	http://www.sectSCO.org/
31	The International Fund for Saving the Aral Sea (IFAS)	http://ec-ifas.waterunites-ca.org/
32	The Conference on Interaction and Confidence-Building Measures in Asia (CICA)	http://www.s-cica.org/
33	United Nations Convention on Combating Desertification	www.unccd.int

5.2. Recommendations towards National Operations

- It has been identified during the examination that only in Turkey the National Watershed Management Strategy was prepared. It is considered that it will be useful for the other countries to prepare their own strategy documents. Thus the legislation will be screened and the coordination will be ensured.
- As it was foreseen in the ongoing Water Law; similar boards as the **Watershed Water Management** can be generated.
- Programs indicating the “importance of integrated watershed management, mountains” can be performed by the state’s, the private sector’s or non-governmental organizations’s media organs.
- The drought and desertification issues are considered as extremely strategical issues and particularly the universities, the non-governmental organizations, think tanks institutions prepared many reports on it. Whereas drought is a result. Without watershed management, stocking and management accordingly of the water falling from mountains, it won’t be possible to overcome this shortage. Relevant public institutions can provide project support for the correct understanding of this aspect of this issue.

6. Conclusion

“Capacity Development Project for the Sustainable Management of Mountainous Watersheds in Central Asia and the Caucase”; is coordinated by the FAO Central Asia Sub-Regional Office in the framework of the financial and technical support of the General Directorate of Combating Desertification and Erosion of the Ministry of Forestry and Water Affairs of the Republic of Turkey and the Turkish Cooperation and Coordination Agency.

The report named: “The Role of Creating Awareness and of the Education Concerning the Watershed Rehabilitation and Management: Turkey Experience and Recommendations to Central Asia Countries” was prepared by İsmail Belen working in the Project as “**Awareness and Education Consultant**” in coordination with other consultants and the project management.

Even though there is a certain increase in the interest and the awareness concerning the drought, land degradation and desertification with the “mountainous watershed management” subjects, it is not yet enough. It is evaluated that both in national and international level there is a lack of coordination and interest and in this report are listed the faisabilities to remedy this deficiency.

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