



UNECE



Workshop

**“Capacity Building in Sharing Forest and
Market Information”**

24 – 28 October 2005, Prague and Křtiny, Czech Republic

Country statement

Turkey

**- Policies affecting forest land use and forest
products markets -**

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Turkey

Policies affecting forest land use and forest products markets in Turkey

1. Structure of ownership rights of forest land, game, harvesting capacities, wood processing and trade of forest products

Turkey is a cross country between Europe and Asia has about 80 million hectares of territory including water surfaces. Due to its geographical location, Turkey has unique biodiversity, historical/cultural richness, landscapes, climate and flora cover. According to the latest data (2001), the distribution of country's land as follow; agricultural land 27.7 million ha. (36.0 %), range and grazing land 21.7 million ha (28 %) and forest land 21.1 million ha. (27.1 %) and the rest is settlement areas and water resources. Unfortunately, %50 of the forested land is degraded, and incapable of wood production. The ownership of over 99%of the country's forests belongs to the state.

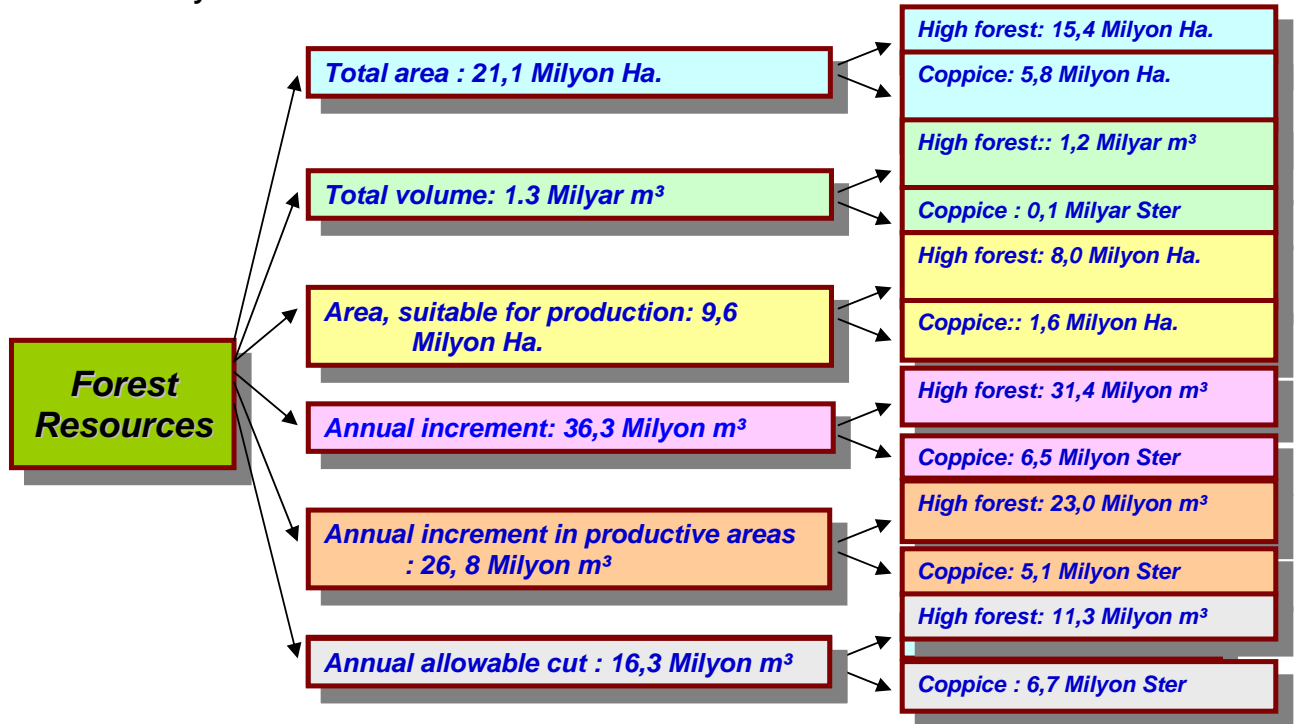
Timber production from the forests has traditionally been the first priority objective. Some 80 % of the forests' management are presently aiming at timber production as main objective. Annual increment of the forests of Turkey is 35.4 million m³ and annual allowable cut in the management plans is 16.3 million m³. While yearly timber production is some 13,5 million m³ round wood. At present 55-60 % of wood production is industrial wood and the rest is fuel wood. Although industrial wood consumption has increased by 25-30 % since 1970, it has been stable for last 10 years. Fuel wood consumption has had crucial decrease (due to rural migration and increase in using alternative material) Average timber consumption per capita has slightly been decreased in recent years (VIII. Five Year Development plan, Forestry Special Task Report)

Current timber production from the forests can not meet the national demand. Supply deficit is very clear in especially quality industrial wood. This gap is met by imports and poplar plantations. The amount of industrial wood import is some 1.5-2 million m³. The quantity of wood production from the private plantations particularly poplar woodlands is quite important that is over 3.5 million m³ annually.

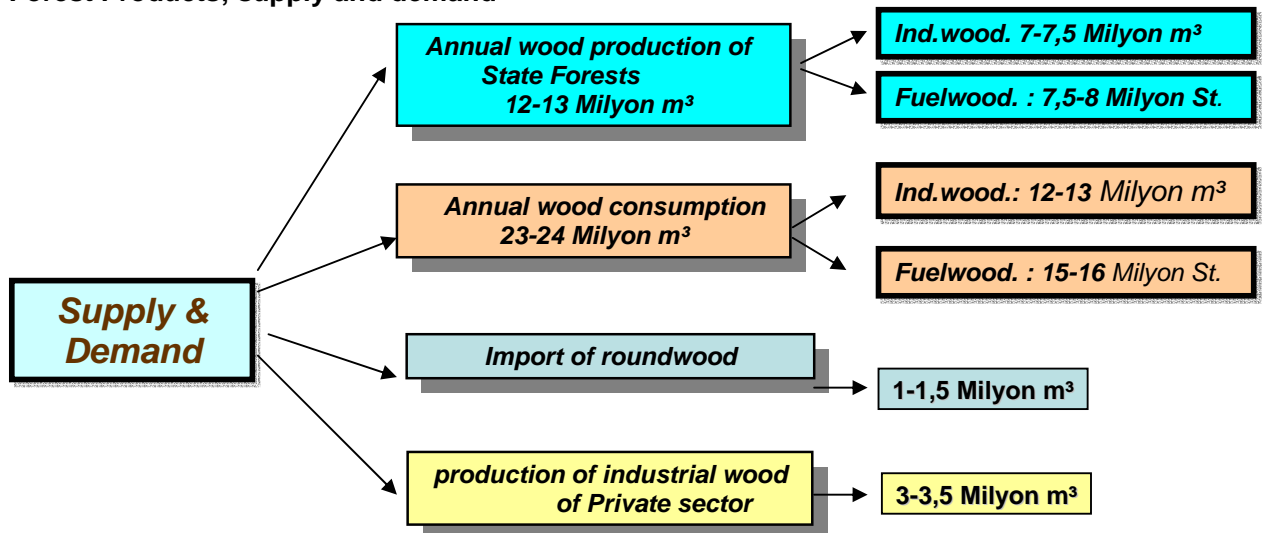
Wood harvesting from the state forests is mainly by forest villagers and their cooperatives. Employment created by forestry services in wood production activities (for local forest villagers) is important (13 million workers/day in 2000) and total payment to forest workers for this purpose covers some 25 % of the, total budget expenses of the State Forestry Service (General Directorate of Forests - OGM.)

Some 35 % of the industrial wood production is sold by specific selling arrangements, 53 % by public auction (to state and private sector organizations) 12% of yearly wood production is sold to the forest villagers in accordance with legal rights with lowered prices (subvention prices), Nearly half of the fuel wood production is also given to the forest village households with discounted prices. In addition, one-third (1/3) of the production is sold to the forest villagers and cooperatives through the prime costs. (Village market selling right), As a result, more than one-third (1/3) of the total wood production from the forests is given to forest villagers by subvention selling's.

State of Turkey's Forests



Forest Products; supply and demand



Forests in Turkey consist of the most reliable habitat areas for game and wildlife. Hunting in Turkey is an activity that has increasing importance. There are 2 million hunters in Turkey. Many hunting associations (1.153), deal with the hunting equipment trades, a few hunting safari firms, non-governmental organizations and villagers living in hunting areas are among the stake-holders of this sector. As state organization the Ministry of Forestry which has first degree responsibility to protect and improve the game and wildlife. 123 wildlife protection areas established that cover 1.8 million hectares, of area and important part of these areas is located in the forested lands. Data, information and institutional capacities regarding

game-wildlife resources are insufficient and the solidarity and cooperation among various stake-holders are very poor. However, Ministry of Environment and Forestry (MEF) has initiated serious studies towards overcoming these deficiencies in these areas in recent years. Turkey has very attractive game resources not only for local hunters but also for foreign hunters. If the real potentials of game resources and hunting are evaluated, an important income would be created for both country economy and local villagers. Annual income from game activities is roughly 2-3 million \$ recently.

2. Major trends in societal demand towards forest land use

In accordance with the demands expectations of the public, some important changes may occur in forest management strategies including *inter alia* type of management, quality of production, priorities and type of forest services and allocations etc. from time to time. These changes are depending on the demographic, economic, social cultural and ecological developments and changes in the community. The quantity and intensity of demands and expectations with regard to social and cultural services and conservative/environmental functions of forest seem to increase crucially in recent years, while demand for forests products mainly for timber have had crucial importance in the past periods. This trend is expected to last increasingly in the coming years, taking into consideration that vast number population will be living in urban areas for coming periods.

Competition among the demands and expectations, conflicts among the interest and beneficiary groups could occur frequently, since it is impossible to meet all demands and expectations of the community from the limited forest resources. Competition and conflicts between the rights and benefits at local and national levels seem to gain importance increasingly.

Biodiversity of the forests of Turkey lets rich Non-Timber Forest Products (NTFP) resources be in the forests which lay in different regions of the country. However, the importance and priority given to the management of forest resources management system, and the institutional capacity in this subject are insufficient. At present, in spite of this, various needs are met presently on local and national levels and important revenues are also gained from the exports of various NTFP of the forests (fodder crops, water, medicinal and aromatic plants, fruits, industrial raw materials, cork, ornamental plants, wildlife products etc). Export revenues from NTFP are estimated more than 100 million dollars annually. In the event of disciplining the export and improving the processing facilities instead of raw material export, there will be crucial increases in this value.

Among the NTFP's, fodder crops and water resources utilizations have special importance. Fodder crop utilization is done through grazing in pastures and grazing in forests (some 0,8 million ha) and using fodder as feed by collecting tree leaves.

However, grazing in the forests is very common in many regions. Importance given to fodder crop utilization function should be increased in the functional management of forest resources since the people are generally very poor. The functional management of forest resources contributes to food security directly, contributes to prevent migration, and products valuable ecological assets.

Basic components of the natural resources which produce sustainable water are forest ecosystems; alpine meadows and pastures. Afforestation and the degradation of range lands cause the ruination of the system of water resources and the decrease in the quantity and quality, Estimated annual economic usable water amount is 104.5 billion m³ in the country, 48.1 billion m³ of this amount is produced from forest areas.

Awareness and expectations of the society with regard to protective and environmental functions of forests (protection of soil resources, regulation of water resources, preventing the flood harms, carbon deposit, preventing air pollution and cleaning the air, etc) have had crucial increases especially in recent years. Some 80 % of the country lands which have mountainous and fragile topography and very sensitive to soil erosion. The amount of soil which is moved by erosion each year is estimated to be 500 million tones. Some 350 million tones of this amount is carried to the dams by rivers and creeks and the productivity and sustainability of the dams which contributes a lot to the energy, irrigation and agricultural sectors.

The economic value of the direct and indirect contributions of the forests through soil conservation, water regulating, floods control, security of infrastructure and settlement areas, diminishing the sedimentation in the dams, supplying drinking and using water, is quite higher than the timber production value of the forests. Annual value of the assets lost by erosion as a result of forest degradation in Europe is estimated to be 30.4 billion dollars (SPO, 2001). The contributions which are not measured by money and owned by preventing the life lost are also very crucial. It is known that the functions of forests like carbon deposit and reducing air pollution are important not only for national perspective but also globally. Increment in the carbon amount which merges to the atmosphere as a result of the degradation of the tropical forests is estimated to be 1.6 billion tones. Carbon amount which is absorbed by the forests of Turkey is estimated to be 424 million tones (Asan, 1997, Special Commission on Sector Report, State Planning Organisation, 2001).

During the preparation period of National Forestry Program, a questionnaire-like study was conducted in 2002. The basic purpose of the study was to explore the expectations of different stakeholders who directly or indirectly affected by the management of country's forests. The results in the following table show that intangible benefits and functional value of forest resources have significantly increased in terms of the global perspective of the society. However tangible benefits and goods of forests are still remained as primary importance by forest dependent local people and forest villagers.

Table 3. Expectations of Different Stakeholders of Community for Different Forestry Functions

FUNCTIONS		Forest		Forest Villagers		Forest Products		Non-govern mental		Urban communities		Local		Other state institutions		Hunters and Hunters unions		Forestry faculties And research directorates	
FOREST PRODUCTS	Timber	5	→	4		5		1	→	2		1		2		1	→	4	
	Non-wood forest products	2	↑	4		1	→	3	→	3		1		1		1	→	2	↑
	Fodder crops	1	↑	4		1		1		1		1		2		1	→	2	
	Water	1	↑	4		1	→	2	→	4		4		3		2		1	↑
SOCIAL AND CULTURAL SERVICES	Game	2	↑	2	→	2	→	2	→	2	→	2	→	1	→	5	→	1	↑
	Game Wild life	2	↑	2	→	2	→	3	↑	2	→	3	→	2	↑	4	↑	2	↑
	Recreation	3	↑	2	→	3	→	2	→	4	↑	2	↑	2	↑	2	→	2	↑
	Landscape	2	↑	3	↑	3	→	3	↑	3	↑	3	↑	2	↑	3	↑	2	↑
CONSERVATIVE ENVIRONMENTAL FUNCTIONS	Soil Conservation	4		3		1		4		2		2		2	↑	2	→	3	↑
	Water conservation	2		4		1	→	4		3		3		2		3	→	2	↑
	Climate effects (carbon deposit, air cleaning)	2		2	→	1	→	4		4		3		2		2	→	2	↑
	Biodiversity conservation	3		3	↑	1	→	4		3		3		2		2	→	2	→
	Preventing Natural disasters	2		4	↑	1	→	4	↑	2		2		2		2	↑	2	↑

SOCIO-ECONOMIC SERVICES	Contribution to diminish rural poverty in forest villages	4	→	5		2		2	↑	1		2		2		1	→	2	
									→		↑		↑		↓		↓		

Current interest level: 1. Very little; 2.little 3.medium 4.High 5.very high **CHANGING TREND:** Stable : Increment Rapid increment Decrement Rapid decrement

REFERENCES : Turkey's National Forest Program 2003-2004.

3. Contribution of forest land use to sustainable development

Presently, there is a significant shortage of research and evaluation studies with regard to calculation/ estimation of the present and potential economic values of multiple benefits of forests in Turkey. Although important studies carried out on timber and non-wood forest products, social and cultural services, protective, and environmental functions, but these are not enough to estimate the exact value of forests. Contribution value of the forests to Gross National Products (GNP) has been estimated to be around 0,5 % in an appraisal study carried out by state Statistic Institute (DİE) in 1980. The rate of forestry sector in the national economy has been determined as 1.76 % in the appraisal study which also takes into consideration the non-recorded timber production and supranational selling's carried out by OGM in 1984.

Deficiencies in the value estimations of multiple benefits of the forest resources are one of the reasons why the importance given and allocated resources to the forestry sector is insufficient. The results of the two evaluation studies carried out according to the current limited data's recently are given in the tables below.

Table: Minimum values of non-wood benefits of forests

Benefit type	Benefit value (US \$)
1. Non-wood forest products	327 000 000
2. Wildlife	36 000 000
3. Recreation	2 000 000
4. Watershed conservation	131 000 000
5. non-recorded timber utilization	40 000 000
6. carbon deposit	463 000 000
7. genetic resources	89 000 000
8. Special values regarding protected areas (Research, training)	6 500 000
TOTAL	1 094 500 000

Source: *Forestry Sector Review, Global Environment Overlapping Program Report, 1998*

Table: Estimation on economic value contribution of the forests of Turkey

Value Category		Benefit type	Benefit value	
			US \$	%
Using Value	Direct using	Timber production	449 815 000	31.16
		Non-wood forest products	86 044 495	5.96
		Grazing, fodder utilization	225 000 000	15.59
		Hunting	17 219 854	1.19
		Recreation	2 071 880	0.14
	Indirect using value	Carbon deposit	801 000 000	55.48
	Alternative value	Medical utilization	112 500 000	7.79
Non-using Value	Life value	Conservation of biodiversity	1 380 000	0.10
	Heritage value			
TOTAL ECONOMIC VALUE			1 692 959 349	100.00

Source: *First National Forestry Congress, Turkish Forestry Association, 2001 M.F. Türker, M. Pak, A. Öztürk*

Water production values are not put in the Tables as a preference by the researchers. If water production values are also added, crucial increase will be in the using and total economic values of the forests.

Different values in the same subject are seen in tables above. The reason for this different amount is the using different methods at these two studies.

These conclusions show that the benefits from the forests are far more than the previous estimations and the minimum values of non-wood products, service and functions of the forests are even more than twofold of the value of timber utilization.

4. Major policy issues with regard to further development of forest resource, forestry, wood processing and trade of forest products

Research studies on forestry have been carried out by the research directorates of the Ministry of Forest, forest faculties, other universities and non-governmental organizations. There are 11 Research institutions under the Ministry of Forestry at present, 8 of them are regional (Central Anatolia, Eastern Black sea, Western Black sea Aegean, Western Mediterranean, Eastern Mediterranean, Eastern Anatolia, south Eastern Anatolia Forestry Research Directorates), while 3 are Subject Research Directorates which serve all over the country (Poplar and Fast growing Forest Trees Research Directorate, Forest soil and Ecology Research Directorate and Research Institute for Forest Trees and Seeds Improvement). These forestry research activities have been coordinated by Research and Development Department of Ministry of Environment and Forestry, after emerging two Ministries. Master Plan For Forestry Research which ensures the policy, strategy, priority and principles for forestry research studies was prepared in 2001, Research studies should be strengthened and improved as mentioned below; (i) Adaptation to the changing roles and needs of forestry (ii) Coordination, and cooperation among various research institutions and activities (iii) dialog among researchers, implementation units and other stakeholders, dissemination and utilization of research results to the implementers and getting benefits out of these studies, and (iv) strengthening the capacities of research institutions. These principles were addressed in aforesaid master plan.

Training, public relations and awareness activities of the Ministry of Forestry, have been executed by the departments at the Ministry and OGM central units, by the units at division director level in other general Directorates.

5. Law enforcement and illegal activities(hunting, wood cuttings and exports

Unclear situation of the ownership structures of country's forested areas is still an important Cadastre and boundary marking activities in the one-fourth (1/4) of the forest areas have not been finalized yet. Official registration activities haven't been carried out yet in the big part of the areas where cadastral activities were completed. This situation has been the important reason for the present crucial boundary and ownership conflicts between local people and forest organization.

Among the biotic and a biotic harm agents, the most important one's are forest fires, overgrazing, illegal fuel wood cut, irregular and degraded utilizations of non-wood forest resources, clearance-settlement, insect, fungi and other diseases. Among these damages, fires, have the most important effects, and create serious threats and harms to the forests especially in the south and west regions. At present, average 2.000 forest fires occur each year and cause some 10.000 ha. of degradation in the forests.

An important number of present 7.523 million goats, 29.435 million sheep's and 11.033 million cattle's in Turkish villages, have been grazed in range lands in or in the vicinity of forests and in forest areas in certain times of the year. (1998 State Institute of Statistics). As a result of ongoing migration from forest villages, important decreases on grazing pressure and damages in forest areas have been seen in recent years, But, grazing damages in many forest areas and especially in regeneration sites are still going on.

Although, illegal timber utilization from the forests has been decreasing crucially in recent years as a result of migration and usage of alternative energy resources, it still has important degradation. In spite of not having accurate data on the present quantity of illegal timber utilization which was estimated to be some 10 million m³ in the past is expected to be some 5.5 million m³. While above forest clearance problem is decreasing due to migration in rural areas, it has been very serious problem and threat around cities and in coastal places.

6. Assistance provided by international organizations, current needs and future expectations

The Ministry of Environment and Forestry, former Ministry of Forestry, has carried out a lot of projects with international organizations such as FAO, World Bank, IFAD, GTZ, JICA etc. In some projects, assistance provided were as technical (expert, training e.g.), some were financial and technology transfer. For future expectations, some field of forestry, financial and technical assistance are needed for capacity building, technology transfer, training, expert exchange.

7-8) Governmental institutions responsible for forest management	9) National, regional and local governmental institutions for forest management
Under the Ministry of Environment and Forestry -General Directorate of Forestry -General Directorate of Aforestration and Erosion Control -General Directorate of Nature protection and National Parks - General Directorate of Forest-Village Relations	Ministry of Environment and Forestry National *General Directorate of Aforestration and Erosion Control *General Directorate of Nature protection and National Parks *General Directorate of Forest-Village Relations * General Directorate of Forestry -Regional and Local * Forest Regional Directorates (27) * Forest District Directorates (210) * Forest Ranger Offices (1310) *Province Environment and Forestry Directorate (81)

10. The list the of the major stakeholders related to forestry, including NGO's, research and environmental organizations, educational institutions

In parallel to rapid urbanization, training, awareness and improvement of income level, regular and important increases in the demand and expectations of the community regarding social and cultural services of forests like recreation, tourism, picnic, hunting, fisheries, training and research and in the importance and priorities of these functions in forest resources utilization have been seen, in recent years.

-Forest villagers are the key stakeholders highly affected by the management of forests in Turkey. These villages with the population of 7.5 million living in 20430 settlements (each less than 2000 population) therefore have been given very special and important privileges by the forest law 6831 since 1946.

-Forest villagers have also established their "Forest Village Cooperatives" that are also significantly supported by forestry sector and related legislation.

-universities and other research institutions (9 forestry faculty in different regions, other universities, The Foundation of Scientific and Technical Research (TUBITAK)

-NGO's

*Turkish Association for the Conservation of Nature (TTKD)

*the Research Association of Rural Environment and Forestry

- *Nature Life Protection Foundation-Turkey (WWF-Turkey)
- *Environmental Foundation of Turkey (TÇV)
- *The Turkish Foundation for Combatting Soil Erosion, for Reforestration and the Protection of Natural Habitats. (TEMA)
- * Foundation of Agricultural Development (TAKVA)
- *Central Union of Turkish Forestry Cooperatives (ORKOOP)
- *Chamber of Forest Engineers (TMMOB-OMO)
- *The Foresters' Association of Turkey (TOD)

11. Major changes expected with regard to Forest Policy

Turkey prepared its National Forestry Strategy and National Forestry Program and put them into practice. Basic policy of the new program is multi-functional management (multiple-use) of the forest resources, by ensuring the conservation and improvement of the extent, integrity, biological diversity, health, regeneration capacity and productivity of the forests, participatory planning and implementation of the forestry activities by the forestry organization, local communities (including women and youth) and other interest groups (e.g. NGO's, private sector, local administrations, universities, other government agencies, etc.), integration, at the watershed-level, between different forestry activities, during planning and implementation stages.

12. Turkey's participating and contributing international network in the field of forest policy

Turkey has been a member and party to a lot of international organizations and international conventions. Turkey has shared data related to forestry and environment with international organizations, agencies such as FAO, European Environment Agency etc. and very prone to share, participate and contribute to international network in the field of forestry and environment. There would not be any obstacle to provide information of forest policy.

List of governmental institutions responsible for law enforcement on forests

Policy area	National ministries	objective	Main policy instrument used		
			Legal /regulatory	Financial /economic	informational
Production of wood	MEF	to meet domestic need of wood	x	x	x
Short term plantations	MEF	to widen forested area to reduce pressure on natural forests	x		x
Health and vitality of forests	MEF	to protect forest against harmful effects	x	x	x
NTFP	MEF	to protect the diversity and utilize the resource in sustainable way	x		x
Hunting	MEF	to promote hunting tourism and increase the income of local people	x		
Water cycles	MEF, Ministry of State	to regulate the water regime	x	x	x
Air Cycles	MEF	to prevent air pollution and keep pollutants	x		x
Carbon issues	MEF	to reduce carbon emissions and storage it as much as possible			x
Biodiversity	MEF	to protect the biodiversity of forests	x	x	x
Erosion prevention	MEF	to protect soil, agricultural lands, settlements etc from erosion and floods	x	x	x
Tourism	MEF, MCT	to increase tourism potential of forest avoiding possible risks	x	x	x
Public awareness and participation	MEF, MNE	to get more public interest on forests		x	x
Research, training and education	MEF	to search related the forestry, and build capacity.	x	x	x
Cultural and spiritual values	MEF, MCT	to explore, introduce and valorize the cultural and spiritual values of forests	x		x
National parks/conservation	MEF	to increase national parks and protected areas and to manage them sustainable	x	x	x

Governmental instructions (Ministries) which have responsibilities for the administration of state owned forests

Ministry/ministries	Forests and other wooded land (ha)	Management is carried out by (%)		
		state financed management	Outsourced to commercial enterprises	total
Ministry of Forestry and Environment	21.1 million ha	100	-	100
Ministry of Defense	-			
Ministry of Agriculture	-			
Ministry of Culture and Tourism	-			
Ministry of	-			

Governmental institutions on major governing levels

	Institutions responsible for law enforcement			Institutions responsible for state forest management		
	Name of institution	Number of entities	Average forest area /entity (ha)	Name of institution	Number of entities	Average forest area/entity (ha)
National level (1-Ministry)	Ministry of Environment and forestry	1	21.1 million ha.	Ministry of Environment and Forestry	1	21.1 million ha.
Regional-2 (second highest)	Forest Regional Directorates	27		Forest Regional Directorates	27	
Regional-3 (third highest)	Provincial Environment and Forestry Directorate	81		Province Environment and Forestry Directorate	81	
Regional-4 (fourth highest)	Forest District Directorates	210		Forest District Directorates	210	
Regional-5 (fifth highest)	Forest Ranger Offices	1310		Forest Ranger Offices	1310	

Major stakeholders related to forestry (excluding government institutions)

Type of organization	Name of organization	Objective	URL/Address
State Forest Enterprises (see the table above)			
Private owners and industry associations	Ambalaj sanayicileri derneđi		
	Türkiye orman ürünleri ithalatçıları ve sanayicileri derneđi		
	Yonga levha sanayicileri derneđi		
	Selüloz ve kağıt sanayii vakfı		
Environmental NGOs	Turkish Association for the Conservation of Nature (TTKD)	Promotion of public awareness on the conservation of wildlife and other natural resources by training, publications, campaigns etc.	www.ttkder.org.tr
	Foundation of Agricultural Development (TAKVA)	-Raising consciousness for the environment in rural communities and developing their capacity to protect and upgrade the natural environment through agriculture, forestry, rangelands, fishery-	In preparation

	the Turkish Foundation for Combatting Soil Erosion, for Reforestration and the Protection of Natural Habitats.(TEMA)	Combatting erosion, reforestration, environment and public awareness, project implementation on these fields and countrywide environmentally related training.	www.tema.org.tr
	Environment Foundation of Turkey	Promotion of awareness on environmental issues by campaign, conferences, seminars etc.	www.cevre.org/
Research/Education	Faculty of Forestry (9, different regions, İstanbul, Trabzon, Kastamonu, Düzce, Artvin, Çankırı, Isparta, Maraş, Bartın)	Research on forestry and environmental issues	www.orman.istanbul.edu.tr www.orman.ktu.edu.tr www.ankara.edu.tr/faculties/forestry www.kof.gazi.edu.tr www.kafkas.edu.tr/aof/ www.orman.sdu.edu.tr www.dof.ibu.edu.tr
Others	The chamber of Forest Engineers (OMO)		www.ormuh.org.tr
	Association of Turkish Foresters (TOD)		www.tod-tr.org