**"Restoration and adaptation of the mountain forests of Central and North-East Asia"**

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**TURKEY’S EXPERIENCES ON MANAGEMENT OF MOUNTAIN FORESTS**

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Mountains occupy nearly 24% of the global land surface and directly support over 12% of the world’s population. One-fifth of humankind derives a vast array of ecosystem goods and services from the mountains, including freshwater, energy, timber, a wide variety of bioresources, and opportunities for recreation and spiritual renewal.

Turkey, with land area of 78 million hectares, is located in the Alpine- Himalayan orogenic belt is the mountainous and highland. The mean elevation is about 1100 m. The lands between 0 m and 500 m cover an area of 18 % of total land of Turkey roughly. The rest is more than 500 meter.

Forests are generally located on mountainous areas and they are usually natural and semi-natural with high biodiversity value. The forest area occupies 22 million ha (approximately 27% of the land) of the total land area.

The predominant species are *Pinus brutia, Pinus nigra, Pinus silvestris, Abies spp. ( A. cilicica, A. nordmannia, A. equi-trojani are unique ), Picea orientalis, Cedrus libani, Juniperus spp., Pinus, pinea, Cupressus sempervirens, Pinus halepensis, Fagus orientalis, Quercus spp., Alnus spp., Castanea sativa, Carpinus betulus.*

Nearly all the forest land base belongs to the state. Only 1% is in private ownership. The state forests are managed by the Ministry of Forestry and Water Affairs with its three following General Directorates;

**General Directorate of Combating Desertification and Erosion (GDCDE)** is central institution established with the aim of “protection of soil, improvement of natural resources, combating with desertification and erosion, setting politics and strategies related with activities of avalanche and flood control, providing cooperation and coordination among related agents and agencies”

**General Directorate of Nature Conservation and National Parks GDNCNP** with its field branches is mainly responsible in managing national parks and other protected areas as Nature Parks, Nature Protection Areas, Wild Life Management Areas, and Wetlands etc. Turkey has 40 National Parks that cover approximately 1 million hectare area and they are mainly mountain forests. 1.2 million hectare area with more than 500 meter altitude is designated for “wildlife improvement”.

**General Directorate of Forestry (GDF)** is the agency in charge of all forest management in Turkey with the main focus on timber production and conservation management in a sustainable way within the frame of authorizations granted by the Constitution and Laws for 173 years.

Given the diverse forest ecosystems and social-cultural structure of the country, almost all forest resources have been planned and managed under government jurisdictions over approximately 88 years.. Management plans for all forests were completed in 1963-1972 period.

**Forest management planning** can be said in terms that maintaining balance between economic, ecological and socio-cultural functions of the forests while meeting society's demand for forest products and services. During the formulation of plan, depending on the conditions (climate, forest type, human factors), management plan objectives, general forest functions related to the forest resources management are identified through **participatory meetings**. The main silvicultural activities are natural regeneration, timber production, spacing, thinning and pruning and soil conservation activities.

Turkey also took significant steps in order to increase the forest asset through the rehabilitation, afforestation and erosion control activities. More than 65% of Turkey’s is in arid land. Among global threats, drought, land degradation and desertification (DLDD) as well as erosion has been continued effecting wellbeing and livelihood local people and communities at upper lands. The remarkable taken step is realization of the “National Program on Afforestation and Erosion Control Mobilization Action Plan “that covers the years of 2008-2012 and includes afforestation and erosion control works, afforestation, combating with erosion and rehabilitation of forests works. At the end, around 2,5 million hectares of land realized in within a five years as well as contributed rural income through the employment of them for six months in each year between 2008-2012 and carbon capturing of Turkey’s forests by means of mitigating the climate change.

In addition to the aforementioned plan, specific action plans covering period of 2013-2017 for the erosion control, flood control and dam catchments green belt has been put into force in order to increase forest asset and soil conservation.

It is necessary to say that before the initiation of the any forestry activities in Turkey, having consultation and participatory meetings with respective stakeholders are the key process of the achievements. Main purpose of this process is to motivate to talk about their livelihoods and to assist them to express their personnel ideas, expectations and vision of the future forest management. By doing so, it is expected that in collaboration with stakeholders, especially local population and local public bodies should adopt a more participatory, multifunctional and integrated approach in managing and using natural resources, particularly forest resources.

At present, ecosystem-based functional planning more reveals in Turkey as development of the international forestry policies have had an impact on national forestry policies and planning approaches. Besides, integrated watershed basin management is another important plan used in Turkey as it is more comprehensive approach and longer-term investment program in watershed rehabilitation and water management and ensure that such investments meet key objectives, including livelihood support and income generation, conservation and sustainability of natural resources, reduced vulnerability to climate change.