

ASSESSMENT OF FOREST ROAD NETWORK PLANNING AND CONSTRUCTION PROGRESS IN TURKEY

Murat Demir

Istanbul University, Faculty of Forestry, Department of Forest Construction and Transportation
34473 Bahcekoy / Sariyer / Istanbul / Turkey
e-mail: mdemir@istanbul.edu.tr

Keywords: Forest roads, Forest transportation, Road spacing, Road density, Road construction, Turkey

Abstract: *In this study are proposed impacts, management and functional planning criterion of forest road network system in rural and urban landscapes of Turkey. Road spacing and road density have been inspected concerning forest roads in production, reforestation, national parks and protection forests of rural and urban landscapes of Turkey. The forest road network was the most expensive human activity in the forests both in terms of economics and environmental effects. Public opinion about the environment has increased in recent years. Sustainable land use planning creates a great challenge for rural and urban road network planning. Further improvements of the network are necessary, to provide for people's needs in the near future. Harmful effects of road network conflict with the principles of sustainability. When making use of the forest ecosystem for various purposes, care must be taken not to spoil the forest structure. To achieve this, forests must be used according to forestry techniques. So, there is a need for a new planning approach, serving the interests of both accessibility and sustainable environment. In rural landscapes, forest road planning standards (slope, width, pavement, drainage etc.) are different in production, forestation, national parks and protection forests. Although this is well known, forest roads have in fact been planned primarily to satisfy the requirements of forest harvesting and timber transportation. Forest roads have been planned and constructed according to road density (m/ha) and yield/forest area (m³/ha) criteria to meet the needs of Turkish forestry. However, forest road density should be determined according to all aspects of forestry operations. All the research done in Turkey has stated that forest road density may be 20 m/ha. Total identified forest road needs in Turkey are 201810 km, of which 143251 km, or 70.98%, had been constructed by the end of 2006. 70.98% of forest roads, 69.80% of firebreaks, 52.24% of major repairs, 51.67% of paving, 58.28% of bridges, and 64.82% of forest road structures which were planned to be constructed by the end of 2006 had in fact been completed. It is intended that the construction of all planned forest roads and the completion of all associated structures will be achieved within 20 years. As a result, today, a substantial part of the forests of Turkey have been provided with forest roads constructed on the basis of an overall plan, and transportation by truck on such roads has often been the one and only choice. With a view to be capable of conducting modern forestry activities, our country's forests should be provided with a systematic road network by completing as soon as possible the construction of the remaining portion of such roads.*