

## Trends on Woody Biomass Utilization and Timber Procurement in Turkish Forestry

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### **Abstract:**

*In Turkish forestry, modern utilization of forest biomass for energy resource has a slowly progression on account of additional various factors. In this study, it is considered the problems are effective on the biomass utilization and how the timber harvesting are influential for procurement of forest biomass such as fibre-chip board wood and logging residues. In this concept, it was exposed the forest biomass potential of Turkey, introduced wood production rate, examined the demands on wood products, and reviewed the utilization of logging residues. As methodologically, the documentation analysis method was used in the study through the inventory data source, financial balance sheet, statistical data belonging to Turkish forestry, and field observation on woody biomass harvesting. As result, it was determined that the growing stock in all forestland on 21,5 million ha, was 1.428,5 million m<sup>3</sup>. Total biomass was 1.633 million tons in only the productive forest and 160,5 tons per hectare. The annual biomass potential was 32 million tons and the utilizable bio-energy potential was 17,2 million tons, while a total biomass requirement was estimated over 7,5 Mtoe except of demand on modern bioenergy sector. However, in the last three decade in Turkish forestry, the total industrial round wood production amount increased approximately 99 percent; fiber-chip board was 29 times. Surprisingly, the fuelwood decreased in 69 percent. The situation indicated that fibre-chip board industry is the competitor sector for bioenergy and it seems to become an obstacle in front of modern woody biomass utilization for energy.*

**Keywords:** woody biomass, biomass utilization, logging residues, wood supply, timber procurement