ABSTRACT

IMAN SANTOSO. Analysis of Supply and Demand of Roundwood: Raw Material Policy Arrangement for Primary Wood Industries. (RINA OKTAVIANI as Chairman, ARIEF DARYANTO and DUDUNG DARUSMAN as Member of Advisory Committee).

The role of forestry sector in national economies show a declining trend. This decrease was caused by various factors. One of them is the occurrence of an imbalance between supply and demand for logs in which there is excess demand for primary wood processing industry. Many efforts have been made such as the arrangement of primary wood processing industry and implementation of a log export ban, but has not given encouraging results yet. This research is applying a simultaneous equations model of the Indonesian timber market system that are more detailed than previous studies. On the supply side, the behavioral model of timber supply from various sources (natural forests, plantation forests and community forests) is constructed. Meanwhile, on the demand side, this research constructed demand behavior of sawntimber, plywood, and pulp industries. The model developed is intended to answer questions relating to (1) the factors that influence production of roundwood production and its derivatives, (2) forms of government policies that ensure the sustainability of the forest industry (upstream-downstream), and (3) policies that can reduce the gap of supply and demand of logs. 2SLS method was used for model parameter estimation.

The results show that the decision to determine the extent of timber harvesting area in natural forest and plantation forest are influenced by previous cutting experience in addition to the demand by the industrial roundwood, roundwood prices, taxes and levies and wage rates. Roundwood production from natural and plantation forests are influenced by land productivity, while for community forest production is more affected by extensive logging. Level of demand by the industry is affected by the production of primary wood processing industry, the world price of processed wood products, and the price of logs. Efforts to accelerate the decline in the gap can be done through increased productivity of natural forests through the implementation of intensive silviculture. Other efforts that could be implemented are acceleration of development of community’s plantation forests (HTR) in production forests are not burdened with rights, implementation of compensation fee for the people who developing HTR as much as their opportunity cost if they reduce cash crops in HTR area simplify the procedure so that the community can meet the required conditions, granting access to financing credit, encouraging participants to plant perennials HTR; application of multi-system silviculture. Increased production of logs per unit area as described above is expected to increase the contribution of the forestry sector, through increased taxes and charges up to certain limits. Application of the use of efficient wood processing technology, especially in the application of new industrial units, to offset rising production costs, for example increase the wage rate.

Keywords: supply, demand, gap, roundwood, simultaneous equation, silviculture