

## A Study on the Characteristics of Forestry Development in Java, Indonesia

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In Java, more than 65% of Indonesian population inhabit, and forest covers 24% of the land and it occupies an important position to supply forest products and conserve environment. This research purpose is to examine the development trend, structure and existing problems of state and private forest based on case studies, and further clarify the characteristics of forestry development in Java.

After Dutch East India Company exploited most of the valuable teak (*Tectona grandis*) timber, Dutch colonial government set up Forestry Service to monopolize the management of teak forest. It conducted the large-scale teak timber production and began to establish teak plantation forest after introducing the management system of German Forest Rotation. The government enacted the Agrarian Law and established the state forest. It practiced the large scale plantation forest mainly consisting of teak by introducing *tumpangsari* (agroforestry) and strongly promoted the plantation forestry development.

After Independence, Indonesian government took over the state forest. The government enacted the Basic Agrarian Law and Basic Forestry Law to ensure the foundation of the ownership and management institution on state and private forest. Production forest (1.92 million ha) mainly consisting of teak plantation



Iin Ichwandi with the President University of the Ryukyus (Prof. Moshin Morita) and my Japanese co-advisor (Prof. Takeo Shinohara)

(cutting rotation 50-80 years) and protection forest (0.65 million ha) are included in the state forest (3.01 million ha). Production and protection forests are managed based on Sustained Yield Regulation Plan, etc. by State Forest Corporation (Perum Perhutani, PP) under Ministry of Forestry. In order to improve the living condition of the poor village people, PP initiated the agroforestry and social forestry programs, and planted teak, etc., but in particular, the latter was not successful. Plantation forest was destructed for illegal logging and land encroachment by the poor people. Such



Field visit to mangrove forest in Okinawa Island

forest destruction worsened more and more during the recent economic crisis. In order to earn profits, PP conducted an unplanned timber production without enough reforestation measures in cut-over areas, which resulted in dramatic decrease of teak forest and a large area of denuded forest land. Indigenous (Baduy) people living in the state forest reserve have

conducted a sustainable forest management based on their traditional customary law to harmonize man and nature, and they have used various forest products. However, such a sustainable management faces difficulty for increasing need of cash income and shortening swidden fallow period with population increase.

Private forest contributes greatly to supplement timber production in Java. In order to promote plantation forestry in private forest, the government provided the village people with the subsidies such as seedlings and the credit. Credit subsidy was not successful because the prerequisites for it were too heavy. Thus, many farmers practiced mainly agroforestry by themselves in their own small private land and planted albizia (*Paraserianthes falcataria*, cutting age 4-7 years), teak (cutting age 15-30 years) and mahogany (*Swietenia macrophylla*), etc. They harvested trees to sell mainly by selective cutting system. More than 0.4 million ha of private forest managed by 2 million farm households contributes to secure the farmers' income, etc.

To achieve sustainable development of forest plantation in state forest, it is necessary to conduct a collaborative management with local people and so on. It is important to expand the traditional products market, etc. in order to keep a sustainable forest use by indigenous people. Moreover, credit subsidies and farmers' cooperatives, etc. are also necessary to improve the private forest management and more develop plantation forestry.



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