

Sustaining South Kalimantan

An ITTO project has produced a long-term plan for the province's wood industry

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Forest giant: Gmelina plantation in South Kalimantan. Photo: A. Jauhari

The period 1980–2000 was the heyday of the logging industry in the Indonesian province of South Kalimantan, with annual wood production peaking at 1.9 million m³ in 1998. During the period, the wood industry served economic purposes such as increasing foreign trade through exports, providing employment and adding value to production. However, little consideration was given to achieving a harvest that matched or was lower than forest growth, which is a starting point for sustainable forest management.

The primary wood industry began in South Kalimantan in the early 1980s, with the development of industries producing sawnwood, plywood, chipboard and particleboard, based on supply from natural forests. A secondary processed industry subsector developed from the mid-1980s, producing moldings, woodwork and pulp and paper. By the end of the 1990s, the wood-based sector was the foremost non-oil-and-gas export producer in South Kalimantan. Since 2000, however, the wood industry has experienced a significant decline, and many companies are now heavily in debt. The causes of the decline include a lack of raw materials (logs) from natural forests; the failure of the plantation subsector to supply the raw materials for the chipboard and woodwork subsectors; and the inefficiency of primary wood processing. Some companies were suspected of using timber from illegal sources, both inside South Kalimantan and from other provinces such as Central Kalimantan, East Kalimantan and West Kalimantan. Such activities threaten not only the sustainability of the forests but also the future of the wood industry.

Today, nearly 75%—or about 1.8 million m³—of the raw materials for the existing wood industry in South Kalimantan is supplied by other provinces, especially

Central Kalimantan and East Kalimantan. With local forest resources now depleted, the provincial government recognizes that it needs to take steps to ensure the sustainability of the wood industry, and that a long-term development plan is required. In 2006, therefore, ITTO, the Government of Indonesia (through the Ministry of Forestry) and the South Kalimantan Provincial Forestry Office developed a project to formulate a Long-term Plan for the Sustainable Development of the Wood-based Industry in South Kalimantan Province.¹ This article describes the Long-term Plan and the process of its formulation, which involved policy-makers, people dealing with the wood industry, and all other relevant parties.

Project objectives

The objectives of the project for the development of the Long-term Plan were to:

- determine the raw-material resources, both within the province and in other provinces, that would be the most appropriate and efficient sources of supply for wood-based industry development in South Kalimantan;
- identify and determine the structure of the wood industry to ensure its competitiveness and maximize its contribution to the local and national economies;
- identify and determine the financial performance of the wood industry under high sustainable growth, sustainable growth, and low sustainable growth scenarios;
- identify processed wood products with high demand in the market, both domestic and international;
- describe the current condition of the wood industry, including its performance and industry mapping, and future development planning;
- develop actions to be undertaken to organize the wood-processing sector and improve the overall condition of the wood industry; and
- provide an accurate, science-based reference for the formulation of medium-term and long-term regional plans for South Kalimantan Province.

This set of objectives was expanded from the objectives described in the ITTO project document, particularly with regard to raw-material resources and markets for processed wood products, since both are essential for a sustainable wood industry. The formulation of the Long-term Plan took into account the historical role of the wood industry and its current condition, as well as the potential long-term wood supply and market potential. The Long-term Plan identified four phases of industry development: a consolidation phase (2010–2020), a revitalization phase (2021–2030), a growth phase (2031–2040) and a stabilization phase (2040+).

¹ ITTO project PD 385/06 Rev.2 (F).

Methodology

Data collection

Data for the Long-term Plan were collected through:

- *a desk study*—collating data and information available related to wood-industry development and development planning in Indonesia in the last 20 years;
- *surveys*—the collection of primary and secondary data in the field. Primary data were obtained directly from business actors and communities at targeted locations, and secondary data were obtained from service offices and agencies at targeted locations;
- *web-searching*—an internet search was conducted to collect data and information from relevant websites;
- *brainstorming*—a broad-based expert team was formed to provide an organizational interface and to share information and inputs from involved parties on the core industry competency study;
- *expert acquisition*—in-depth interviews were conducted with experts on all aspects of the core industry competency study at selected sites; and
- *focus-group discussions*—intensive discussions were conducted with local stakeholders concerning core industry competency development at selected sites.

Data analysis

Data obtained from the wood-industry survey were processed into spatial and non-spatial databases, which were then used to assess and show the current condition of the wood industry using the Pivot Table System. Data on primary wood processors (both small and large), secondary wood processors, wood traders, the wood resource and a general profile of the wood industry can be obtained from the databases.

The data can be used to predict wood-supply potential, by subsector, especially for small and medium-sized enterprises (SMEs), in sustainable management units in production forest (KPHPs). Thus, the data can be used to plan the ideal number of SMEs in every KPHP. This is useful for planning and for monitoring the balance of wood supply and demand.

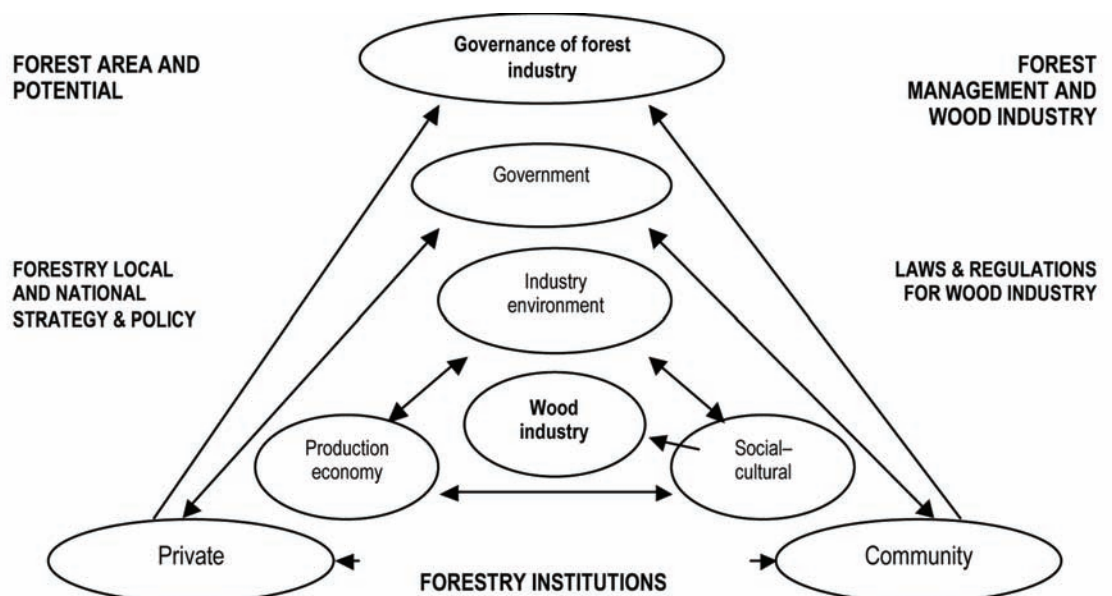
The competency of the core local wood industry was assessed based on scores made against a range of criteria, in eight broad groups (Table 1). A SWOT analysis (strengths, weaknesses, opportunities and threats) was conducted to assist the development of an operational strategy for the primary wood industry. The SWOT analysis was based on information from stakeholders collected through focus group discussions and in-depth interviews, and on information gathered at various forums and meetings and from the literature.

The strategy

The strategy underpinning the Long-term Plan has three elements:

- the implementation of sustainable forest management through the development of forest management units (FMUs), which would also function as a zoning system for controlling and balancing wood supply and demand;
- mapping the wood sector and determining the best mix of products in the province to revitalize and develop selected industries in the future while considering the development of a pro-poor and pro-job wood sector; and
- market and investment in the wood industry.

An additional element required for the Long-term Plan to succeed is good governance in the forest sector, as shown schematically below in relation to its links to the wood supply chain and various components of the forest sector.



Objectives for the wood industry

Based on a vision of sustainable timber industry development in South Kalimantan, the objectives of the Long-term Plan are to:

- develop the wood industry that is 'pro jobs' through KPHP-based clustering to encourage SMEs;
- develop the upstream forest sector (i.e. forest resource units) through the people's forests (HRs), plantation forests (HTRs), and community involvement in forest development activities, as well as through the development of industrial timber plantations (HTIs);
- develop the upstream forest sector (natural forest resource unit) through the application of 'silin', an intensive silvicultural approach;
- encourage the rejuvenation, modification and replacement of old equipment to be able to process small-sized wood efficiently;
- develop a future fibre-and-energy-based wood industry;
- focus development on highly competitive wood products;
- increase the share of the domestic market and maintain the traditional market, followed later by international market penetration;
- encourage wood-industry products toward certified green products that are acclaimed internationally; and
- create a conducive business climate by simplifying regulations and bureaucracy and cutting the cost of doing business.

These objectives have been further elaborated in operational objectives applicable at the FMU level.

The establishment of 10 KPHPs (see Table 2) on a total area of 1.4 million hectares is predicted to be able to supply approximately 5 million m³ of wood in 2040 (when 60% of the total area will be productive). This volume will not fully meet the demand of the industry (projected to be about 5.7 million m³ in 2040) unless the growth in industry demand declines. Planning the raw-material supply, including imports from other regions, is therefore a top priority.

From the point of view of fulfilling the raw-material needs of SMEs, the establishment of timber terminals is a key aspect of the Long-term Plan. These terminals, through which all wood in transit will have to pass, will play a role in monitoring the supply of legal wood and will also assist the industry by ensuring continuity of supply. The development of a wood-based industry cluster to assist in the development of SMEs, and another industrial cluster for large-scale wood enterprises, is another important aspect.

In contrast to the peak production period of 1980–2000, when the industry was dominated by plywood and

Table 1. Criterion group and criteria for determining the competency of the core local industry

Criterion group	Criteria
1. Strength of domestic economy	Sector performance Economic dynamics Value-added activities
2. Trade orientation	Performance of trade and investment Participation in the international economy Openness towards foreign business Closeness to market Strategic business alliance
3. Technology and development	Expenses for research and development Agglomeration expertise Joint research activities Technology transfer level
4. Human resource development	Advanced education and training services Basic education Labor relationships Life quality Fee and salary structures
5. Management	Consumer services and product quality Association network Business efficiency Marketing capability Use of information systems Entrepreneurship
6. Financial	Basic modality Fund availability
7. Governance	Law and regulations Business environment Delegation of authority and local autonomy Business facility scheme
8. Infrastructure	Physical facilities Energy cost Availability and flexibility of facilities Transportation cost Management of resources, waste and environment

sawnwood manufacturers, the Long-term Plan to 2040 projects a shift towards fiber-based industries, especially paper, medium-density fiberboard and chipboard, as well as steady growth in the secondary woodworking industry (especially furniture).

Implementing the plan

The Long-term Plan refers to and is harmonized with other long-term plans, such as the Road Map of Forestry Industry Revitalization in Indonesia, 2006–2025, and the Long-term Development Plan for the Province of South Kalimantan, 2005–2025. Ideally, the Long-term Plan for the Sustainable Development of the Wood-based Industry in South Kalimantan Province should stem from an overall plan for the wood sector in all four provinces of

Table 2. Operational objectives and targets for the wood industry in South Kalimantan

Objective	Medium-term target (consolidation phase, 2010–2020)	Long-term target (revitalization, growth and stabilization phases, 2020–2040 and beyond)
Ensuring the availability of sustainable raw material supplies for the wood industry in South Kalimantan	Ensuring continuity of sustainable raw material supply Increasing collector income and people forest Overcoming the problems of illegal logging and illegal wood circulation Building log/timber terminals	Promoting sustainable forest management and ensuring the sustainability of industrial development for the long term in South Kalimantan
Rejuvenating the wood industry, including by repairing, retooling and modifying equipment to increase productivity and efficiency	Rejuvenating the wood-industry machinery Increasing industrial management	Increasing the role of the wood industry in local economic growth Becoming a production centre and creating wood-industry clusters
Processing alternative materials to increase competitiveness	Establishing fiber-based industries Optimizing the use of waste	Developing scale and product diversification in the wood industry
Emphasizing the development of excellent wood products which have high added value	Establishing fiber-based industries Building an energy centre	Developing the scale and product of the wood industry Supporting energy-saving and the provision of energy
Enhancing the role of SMEs through a cluster approach	Improving industry management Building wood-industry clusters	Becoming a centre for wood production and wood-industry clusters in Indonesia
Maintaining export markets and increasing the domestic market	Fulfilling the local market with a variety of creative products Diversifying markets for conventional wood products to become more widely known in other countries Building product marketing facilities	Being integrated with the tourism sector Meeting the needs of the domestic market Positioning in the world wood-product market
Encouraging the wood industry to produce certified green products	Improving industry management Overcoming the problems of illegal logging and timber circulation	Promoting sustainable forest management and ensuring the sustainability of industrial development for the long term in South Kalimantan
Encouraging governments to create conducive business climate	Facilitating coordination of both intra-and inter-business industrial stakeholders Building wood-industry clusters	Creating an institution dealing with the wood industry in South Kalimantan Becoming a centre for wood production and wood-industry clusters in Indonesia
Encouraging the provision of human resources for the wood industry	Developing job training workshops for creative industries' skills development Increasing the role of research and science institutions in human resource development Improving human resource capacity for creative products	Ensuring the provision of human resources for the management of the creative industries

Kalimantan because the flow of wood products among the four provinces is very influential and the wood sectors in the four provinces are interconnected. However, so far there is no official overall master plan for the wood industry in Kalimantan.

Until such an overall master plan is developed, the Long-term Plan provides a blueprint for the future development and success of the wood-based industry in South Kalimantan. For the Ministry of Forestry, the plan can be used as a basis for determining forest policy. For the South Kalimantan Forestry Service, it is expected that the plan

will be a useful tool for the development of a sustainable industry policy. For local people, the implementation of the plan should improve the local economy and employment opportunities by improving the condition of the wood industry. For the private sector, exporters and company owners, the plan will support the competitiveness of their industry and enhance its competitiveness in the long term.

The final report of this project is available on request from the ITTO Secretariat (tetra@itto.int).