Fellowship report

Analysing the imperfections of the sawnwood market in Colombia's South Pacific region

by Sandra Rodriguez

MSc Forest Resources (Economics) Oklahoma State University VEN THOUGH forest covers 50% or more of its land area, Colombia's forestry sector is not well developed and its contribution to the well-being of society is not high. Several reasons can be put forward to explain this; for example: many standing trees do not have a high market value; labour-intensive producers extract high-value woods which are commercialised in an informal market; landowners must become employees of sawmills before extracting timber from their own land; the traditional use of chainsaws to extract and square timber causes high levels of waste and promotes illegal extraction; employment does not promote skill development since timber is pulled by hand to the nearest creek, channel, river or road; salaries do not compensate labour; and loggers do not have an incentive to conserve the forest.

These problems can be overcome. The National Development Forestry Plan (Minambiente 2000) states that economic activities related to forest resources cannot be considered separately from the activities and dynamics of regional and international markets. In this sense, the sustainability of timber production processes should be addressed in the economic, social and political contexts in which production is taking place. One of the objectives of the National Plan is to boost forest products and services in the national and international markets by promoting competitive market links.

The objective of my masters' research was to estimate the degree and nature of imperfections in the sawnwood markets of the South Pacific region of Colombia—which produces 60% of the country's natural-forest sawnwood. This objective was achieved through a description of the structure of the timber market and an examination of the behaviour of the participants in this market. Describing the markets and the degree of imperfection of this region is a contribution to policymakers' efforts to evaluate the participation of the timber market in achieving national economic goals. It also gives a better understanding of the role of the timber market in the alleviation of poverty at the regional level.

Market description

I analysed elements of market structure/conduct/ performance for each market in the chain of commercialisation (*see figure*), which was defined for the South Pacific region by Franco and Galindo (1998) using the Forestry Statistic Information System (SIEF). Four sawnwood markets can be delineated: 1) the market between wholesalers and final consumers (furniture and construction industries) located in Bogotá; 2) the market between concentration yards and wholesalers—concentration yards are located in the southern part of the country, west of the Pacific littoral (Buenaventura); 3) the market between concentration yard and sawmills—sawmills are scattered along the Cauca and Patia rivers; and 4) the market between loggers and sawmills.

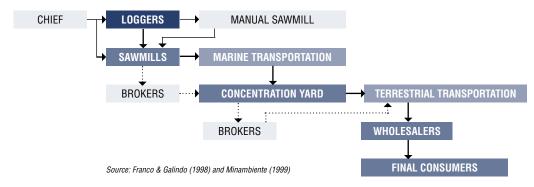
These markets are characterised by some severe imperfections, particularly by high levels of concentration and high barriers to entry. More than 50% of production is concentrated in just a few firms. With their large financial resources, such firms are in a position to squeeze out smaller competitors; they can set the price at the minimum level above marginal cost, or even to unprofitable short-term levels, to weaken their rivals or block the entrance of new firms. Fringe firms set their prices at levels that allow small profits; however, these prices are usually higher than those offered by the concentrated firms. Consequently, sawnwood market conduct is coercive, with the largest firms weakening their rivals.

The South Pacific region has the lowest indexes of quality of life in Colombia; 60% of the population lives in absolute poverty, only 30% has access to health services, and income distribution is highly unequal (Orozco 1999). Salaries in Nariño and Cauca's rural areas are lower than the average minimum salaries in the country: 79% of salaries are below the minimum wage. In addition, the forest is being depleted, and government and financial incentives are insufficient to encourage sustainable management practices in the forest.

Link men

22

Chain of commercialisation for South Pacific sawnwood



Conclusions

Partly because of its imperfect market system, Colombia is not benefiting as it could from its large forest area. Its international sawnwood trade is small compared to that of neighbouring countries Venezuela, Ecuador and Peru; the highly imperfect nature of the domestic market hinders the development of an export trade.

Reform of domestic timber markets has to become a priority for Colombia if they are to contribute as they should to economic development. The manufacturing of value-added timber products should be promoted in Nariño and Cauca to, among other things, increase employment. However, this promotion must be accompanied by good sources of credit and policy incentives that guarantee better use of the resources. Orozco (1997) proposes that larger firms should include local communities in the development of forest management plans; this study supports that view. Such plans could include agreements between firms and communities as a way of reducing barriers to market entry.

My research shows that the concentration yard market is particularly oligopolistic and also has fairly high levels of market power; therefore, extra attention should be paid to this market. The role of markets is to achieve a desirable rate of economic growth, to use resources efficiently and to help stabilise income and employment. Forestry markets are no exception; however, for these markets to properly fulfil this role, the capacity of government to facilitate the market system (by setting standards, enforcing regulations and helping develop human capital, for example) needs to be strengthened. To correct market imperfections and to increase their currently low contribution to economic and social goals, more information is needed; for this, the SIEF, which has already benefited from an ITTO project, should be further strengthened at the regional and national levels. Forestry authorities should consider establishing a survey of timbermanufacturing industries as well as producers for all of Colombia's timber production regions.

References

Bain, J. 1968. *Industrial organization*. 2nd edition. John Wiley and Sons, Inc, New York, USA.

Franco, H. & Galindo, A. 1998. Principales canales y márgenes de comercialización de madera aserrada de sajo (Campnosperma panamensis), cuangare (Dialyanthera gracilipes) y sande (Brosimum utile) proveniente del Pacífico Sur. Universidad Distrital Francisco José de Caldas, Bogotá, Colombia.

Orozco, J. 1997. Diseño de una política de concesiones y permisos forestales para el Pacifico Colombiano. Informe Final. Ministerio del Medio Ambiente, Bogotá, Colombia.

Minambiente 1999. Evaluación de la oferta y demanda nacional de productos forestales maderables y no maderables. Contrato de Consultaría No 980647. Ministerio del Medio Ambiente, Bogotá, Colombia.

Minambiente 2000. *Plan nacional de desarrollo forestal*. Documento de Discusión. Ministerio del Medio Ambiente, Bogotá, Colombia.

This work was carried out with the assistance of an ITTO fellowship grant.

ITTO offers fellowships through the Freezailah Fellowship Fund to promote human resource development and to strengthen professional expertise in member countries in tropical forestry and related disciplines. The goal is to promote the sustainable management of tropical forests, the efficient use and processing of tropical timber, and better economic information about the international trade in tropical timber.

Eligible activities include:

- participation in short-term training courses, training internships, study tours, lecture/ demonstration tours and international/regional conferences;
- technical document preparation, publication and dissemination, such as manuals and mongraphs; and
- post-graduate studies.

Priority areas: eligible activities aim to develop human resources and professional expertise in one or more of the following areas:

improving transparency of the international tropical timber market;

ITTO fellowships offered

- promoting tropical timber from sustainably managed sources;
- supporting activities to secure tropical timber resources;
- promoting sustainable management of tropical forest resources;
- promoting increased and further processing of tropical timber from sustainable sources; and
- improving industry's efficiency in the processing and utilisation of tropical timber from sustainable sources.

In any of the above, the following are relevant:

- enhancing public relations, awareness and education;
- sharing information, knowledge and technology; and
- · research and development.

Selection criteria: Fellowship applications will be assessed against the following selection criteria (in no priority order):

 consistency of the proposed activity with the Program's objective and priority areas;

- qualifications of the applicant to undertake the proposed fellowship activity;
- the potential of the skills and knowledge acquired or advanced under the fellowship activity to lead to wider applications and benefits nationally and internationally; and
- reasonable ness of costs in relation to the proposed fellowship activity.

The maximum amount for a fellowship grant is US\$10 000. Only nationals of ITTO member countries are eligible to apply. The next deadline for applications is **7 September 2005** for activities that will begin no sooner than 1 January 2006. Applications will be appraised in November 2005.

Further details and application forms (in English, French or Spanish) are available from Dr Chisato Aoki, Fellowship Program, ITTO; Fax 81–45–223 1111; fellowship@itto.or.jp (see page 2 for ITTO's postal address) or go to www.itto.or.jp