Out on a limb

The nature of investment in natural tropical forests is changing

by Adrian Whiteman

Food and Agriculture Organization of the United Nations Viale delle Terme di Caracalla 00100 Rome, Italy adrian.whiteman@fao.org **NE OF THE MAJOR** challenges for financing sustainable forest management (SFM) in natural tropical forests is economic viability. The growth of commercial species in most natural forest types is relatively slow and tropical forest products have suffered in recent years from declining prices and market shares and a relatively small amount of value-added from wood production. In addition, the stocking of commercial trees is low, in some natural forest types more so than others, production and management costs may be high (eg in remote areas), and alternative land-uses may offer higher financial returns.

SFM requires forest managers to respect non-market benefits, which generally increase management and transaction costs—that is, the compliance costs of producers and the enforcement costs of forest administrations. In addition, the forest concession systems used in many tropical countries may be expensive to administer properly due to the different objectives of the owner of the resource (often governments), the manager or producer of benefits (usually the private sector), and the main beneficiaries of forest management (primarily the private sector, but also other stakeholders).

Harvesting in primary tropical forests is still generally very profitable, with value-added' probably ranging from US\$500 per hectare in dryland forests to US\$3000 per hectare in moist tropical forests containing high-value timber species. However, very little high-value primary tropical forest remains available for harvesting. In secondary tropical forest, forest management is much less profitable because of the reasons articulated above; value-added may be as low as US\$20 per hectare per year in dryland forests and US\$100 per hectare per year in moist tropical forests. With these returns, it is difficult for natural forest management to compete with alternative land-uses such as agriculture, agricultural tree crops and forest plantations.

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> The implications of the above for investment in sustainable natural forest management are that there is some scope for investment in improved harvesting but little incentive to invest in long-term management, which involves long-term recurrent costs and minimal returns. The conditions under which SFM may be economically viable are likely to be found in forest concessions in locations with high stocking and

> ¹Value-added means the value of roundwood sales less non-labour production costs (eg fuel, tools, machinery and equipment)

few alternative uses. In addition, small-scale SFM by local people may be viable in areas with low stocking (eg dryland forests) and little population pressure.

Investment is driven by market signals. Unfortunately, there is generally very little information on the returns on investment in sFM in natural tropical forests, markets do not appear to offer significant benefits for the sustainable production of forest products (eg premiums for certified forest products), and government policies in support of sFM are often weak.

Trends in government policies and institutions

The framework for investment in sFM has also been affected by recent trends in government policies and institutions. These include:

- the generally low (and declining) level of funding for forestry administrations in many countries, including from the international donor community;
- decentralization and the delegation of functions to lower levels of government;
- privatization and less direct public intervention in many sectors (including forestry); and
- changes in the role of governments from providers to purchasers of public services.

These factors have generally weakened the capacity of governments to support investment in SFM in many tropical countries.

The role of governments in promoting investment in SFM

Broadly speaking, governments have four sets of tools or instruments for promoting investment in SFM. These are: direct intervention and/or investment; regulation; fiscal policies and market mechanisms; and measures to raise awareness about SFM.

Direct intervention: governments currently have very little direct involvement in commercial forest harvesting. Direct intervention is mostly focused on activities in protected areas, but these are often

under-funded. In the future, direct involvement in commercial



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forestry is likely to continue to decline, particularly with the trend towards the privatization of state forest enterprises, and investment in protected areas is likely to remain limited due to financial constraints. However, a recent emerging trend is the greater involvement of private-sector and non-government agencies in protected area management. Public-private partnerships in protected areas are starting to raise the level of funding for management activities by marketing forest services such as ecotourism and bioprospecting. More of this can be expected in the future.

Regulation: forestry is highly regulated in many countries, but many regulations are outdated, unclear and conflicting. Because of its high costs, forest law enforcement is weak in many countries, although it may be improving in some. Given the costs, a low level of enforcement may be economically optimal in many cases. In the future, improved regulation of the sector requires: more focus and deregulation (where appropriate); a more structured approach to law enforcement; a clearer definition of rights and responsibilities of all stakeholders involved in the sector; and a strengthening of the social contract between lawmakers and society to support compliance with the law.

Fiscal policies and market mechanisms: forest charges remain low in many countries and current fiscal policies are probably the main constraint to investment in sFM. Inadequate fiscal policies send incorrect market signals to producers of forest products, leading to waste and inefficiency in the sector. In addition, as a result of these policies many countries spend more on their forest administrations than they collect in forest charges and there are few positive incentives for sFM. A high priority for countries should be to revise their fiscal policies in the forestry sector to correct market signals and create an environment in which investments in sFM produce positive financial returns. Although payments for environmental services are developing, the amounts are currently insignificant compared to the global value-added from wood production and they are unlikely to have a major impact on investment in sFM in the near future.

Measures to promote SFM: currently, there is a lack of information about returns on investment in SFM. Information about SFM techniques is increasingly available but is not widely disseminated at the field level. In addition, few countries have specific policies to promote investment in SFM in natural forests (as opposed to forest plantations). Information is improving in some countries, but more needs to be done and policies and legislation should be examined and revised (where necessary) to promote investment in SFM.

The role of international organizations

International organizations can play a role in encouraging investment in SFM, particularly with respect to the collection and sharing of information and experiences in countries. An international mechanism to provide long-term finance to support the production of global non-market benefits from tropical forests has been debated, but seems elusive. However, international discussions might help to encourage investment in SFM if they are focused on more practical issues such as market access, trade facilitation and the coordination of fiscal policies.



Paddling against the current? Natural forest management has trouble competing against alternative land-uses. *Photo: G. Wetterberg*

The future for investment in natural tropical forests

One final thought concerns the broader outlook for the production of forest products from natural tropical forests. SFM means many different things to different people and although there has been some progress towards it in the tropics, experiences have been mixed, success has not been widespread and harvesting in natural tropical forests remains controversial to many people, particularly in developed countries.

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Given this, and the declining financial viability of SFM in many natural tropical forests, it seems likely that the trend towards greater production of forest products from planted forests is likely to continue. A relatively small area of planted forests could meet most of the demand for industrial roundwood and there are strong indications that a transition in harvesting from natural to planted forests is already well under way. In light of this, the type of investment needed in natural tropical forests is likely to change radically over the next 10-20 years. In a majority of locations, largescale forest concessions are likely to become increasingly uncompetitive compared to wood production from planted forests. Thus, if commercial investment in natural forests is to increase, it should probably focus more on supporting production by small and medium-sized enterprises to meet local demands and supply niche markets.