is difficult to support empirically, but has gained sufficient public currency to influence environment and development policies (Lambin et al. 2001). While not denying a role of poverty or population growth, most case studies fail to confirm this simplification in lieu of other, more important, if complex, forces of tropical deforestation. Results of carefully structured surveys – be they qualitative (Kates and Haarmann 1992), model-oriented (Angelsen and Kaimowitz 1999), or quantitative (Geist and Lambin 2002) in nature – support the view that impoverished populations are never the sole and often not even the major underlying cause of forest-cover change. Kates and Haarmann (1992), for example, found a set of interactive processes linking poverty and environmental degradation. (Kates and Haarmann 1992). The case studies, which they explored qualitatively, told common tales of poor people’s displacement from their lands, the division of their resources, and the degradation of their environments culminating in three major spirals of household impoverishment and environmental degradation. (Kates and Haarmann 1992). The causes of deforestation require investment, rich people may in fact be in a better position to clear new forest land” (Angelsen and Kaimowitz 1999, p. 92). This implies a call for more nuanced policy interventions that reach far beyond the marginal population living in or near forests. Any universal therapy to control deforestation is therefore doomed to fail. Policies to control deforestation have to be designed for and fine tuned to local conditions.

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Making markets work for forest communities1

S.J. SCHERR2, A. WHITE3 and D. KAIMOWITZ4

2 Senior Policy Analyst, Forest Trends, Washington, D.C., USA.
3 Director of Policy and Market Analysis, Forest Trends, Washington, D.C. USA.
4 Director General, Centre for International Forestry Research, Bogor, Indonesia.

Email: Sscherr@forest-trends.org, Awhite@forest-trends.org, D.Kaimowitz@cgiar.org

THE CONSERVATION, POVERTY AND MARKET CONNECTION

There is an inextricable link between the future of the world’s forests and millions of the world’s poorest people. One-quarter of the world’s poor depend fully or in part on forest products for subsistence needs. Among the rural poor, the percentage is substantially higher. Population growth in tropical wilderness areas is 3.1% – more than twice the average rate of global population growth – and more than one billion individuals now inhabit the top 25 endangered biodiversity “hot spots.”

Changes in supply, demand, and governance offer new opportunities for low-income forest communities to earn more from their forest assets. At least 25% of developing

1 This ‘Comment’ is based on policy brief by the same authors, published with the same title by Forest Trends in 2002.
countries’ forests are now owned or administered by indigenous and other communities. In addition, millions of small farmers in the developing world are growing trees — not only for the purpose of recovering local ecosystem losses, but also to meet rapidly growing demand for forest products. In many cases, forests and farmed trees are the principal assets of the poor, providing some households with significant opportunities for poverty alleviation.

Currently, however, many policies pose formidable barriers for low-income producers, discriminating against community forest enterprises, keeping prices low and limiting income opportunities. Often, local producers cannot acquire sufficient capital, contacts, information or technology to exploit new opportunities. Under policies promoted by some environmental groups, governments and industry lobbies, most industrial wood would come from industrial plantations in the near future — increasingly consolidating the forest industry and isolating forest and farm communities from potential income. Similarly, many leading environmental organisations are advancing conservation strategies that “lock-up” community forest resources, denying local people the option of sustainable forest use — yet unfortunately often fail to deliver compensation to these people for use of their forests for the global good.

Unless the next decade brings a major global effort to secure and develop the opportunities of local communities to benefit from their trees and forests over the next decade, these communities will be unable to capitalise on their forest assets — and will thus have little incentive to protect them.

For many poor rural people in forested and marginal agricultural lands, commercial markets for forest products and ecosystem services offer one of the few available and sustainable options to overcome their poverty. Some one-quarter of this group depends fully or in part on forest resources to meet subsistence needs for staple and supplemental foods, construction materials, fuel, medicines, cash and local ecosystem services, as well as farm inputs such as animal feed and nutrients for crops. But many of these same rural people are also forest producers, from indigenous communities with vast tracts of natural tropical forests who plant trees along their farm boundaries. Low-income farmers may earn 10 to 25% of their household income from non-timber forest products (NTFPs), like mushrooms, fruits or medicines. Small-scale processing of forest products like furniture, tools and baskets also provides a large source of rural non-farm employment.

Low-income forest producers include:

- indigenous and other community groups who manage collectively-owned forest resources
- local individuals or groups who co-manage or harvest products from public forests
- smallholder farmers who manage remnant natural forest or plant trees in or around their crop fields and pastures
- individuals or groups who engage in small-scale forest product processing and
- employees of forest production and processing enterprises.

As we enter the 21st century, the debate about forestry is intensifying, particularly with regard to the three seemingly contradictory goals of conserving forests, meeting fast-growing market demand and promoting sustainable development to reduce rural poverty. Development assistance efforts in recent years have focused on forests as “safety nets” for low-income forest dwellers. These efforts emphasise access to forest resources for the poor to meet their subsistence needs. But much less has been done to help local people exploit their forest assets in a sustainable manner to take advantage of the opportunities (and cope with the pressures) of growing demand for forest products.

Some development organisations have become disenchanted with forestry, arguing that it has contributed little to poverty reduction. There is also concern that greater commercial activity by low-income forest populations would threaten conservation.

However, it is unlikely that large-scale conservation can be achieved without engaging local people in marketing their forest products and services. Furthermore, fundamental changes underway in forest supply, demand and governance offer new opportunities for low-income producers (Box 1). With well-designed assistance for community-based enterprises, supportive policies, and the active engagement of the private sector, tens of millions of poor households can benefit from forest markets.

Promoting commercial forest market development — while also reducing rural poverty — will require new vision and targeted action. This commentary identifies the most promising market opportunities for local producers in developing countries, and illustrates possible business models with real life examples. A set of strategies for realising that potential is also presented.

RECONCILING CONSERVATION WITH COMMERCIAL DEVELOPMENT

Resistance to opening markets for low-income forest producers has stemmed in part from forest conservation concerns. This stance often ignores the fact that most remaining “wilderness” areas contain indigenous residents with legitimate claims to the land. The fact that communities are as good, and often better, managers of their local forests than governments is also disregarded. There is considerable evidence that local people can, and do, protect forests and ecosystem services of local and global value.

Some influential policymakers have argued that forest conservation can best be achieved by concentrating commercial forest activity in very high-productivity areas and subsidising plantations. This theory is fundamentally flawed for countries with large, poor rural populations and large domestic forest markets – a category to which most tropical forested countries belong. This approach does not
BOX 1 Global Forest Transitions Creating Opportunities for Small-Scale Producers

- **Increased control of forests:** Nearly one-quarter of the forest estate in the most forested developing countries is now owned (14%) or de facto controlled (8%) by indigenous and rural communities, as a result of recent government recognition of local claims and devolution. Local ownership offers opportunities to capitalise on forest assets.

- **Growing product demand:** Though demand for forest products in developed countries is growing slowly, demand in developing countries is growing rapidly—and this demand will have to be met mainly by domestic production. New processing technologies are creating demand for small-diameter, lower-quality wood which communities can and do produce.

- **Increasing scarcity raises the value of natural forests:** The supply of tropical hardwoods from natural forests has declined greatly, due to deforestation, over-harvesting, establishment of protected areas, and civil disturbance. Thus stands of natural tropical hardwoods are becoming more valuable, and local people hold a substantial and increasing share of these stands.

- **Forest intensification:** Demand has prompted intensified forest management. Forest scarcity, increased prices of timber relative to those for grain, expansion of farming into marginal lands, tree domestication and outgrower arrangements have stimulated extensive tree-growing and commercialisation on small farms.

- **Globalising markets:** While globalisation often favours highly efficient, lower-cost producers, it is also opening opportunities to non-traditional suppliers, as new niche markets arise and buyers become more proactive in seeking and securing reliable sources of scarce forest commodities.

- **Environmental service demand:** Environmental concerns are creating new markets for certified forest products and ecosystem services. Socially and environmentally aware investors are exploring opportunities to invest in sustainable forest management, including local farm and community producers.

- **More democratic governance:** Investor and consumer demands for socially responsible forestry are beginning to drive improved social protections for forest communities. Democratisation is fostering reforms in forest governance that give greater voice to local people. International norms increasingly support indigenous land rights.

reduce domestic demand for wood. It does reduce the financial incentive to invest in more sustainable production in natural forests, driving producers into unsustainable, illegal, low-return systems. Further, it denies communities the use of their assets for their own economic benefit.

Still other policymakers propose that conservation can best be achieved by imposing public ownership on lands already locally owned or banning the sustainable use of forest resources on private forests. Rather than continue to ignore and deny indigenous and other communities rights to use their forests, conservationists and the forest industry should partner with indigenous peoples to support conservation and sustainable production. This shift would greatly extend the area of natural forest effectively under long-term conservation. In forest-scarce areas, broad-based regulatory, tenure and market reforms can provide incentives to reforest degraded ecosystems.

**POTENTIAL COMPETITIVE ADVANTAGES HELD BY POOR PRODUCERS**

For many producers, reforms in policies and business support will allow their forests to increasingly contribute to their own economic development. Low-income forest producers have potential competitive advantages for important segments of commercial forest markets:

- **Ownership by indigenous and rural communities.** At least a fourth of forests in the most forested developing countries is now owned (14%) or officially administered (8%) by indigenous and rural communities, as governments are recognising local land claims and/or devolving control to local populations. These percentages have doubled in the last 15 years and are projected to double again in the next. Indigenous and other communities already own more than three times as much forest in developing countries as do private firms and individuals. In forest-scarce regions, agroforestry has expanded greatly on small farms; in Bangladesh, for example, farms account for most timber production.

- **Proximity to and knowledge of local markets.** Forest dwellers located near populated centers with growing domestic demand, particularly inland cities far from commercial ports, have lower transport costs, are more familiar with local preferences, have the flexibility to supply small quantities as needed by local traders and can provide fresher supplies of NTFPs.

- **Price advantage.** Some producers can supply products at lower prices than large-scale commercial suppliers. Many have lower opportunity costs for land and labour and many value the collateral benefits of community employment or ecosystem services. In agroforestry systems, the costs of tree production may be lower due to joint production with crops and livestock. Trees may even have a positive effect on the income of associated crops, as in the case of windbreaks.

- **Resident owner-managers.** Some forest communities can be competitive because they have resident owner-managers, while corporations must account for the cost of hired management and labour.

- **Sustainability.** Often, communities are eager to adopt sustainable management systems to avoid boom and bust cycles.

- **Better monitoring and protection.** Because they are present and because they are highly motivated to protect their long-term community interests, local people may
better monitor and protect forest resources from risks like urban encroachment, theft and fire.

- **Branding in specialised markets.** Forest dwellers have an advantage in branding for specialty markets, enabling them to target consumers or investors sensitive to reputation or involved in “socially responsible” market niches.

### COMMERCIAL OPPORTUNITIES FOR LOW-INCOME PRODUCERS

Global forest transitions are creating new opportunities for small-scale producers in particular markets. Examples of market opportunities and business models are detailed in the policy brief on which this commentary is based, including estimates on the number of producers with potential to participate in each market by 2025 and the potential for this participation to increase household incomes.

- **Commodity wood (construction-grade, poles, woodfuel):** Rapidly growing domestic demand for commodity wood – for urban settlements, industry, fuel and infrastructure offers the largest potential market. Community forest owners and farmers in forest-scarce locations near rapidly-growing inland population centres can be competitive suppliers, as can some user groups co-managing public forests.

- **High-quality timber (appearance-grade):** Community forest owners of natural forests with high quality, accessible timber, strong community organisation, and good marketing and management skills can profitably sell tropical hardwoods. In forest-scarce areas with high income growth and good market access, small-scale farmers can profitably sell high-value timber from agroforestry.

- **Industrial pulpwood (chemically-treated wood products):** In densely settled, forest-scarce countries with large markets for pulp, farmers or communities near mills can produce pulp, especially on lower-quality lands. To prevent or reverse environmental degradation, such as flood control and dam sedimentation. Once agreements are in place for carbon-offset trading, millions of local producers also will benefit if operational guidelines are developed to reduce monitoring and transaction costs.

- **Certified wood:** Some community forest owners and some farmers can benefit from certified wood markets, if they have direct links to export for wholesale or retail buyers, if they have partners willing to underwrite certification costs and if they are already operating at levels close to certification standards.

- **Non-timber forest products:** Economic potential for the greatest number of low-income producers lies in growing or collecting products for which demand increases as consumers’ incomes increase. Especially promising are those with qualities that make them difficult to grow in large-scale intensive plantations, for example certain kinds of mushrooms. Accountable intermediary trading organisations are required. Export potential is limited by the high costs of conducting transactions, meeting quality standards, achieving volumes, and retaining competitiveness. Enterprises based on collection of wild species in community or public forests require conservation plans.

- **Forest product processing:** Many local producers will benefit from pre-processing to reduce waste, increase quality or reduce transport costs, and from production of furniture and commodities for poor consumers in growing markets. Small-scale sawmilling will be viable in markets where industrial high-efficiency mills do not compete. High-value finished products, such as decorative flooring or furniture, may be viable where commercial links can be forged with higher-income consumers and producers can standardise product quality.

### MARKETS AREN’T FOR EVERYONE

In many cases, small-scale producers cannot compete with low-cost industrial producers, or products from land-clearing and illegal extraction. For some rural communities and farmers with low-quality forest resources and poorly developed market infrastructure, commercial markets will not play an increased role in their livelihoods. Even where forest market conditions are favourable to small-scale forest holdings, many of the very poor will benefit mainly as hired labourers for small forest enterprises or from the employment multiplier effects of local forest development. For these people, forestry development should focus primarily on subsistence and environmental values.

### A FRAMEWORK FOR ACTION

While these opportunities are exciting for many low-income producers, under current conditions they face serious constraints to successful forest market participation. In order to realise potential market benefits, targeted action is needed on two fronts: developing small-scale forest enterprises and removing the barriers constructed by certain policies.

#### Developing forest enterprises

- Improve market position
  - To raise incomes significantly, producers need to analyse the value chain in their markets and establish a competitive

- Improve market access
  - To significantly improve the competitiveness of small-scale forest enterprises, targeted action is needed on two fronts:
    - Developing small-scale forest enterprises
    - Removing the barriers constructed by certain policies.
position. This may mean improving production and marketing technology, product quality or reliability of supply. Local sales of low-value wood products and NTFPs with stagnant demand can play an important role in the livelihoods of forest dwellers. But long-term income growth will depend upon a successful response to growing demand for domestic forest commodities. This requires building supply networks that link producers to markets and increased production efficiency. The small-scale producers’ potential for successfully supplying commodity markets is illustrated by the pulpwood outgrower schemes in South Africa.

To access high-value specialty markets and ecosystem services, producers must be highly responsive to consumer preferences and have good marketing strategies. Low-income producers need to manage risks through a “portfolio” of products in different income/risk categories, maintaining the capacity to switch products as demand changes. Those revenue streams may derive from harvesting different products from a multi-purpose tree, harvesting at different ages, or harvesting from a diverse mix of species. Market development should occur over time, as producer capacity develops.

**Strengthen producer organisations**

Often, strong local producer organisations are needed. Commercial development can require producers to make capital investments, undertake processing activities, organise marketing deals and establish product quality or conservation controls. Groups can contract with intermediaries to assure supplies to a buyer. In regions with underdeveloped market institutions, groups of producers can work together to overcome value chain “gaps,” for example, by setting up reliable transport services, recruiting regional traders, establishing log sorting yards or agreeing to quality standards. The payoff for strengthening producer organisations has been demonstrated by the business and environmental outcomes of the Proyecto de Conservación y Manejo Sostenible de Recursos Forestales (PROCYMAF) project in Mexico.

**Promote strategic business partnerships**

Strategic business partnerships can benefit both private industry and local producers. At least 57 countries have at least one community-company forestry partnership. Through these arrangements, industrial firms can access wood fiber and non-wood products at a competitive cost, along with forest asset protection, local ecosystem expertise and social branding opportunities. Business partners can provide local producers with high-quality planting materials, technical assistance, quality control, investment resources for expansion and marketing, research and business expertise. An effective partnership requires a long-term perspective for business development, flexible contract terms, special attention to reducing business risks (such as spreading sources of supply among different producer groups), and mechanisms to reduce transaction costs. Industrial partners, accustomed to specialisation, need to respect the diversified livelihood strategies of their lower-income partners. The potential for successful business partnerships between indigenous communities and industrial companies is illustrated by Iisaak Forest Resources in Canada. Third parties, such as conservation organisations, NGOs and public forest agencies, have successfully brokered partnerships between large firms and small-scale producers.

**Establish business services**

Local business success also depends on access to essential business services, tailored to meet the special requirements of lower-income producers. These include management services; organisational support; technical assistance for production, conservation and processing; market information; insurance; marketing assistance and financing. In the early stages of local forest market development, such services rarely exist in most rural communities. They must be provided by nonprofit public or civic agencies, such as PROCYMAF in Mexico, or a private entity such as a venture capital fund in Brazil. As local capacity and scale of production expand, the private sector can find profitable opportunities. Research support is needed to help forest enterprises increase productivity and reduce costs. Leaders of forest-producer organisations need training in community facilitation, technical forest management and marketing.

**Target education and research to community forestry**

Forming a commercially viable community-forestry sector will require developing, disseminating and adapting to new production, processing and management systems. Education and training programs must foster this new expertise, integrating sustainable forest management, business and marketing skills with community facilitation. Research should focus on technical, economic, institutional and policy problems relevant to forest communities and small-scale farmers.

**Removing policy barriers**

**Secure forest access and ownership rights of local people**

Currently, uncertainties about forest tenure and restricted forest access are the most binding constraints to development and expansion of local forest businesses. Half to two-thirds of all forests are state-controlled, including large deforested areas, degraded forests, and farmlands on steep slopes. Clear tenure rights authorise local people to protect forests against outside encroachment, as well as to enter into business contracts. Transferring or returning forest assets to the ownership or long-term use of local people is a politically and financially feasible first step for poverty reduction. Many countries have begun to formally devolve ownership or long-term usufruct rights to local households or communities. Still, a high level of state control often remains and the highest-quality forests are either retained by the state or the state claims a disproportionate share of income from those lands. In
Indonesia and the Philippines, some local groups have successfully negotiated new rights by demonstrating sustainable forest management. More secure forest access and ownership rights for local people must be pursued aggressively, including the establishment of property rights for ecosystem services.

Remove regulatory barriers
Reducing the excessive regulatory burden on local forest producers is essential for them to utilise their own forests or public forests for economic development. Market activity in most developing countries is choked by excessive state regulation. In some regions of India, for example, ten separate permits are required for community forest producers to complete a timber sale. In other countries, indigenous communities have long-term rights to extensive tracts of natural forest, but they are denied the right to commercially exploit them. Complex, poorly understood and contradictory regulations from various agencies make compliance difficult, encouraging selective enforcement. This drives millions of people to operate illegally. In many cases regulations can be replaced by strong technical assistance programs that promote and monitor “best practices,” or by adopting certification as an alternative. The requirements of forest management plans and certification need to be radically simplified for small-scale producers to comply.

“Level the playing field” in forest markets
Forest market policies that discriminate against small-scale producers also must be reformed. Lower-income forest producers benefit most from a “level playing field” consisting of markets with many buyers and sellers, few limitations on market entry or operation, flexible quality and volume requirements and no subsidies or regulations that favour large-scale actors. Yet most governments subsidise or provide privileged access to large-scale producers and processors. They have a plethora of rules that distort markets and burden small-scale producers, maintain product standards biased against producers (such as over-dimensioning of lumber) and establish official monopoly buyers and set excessive taxes and forest agency service charges. In most countries, the reforms necessary to benefit the poor would benefit the business sector and the forests as well.

In Bolivia, for example, far-reaching forest policy reforms have included not only formal recognition of indigenous groups’ forest rights; they also have exempted small-scale forest producers from some requirements. Their concession fees have been lowered, the process for accessing municipal forests has been simplified and assistance with marketing and forest certification has been provided.

Involve local producers in policy negotiations
Local producers’ active involvement in forest policy negotiations will result in more practical, realistic and lower-cost laws, market regulations and development plans. In some countries, democratisation has enabled greater participation. It has forced greater transparency in forestry markets. Forest rights and regulatory reforms have been achieved through political alliances involving local producer networks, private industry, government agencies and/or environmental groups that stand to benefit from forest market development.

Protect the poorest
Mechanisms must be developed to protect the interests of the poorest forest users and producers without sacrificing others’ potential income gains from commercialisation of public forests. It is most important to retain forests’ “safety net” function, particularly ensuring access to subsistence products or harvest rights at certain times of the year. This involves sharing the benefits of communal forest enterprises, granting plantation cleaning rights to the landless poor and giving the landless a voice in forest management.

ROLES FOR KEY ACTORS
Efforts to reduce poverty through commercial forestry should be realistic, but ambitious. Risks will be lowest for low-income producers with strong competitive positioning. This includes areas where communities have competitive advantages, secure tenure rights and established organisations; where major policy barriers are limited; where business people have desire to partner with community forest enterprises; and where industry is open to sustainable and socially responsible forestry.

Private businesses including forestry industry, community organisations, and private financial and business service providers will necessarily play central roles. Business attention should be attracted first to the more promising sustainable forest management (SFM) opportunities. Businesses that can identify the competitive advantages of forming partnerships and working with local producers will strengthen their long-term supply and cost position. Innovative financing strategies can be pursued with socially and environmentally responsible investors. Business leaders can play an active role in governments’ policy reform.

National, state and local governments can help to strengthen local forest tenure rights and producer associations, reform market laws to “level the playing field” for low-income producers, simplify regulations and taxation, make industry-producer partnerships more attractive, encourage business support services, provide or facilitate strategic financing for market development and involve local producers in policy formulation. At the same time, governments must safeguard and strengthen the “safety net” role of forests.

Development and conservation organisations can play a catalytic role in raising awareness of business opportunities, promoting policy changes, facilitating viable business partnerships and establishing business support services targeted to low-income producers and community foresters. These groups can assist in developing guidelines for forest
management plans, certification processes and transparency, as well as other global industry norms that enable full participation by local producers. Low-cost information services, through the Internet and other media, can provide broad access to available data, market information and resources.

**Research organisations** can work with community forest owners and farmers to develop and field-test production and processing systems that are more efficient, profitable and accessible. Researchers can analyse the financial and organisational viability of different business models for local enterprises and producer-industry partnerships.

**A NEW FOREST AGENDA**

Forests, forest communities and forest markets are changing in fundamental ways. The manner in which society values and manages forests is being seriously revisited. The growing awareness of environmental and social concerns, as well as changes in land tenure, means that forest conservation and stewardship cannot be achieved without engaging forest communities and compensating them appropriately for their contributions. This new forest agenda requires enabling communities to use forest assets for economic development by building community enterprises and partnerships with industry, and challenging policies that restrict forest access and ownership to expand opportunities for low-income forest dwellers.

Compelling examples – such as the Iisaak community-company partnership in British Columbia, the enterprise-accelerator model of PROCYMAF in Mexico, the Terra Capital biodiversity fund in Brazil, and the out-grower schemes in South Africa illustrate the potential for markets and investments in forest enterprises to benefit some of the world’s poorest people. The success stories may be modest in number today, but with strategic action over the next generation, they will continue to grow – improving the future for the world’s forests, for poor populations and for all of us.