MAKING MARKETS WORK FOR FOREST COMMUNITIES

Policy Brief [1]

by Sara J. Scherr [2], Andy White [3] & David Kaimowitz [4]

Forest Trends
Washington, D.C.

Center for International Forestry Research
Bogor, Indonesia

ISBN 0-9713606-1-8

[1] This Policy Brief is based on a longer paper by the same authors, soon to be published by Forest Trends.
[2] Senior Analyst, Forest Trends, Washington, D.C., USA. Sscherr@forest-trends.org
[3] Director of Policy and Market Research, Forest Trends, Washington, D.C. USA. Awhite@forest-trends.org
[4] Director General, Center for International Forestry Research, Bogor, Indonesia. D.Kaimowitz@cgiar.org

PREFACE

There is an inextricable link between the futures of the world's forests and millions of the world's poorest people. Some one-fourth of the world's poor depend fully or in part on forest products for subsistence needs.[1] Among the rural poor, the percentage is substantially higher. Population growth in tropical wilderness areas is 3.1 percent—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." [2]

Changes in supply, demand, and governance offer new opportunities for low-income forest communities to earn more from their forest assets. At least 25 percent of developing countries' forests are owned or administered by these 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 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 and industry lobbies, most industrial wood would come from plantations in the near future—increasingly consolidating the forest industry and isolating forest and farm communities from potential income.

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

This policy brief by Sara Scherr, Andy White and David Kaimowitz lays out strategies to improve the contributions of forest markets to local livelihoods. It provides an overview of the key arguments and findings described in a longer report by the same authors. It is offered as the first step in a longer-term effort to promote forest markets that enhance the livelihoods of poor people while conserving our forest resources.

While forests are providing critical "safety nets" and subsistence for the poor, there are specific market niches where large numbers of low-income producers have—or could develop—competitive advantage. It is vital to alter the policies that hinder forest producers' income opportunities, and to engage the private sector in forging successful community business partnerships. Strategies for community organizations, private forest companies and investors, rural development institutions and policymakers to accomplish this shift are outlined. We believe that readers from all of these diverse perspectives will find great value in this brief.

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.

Michael Jenkins, *Executive Director, Forest Trends*
David Kaimowitz, *Director-General, Center for International Forestry Research*

CONTENTS

FORESTRY AND RURAL LIVELIHOODS

Forests and trees play a critical role in the livelihoods of the world's poor. Some one-fourth 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 to individual farmers who plant trees along their farm boundaries. Low-income farmers may earn 10 to 25 percent of their household income from non-timber forest products (NTFPs), like mushrooms, fruits or medicines.[3] Small-scale processing of forest products like furniture, tools and baskets also provides a large source of rural non-farm employment.[4]

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.

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 forests 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 or 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 emphasize 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 to cope with the pressures) of growing demand for forest products.

Some development organizations 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 policy brief 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 realizing that potential is also presented.

Box 1 — Global Forest Transitions Creating Opportunities for Small-Scale Producers

- **Increased control of forests:** Nearly one-fourth of the forest estate in the most forested developing countries is now owned (14 percent) or officially administered (8 percent) by indigenous and rural communities, as a result of recent government recognition of local claims and devolution. Local ownership offers opportunities to capitalize 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.

- **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.

- **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 commercialization on small farms.

- **Globalizing markets:** While globalization often favors 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.

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

Sources: *Wunder, S. 2001. Poverty alleviation and tropical forests—What scope for synergies? World Development 29(11); R.P. Neumann and E. Hirsch. 2000. Commercialization of Non-Timber Forest Products: Review and Analysis of Research. Center for International Forestry Research, Bogor, Indonesia; White, T.A. and Martin, A. 2002. Who Owns the World's Forests? Forest Trends, Washington, D.C. FORTHCOMING*

RECONCILING CONSERVATION WITH COMMERCIAL DEVELOPMENT

Resistance to opening markets for low-income forest producers has stemmed in part from forest conservation concerns. This stance 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 also is disregarded. There is considerable evidence that local people can—and do—protect forests and ecosystem services of local value.[5]

Some influential policymakers have argued that forest conservation can best be achieved by concentrating commercial forest activity in very high-productivity areas and subsidizing plantations.[6] This theory is fundamentally flawed for countries with large, poor rural populations and large domestic forest markets. This approach does not reduce domestic demand for wood. It reduces the economic 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 and public protected areas on lands already locally owned. 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:** Nearly a fourth of the forest estate in the most forested developing countries is now owned (14 percent) or officially administered (8 percent) by indigenous and rural communities, as governments are recognizing local land claims and/or devolving control to local populations. 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 labor 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 labor.
- **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 specialized 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. This brief highlights several important examples. Greater detail also is provided in the following pages (Table 1), 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 centers 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 organization 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 protect food security and the environment, plantings should be in mosaics with natural forest and cropland.
- **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 organizations are required. Export potential is limited by the high costs of conducting transactions, meeting quality standards, achieving volumes, and retaining competitiveness. Enterprises based on collecting 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 standardize product quality.
- **Payments for ecosystem services:** Some forest dwellers in areas with high ecosystem values, such as watershed protection or biodiversity habitat, can sell those services in private or public deals. Many more may begin receiving public payments for ecosystem services that 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 set with local producers in mind, and if mechanisms are developed to reduce monitoring and transaction costs.[7]

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 livelihoods. Even where forest market conditions are favorable to small-scale forest holdings, many of the very poor will benefit mainly as hired laborers 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 the opportunities are exciting for many low-income producers, under current conditions they face serious constraints to successful forest market participation.[8] In order to realize 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, a producer needs to analyze the value chain in the market and establish a competitive 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. Small-scale producers' potential for successfully supplying commodity markets is illustrated by the pulpwood outgrower schemes in South Africa (Box 2).

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.

Box 2 — South African Farmers Produce Industrial Pulpwood

In the 1980s, farmers in KwaZulu-Natal, South Africa, entered into outgrower schemes with the international pulp and paper companies Sappi and Mondi. The two firms now contract with more than 10,000 growers on nearly 18,000 hectares. The average plot sizes are 1.5 hectares for the Mondi project and 2.7 hectares for the Sappi project. Farmers, more than half of whom are women, grow trees on their own land under purchasing agreements with the companies. The companies provide material goods such as seedlings, tools and fertilizer; low- or no-interest loans; and assistance with establishing and maintaining small eucalyptus woodlots. In return, the companies expect to harvest each plantation after a growing cycle of six years on the coast and seven years inland. There is little competition with food crops for land or labor.

The schemes were started as corporate social responsibility exercises, but the partnership is good business for the companies. Because the land is held under communal tenure, it would otherwise be unavailable for purchase or lease agreements. While the costs of administering the schemes per ton of fiber appear to be higher than those incurred from commercial plantations, the additional land rental fees associated with commercial land probably offset such costs. Furthermore, the outgrower system generates the fiber supply needed to maximize the economies of scale in the companies' pulp mills.

Because the farmers obtain cash income at harvest, trees are seen as a form of savings. Even highly vulnerable households are able to join the outgrower schemes if they have sufficient land. Outgrower schemes contribute 12 to 45 percent of the income needed for a household to remain above the "abject poverty line."

Source: *Mayers, J. and S. Vermeulen. FORTHCOMING. Company-Community Partnerships: From raw deals to mutual benefits? International Institute for Environment and Development, London.*

STRENGTHEN PRODUCER ORGANIZATIONS

Often, strong local producer organizations are needed. Commercial development can require producers to make capital investments, undertake processing activities, organize 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 organizations has been demonstrated by the business and environmental outcomes of the Proyecto de Conservación y Manejo Sostenable de Recursos Forestales (PROCYMAF) project in Mexico (Box 3).

Box 3 — Organizing Forest Communities in Mexico

In the early 1980s, indigenous communities in the poor, mountainous southern states of Mexico—angered by watching their forests degraded by outside loggers—formed a regional organization and succeeded in stopping the government from renewing timber concessions. Many of these communities went on to establish their own community forest enterprises. In 1997, the Proyecto de Conservación y Manejo Sostenable y Recursos Forestales (PROCYMAF), co-financed by the government and the World Bank, began to operate in the pine-oak forests of the state of Oaxaca.

The project works on a demand basis, assisting 256 communities to become more organized and build capacity. Communities that are not actively engaged in commercial forestry first develop land use plans and evaluate their land governance systems. Communities that are already engaged in forestry activities use project funds to either develop new management plans, establish new community protected areas, or explore new business or marketing options. Training courses regularly provide information about silviculture, management, and marketing of wood and non-wood forest products. The project has a separate component that involves private-sector consulting services for communities.

Since the project's start, the area under forest management has expanded from 500,000 to 650,000 hectares and total wood production has increased from 400,000 to 660,000 cubic meters annually. These communities currently sell their timber to a local door manufacturer at a premium of 15 percent. This new volume generates at least an additional $10 million in value annually. About 1,300 new permanent jobs in forest management and processing have resulted, and an additional 175 jobs have been generated in non-timber forest product activities including mushroom production and fresh water bottling. As a result, the state of Oaxaca is taking in an additional $1 million a year in tax revenue and communities' social expenditures, apart from salaries and wages, have increased at least $1 million a year.

Forests are also better managed. Some 13,500 hectares of permanent old-growth reserves have been established. Some 90,000 hectares have already been certified by the Forest Stewardship Council.

Sources: *PROCYMAF (2000). Proyecto de conservación y manejo sostenable de recursos forestales en México. Informe y avance 1998-2000. Misión de evaluación de medio terino. SEMARNAP, Mexico; DeWalt, B., F. Olivera and J. Betancourt Correa (2000) Mid-term evaluation of the Mexico community forestry projects. World Bank, Washington, D.C.*

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.[9] 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 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 specialization, 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 (Box 4). Third parties, such as conservation organizations, Non-Governmental Organizations (NGOs) and public forest agencies, have successfully brokered partnerships between large firms and small-scale producers.

Box 4 — First Nations of British Columbia Partner with Multinational Firm

Iisaak Forest Resources is a company owned jointly by the indigenous, or First Nations, populations of Canada's Clayoquot Sound and Weyerhaeuser Corporation's British Columbia Coastal Group. Iisaak is working toward an economically viable way of conserving and managing valuable coastal old growth forests that are not formally protected.

Iisaak, which now has tenure rights to 87,000 hectares of land, originated from an intense social conflict over industrial harvest in Clayoquot Sound's old growth forests. Widespread civil disobedience brought both logging and expansion of protected areas to a halt in 1993. In 1994-95, a scientific panel evaluated the rainforest ecosystem and identified uses consistent with conservation. In 1998, initiatives to develop a new joint venture began. The partnership took two years to develop, as confidence was established between the previously conflicting partners. Individuals deemed trustworthy by both sides took an innovative step by agreeing to share a single strategic planning office. The negotiations involved not only First Nations and Weyerhaeuser, but also local governments, the federal government, environmentalists and unions. A Memorandum of Understanding, eventually signed in 1999 with five major environmental NGOs, resolved the historic conflict while also respecting First Nations' traditional ownership of their territories, enhancing local sustainable development opportunities and providing stability for local communities. In 2000, the UNESCO Biosphere Program named the region a World Heritage Site. First Nations, who have majority ownership of Iisaak, consider this a step toward full government recognition of their territorial claims.

Iisaak has plans for three business segments. The commercial timber segment is producing high-quality cedar sawlogs for specialty products. Second, new businesses will be based on non-timber forest products, recreation and ecotourism. The third component will develop and market conservation values such as carbon storage and biodiversity habitat.

Source: *Baird, L. and L. Coady, 2000. A new economic model for conservation-based forestry in temperate old growth forests. Presentation at the conference "Developing Markets for Environmental Services of Forests", Forest Trends, British Columbia Ministry of Forests, University of British Columbia Faculty of Forestry, Vancouver, Canada.*

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; organizational 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 (Box 5). 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 organizations need training in community facilitation, technical forest management and marketing.

Box 5 — Venture Capital Firm Builds Sustainable Industry with Amazon Communities

Small and medium-sized Latin American companies are earning competitive profits while increasing biodiversity with the help of A2R's Terra Capital. The venture capital fund reflects a partnership between Axial RR of Brazil and GMO-RR of Boston. Investment areas include organic agriculture, sustainable forestry, non-timber forest products, ecotourism and bioprospecting. Several Terra Capital investments involve community-based forestry in the Brazilian Amazon—including a processing plant for heart of palm, a babaçu palm processing company and a large production and processing enterprise for certified sustainable softwood. A2R is committed to improving local livelihoods and conserving forest resources as part of its core business strategy. An interdisciplinary team of financial and technical specialists from A2R visits the enterprises frequently to provide business support.

For example, A2R acquired a financial interest in a heart-of-palm processing plant on a remote island in Marajo, in the state of Pará, which was suffering from unreliable raw material supply and poor management. A2R helped to resolve local land conflicts and to secure local rights for growing palm fruits, thereby ensuring a regular and secure source for the processing plant. Within three years, the enterprise achieved sales of US$4 million, supporting 100 factory employees and increasing incomes and assets for 5,000 families in one of the poorest parts of the Amazon. A2R also has helped local people produce the palm fruits more sustainably. They have begun to seek Forest Stewardship Council certification, which would establish the first certification for heart of palm in Brazil.

Source: *Moles, P., A2R, personal communication, 2000.*

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 efforts 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.[10] Clear tenure rights authorize 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.[11]

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 utilize 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.[12] 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 favor large-scale actors. Yet most governments subsidize 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), 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.[13]

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, democratization 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 commercialization 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 access 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 must 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 organizations; 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 organizations, and private financial and business service providers will necessarily play central roles. Business attention should be attracted first to the more promising sustainable forestry 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 organizations 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 organizations 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 analyze the financial and organizational 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. This 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.

This forest agenda requires enabling communities to use forest assets for economic development by building community enterprises and partnerships with industry. Additionally, challenging policies that restrict forest access and ownership will expand opportunities for low-income forest dwellers. Pursuing these actions will demonstrate the economic viability of sustainable forestry.

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 outgrower schemes in South Africa—illustrate the potential for investments in forest markets to benefit some of the world's poorest people.

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ACKNOWLEDGMENTS

The authors are enormously grateful for the extensive and thoughtful feedback on earlier drafts of this paper from Mike Arnold, Judy Baker, Brian Belcher, Gary Bull, Ken Chomitz, Carol Colfer, Arnoldo Contreras, Peter Dewees, Lynn Ellsworth, Ian Gill, Hans Gregersen, Marilyn Hoskins, Michael Jenkins, Owen Lynch, James Mayers, Augusta Molnar, Jessica Mott, Gerd Lange, Robert Nasi, N.C. Saxena, John Spears, Changjin Sun, William Sunderlin, Lini Wollenberg. Other colleagues generously shared their research materials, including Peter Bailey, Peter Banney, John Hudson, Elinor Ostrom, Natasha Landell-Mills, Mark Poffenberger and Katherine Warner. The useful comments of participants in seminars presented at the World Bank in December 2000 and October 2001, the East-West Center in March 2001, and the FAO Workshop on Forests and Poverty in September 2001 are also appreciated. Warm thanks to Chetan Agarwal, Alejandra Martin, Jessica Rice and Ben Dappen of Forest Trends, who provided excellent research assistance in preparing this paper. Any remaining errors of fact and judgment are our own. The authors and Forest Trends gratefully acknowledge The World Bank, Ford Foundation, The John D. Catherine T. MacArthur Foundation, SURDNA Foundation, Wallace Global Fund and the Rockefeller Brothers Foundation for supporting Forest Trends.

TABLE 1. MAIN MARKET OPPORTUNITIES AND POSSIBLE BUSINESS MODELS FOR LOW-INCOME FOREST PRODUCERS: A PRELIMINARY ASSESSMENT

Scale of potential market participation by poor producers in developing countries, by the year 2025:

* * * High (tens of millions);
* * Moderate (millions);
* Small (fewer than a million).

Potential for market participation to raise producer household income:

* * * Major income increases;
* * Moderate income increase;
* Mainly as supplemental income/safety net.

Low-Income Group	Main Opportunities Will Be Found Where:	Scale of Market Opportunity For Poor	Business Models	Potential to Raise Incomes	Examples
Community Forest Owners	Countries where public forest area for commercial use is limited and producers face low transport costs to major inland markets; humid, sub-humid areas, closed canopy forest, some woodlands	* *	Direct local sale of stumpage, logs, pole, fuel by community to national or international traders or loggers	*	Ejidos in northern Mexico's Chihuahua and Durango
			Contracts or agreements for wood-using companies to harvest wood from community forests	* *	Export of construction wood from Papua New Guinea
Public Forest Users	Countries with large public forests and weak public management capacity, or devolution to local governments; diverse forest types	* *	Local people produce wood in public forests, under co-management agreements, to sell to local traders or public agency	* *	Most public forest co-management programs in India and Nepal
Small-Scale Farmers	Forest-scarce inland regions with rapid income or population growth; humid/sub-humid areas	* * *	Farm forestry, products sold to local traders	* *	Eucalyptus farming in India [1]
			Farm forestry or outgrower schemes that directly link producers with large-scale sawmills, commodity wholesalers or final users	* * *	Match Company farm forestry scheme with 30,000 farmers on 40,000 hectares in Uttar Pradesh, India; Kolombangara Forest Products, Ltd. Informal sawlog grower scheme with 100 growers [2]
			Farm forestry, with cooperative wood marketing organization	* * *	Widespread in India, Philippines, Bangladesh, Nepal

TABLE 1A — COMMODITY WOOD (CONSTRUCTION GRADE, POLES, WOODFUEL)

Low-Income Group	Main Opportunities Will Be Found Where:	Scale of Market Opportunity For Poor	Business Models	Potential to Raise Incomes	Examples
Community Forest Owners	More secure tenure rights over forests with high quality timber, accessible at market prices and strong community organization, with marketing and management skills, mainly for export markets; mostly closed canopy forest in humid/sub-humid areas	* *	Communities sell stumpage or logged wood locally to traders (national or international)	*	Community forests in Oaxaca, Mexico [3]
			Communities actively market to international buyers	* *	Ecoforestry operations in Papua New Guinea [4]
			Forest communities manage timber in partnership with private company	* * *	Iisaak Forest Resources, Ltd. [5]
			Forest communities lease concessions to industry or government	* *	Community forests in Bolivia [6]; government loggers pay royalties to Pakistan community forests [7]
Public Forest Users	Co-management of public forests for high-value timber, promoted by local government or end users; mainly closed canopy forest in humid, sub/humid areas	*	Producer organizations manage public forest concessions	* *	National Council for Protected Areas in Guatemala, multiple-use zone of the Mayan Biosphere Reserve [8]
Small-Scale Farmers	Mainly in forest-scarce regions with growing incomes and demand for high-value products; good market access; areas with secure tenure; mainly in humid;/sub-humid areas	* *	Small farms or communities participate in outgrower or crop-share schemes with private companies to establish plantations of improved high-value timber	* *	Prima Woods project for teak production in Ghana [9]
			Farmers grow timber at low densities in agroforestry systems and remnant forest to sell cooperatively	* (*)	Philippines Agroforestry Cooperatives [10]

TABLE 1B — HIGH-QUALITY TIMBER (APPEARANCE-GRADE)

Low-Income Group	Main Opportunities Will Be Found Where:	Scale of Market Opportunity For Poor	Business Models	Potential to Raise Incomes	Examples
Community Forest Owners	Countries with most large forest areas under secure community ownership and with large pulp and paper or engineered wood industry; communities located near mills; humid/sub-humid areas	*	Joint ventures and leases with shared equity between industries and communities for pulpwood production	* *	Mondi pulp and paper company in South Africa's Eastern Cape provides technical assistance and start-up capital to communities organized in Common Property Associations [11]
			Leasing community forest land to private companies for pulpwood production	* *	Tasman Forest Industries in New Zealand leases land from 27 Maori groups on 11,000 hectares; landholders retain hunting/grazing rights [12]
Small-Scale Farmers	Densely settled, forest-scarce countries with large pulp and paper or engineered wood industry, and limited foreign exchange; farmers located near pulp mills; humid/sub-humid areas	* *	Outgrower arrangements: industry assists farmers to establish and manage pulpwood plantations in guaranteed supply contracts	* * *	Aracruz Cellulose "timber partner program" in Brazil [13]
			Farm forestry: farmers establish plantations with technical support from industry; sell output without purchase contracts	* *	ITC Bhadrachalam Paperboards, Ltd., integrated pulp and paper mill in Andhra Pradesh State, India [14]
			Land leasing by farmers to private companies for pulpwood production	* *	Jant Limited wood chipping operation in Madang, Papua New Guinea [15]

TABLE 1C — INDUSTRIAL PULPWOOD (FOR CHEMICALLY TREATED WOOD PRODUCTS)

Low-Income Group	Main Opportunities Will Be Found Where:	Scale of Market Opportunity For Poor	Business Models	Potential to Raise Incomes	Examples
Community Forest Owners	Forest communities with high capacity for natural forest management and marketing, that can achieve low certification costs	*	Forest communities selling stumpage or logs, who have established contracts or agreements with certified wood users or market intermediaries	* *	Certification of 53,000 hectares in the indigenous community of Lomerío, Bolivia [16]
Public Forest Users	Forest user groups with high capacity for natural forest management, mainly where forests have high biodiversity or carbon value and supportive public forest institutions	*	Long-term community concessions in public forests or co-management agreements involving established contracts or agreements with certified wood users of market intermediaries	* *	National Council for Protected Areas in Guatemala, multiple-use zone of the Mayan Biosphere Reserve [17]
Small-Scale Farmers	Farmer groups, mainly in humid/sub-humid regions, with high capacity for natural forest management and marketing, that can achieve low certification costs	*	Farm producer groups with established contracts or agreements with certified wood users or market intermediaries	* *	Klabin pulp and paper company of Brazil assists outgrowers to obtain certification and to supply local furniture company demand [18]

TABLE 1D — CERTIFIED WOOD

Low-Income Group	Main Opportunities Will Be Found Where:	Scale of Market Opportunity For Poor	Business Models	Potential to Raise Incomes	Examples
Community Forest Owners	NTFPs (from all types of forest) with high national or international demand that do not have domesticated substitutes are available; strong community organization, including a sustainable management or conservation plan for wild resources	* * *	Forest communities collect/grow, process and sell NTFPs to local processors or traders	*	Most NTFP producers
			Forest communities collect and sell NTFPs to processing and marketing collective or parastatal	*	Brazil nut producer organizations supported by the Rainforest Alliance [19]
			Forest communities contract to collect, process and sell NTFPs to private industrial processor or retailer	* *	Indigenous producers in Marajo Pará, Brazil, who collect heart of palm for local processing plant [20]
	Community with biodiverse forests and capacity to negotiate deals with private firms	*	Bioprospecting agreement between forest community and private company	*	Bioprospecting agreements with communities in Latin American rainforests [21]
Public Forest Users	Producer groups can obtain exclusive or guaranteed access to raw materials; NTFPs have high value; mainly national demand	* *	Groups collect/process and sell NTFPs to local processors or traders	*	Bamboo producers and artisan cooperatives in Andhra Pradesh, India [22]
			Groups collect NTFPs and sell to parastatal or collective	* *	Tribal Development Cooperative Corporation of Orissa, Ltd. In India [23]
			Groups contract to supply processor or retailer	* *	Rattan producers belonging to the Manipur Crafts Society of India [24]
Small-Scale Farmers	NTFPs have large, deep national or international markets with growth; no major economies of scale in production	* * *	Small farmers grow, process and sell NTFPs to local processors or traders	* *	Most small-farm NTFP producers
			Small-scale farmers grow and sell NTFP's to processing and marketing collective	* *	Many nationally and internationally traded domesticated spices, dyes, seeds, oilseeds, leaf for fodder, ornamentals
			Small-scale farmers grow and sell NTFPs through outgrower schemes or contracts with private industry	* *	Same as above

TABLE 1E — NON-TIMBER FOREST PRODUCTS

Low-Income Group	Main Opportunities Will Be Found Where:	Scale of Market Opportunity For Poor	Business Models	Potential to Raise Incomes	Examples
All Groups	Simple pre-processing to increase income/access markets by reducing waste, increasing quality or reducing transport costs	* *	Community or group enterprise	* *	Drying forest fruits to improve product quality, reduce pest loss or allow storage; chemically treat rattan to prevent fungal damage and staining [25]
	Simple tools, furniture, other basic commodities for poor consumers in growing rural or urban areas	* *	Community or group enterprise	* *	Small-scale processing firms in Africa [26]
	Sawmilling, in markets where large-scale, high efficiency mills do not compete (humid/sub-humid forest regions)	*	Cooperative community, farmer or group sawmill enterprise with identified buyers	* *	Small-scale logging in the Amazon [27]
	Finished processing, where commercial links can be forged with businesses serving higher-income consumers; groups with capacity for standardized, quality production	*	Forest community or farmer cooperative for sale direct to wholesalers/retailers	* * *	Community producers in Oaxaca, Mexico, selling finished wood products to the Puertas Finas Company [28]

TABLE 1F — FOREST PRODUCT PROCESSING

Low-Income Group	Main Opportunities Will Be Found Where:	Scale of Market Opportunity For Poor	Business Models	Potential to Raise Incomes	Examples
Community Forest Owners	In forest-rich regions with resources of very high environmental value (for biodiversity, tourism)	*	Business partnerships for nature tourism between forest communities and private companies or public agencies	* *	Agreement between the community of Zancudo and Transturi, a major ecotourism operator in Ecuador [29]
	In regions where forest ecosystem services are needed to reduce economically important types of degradation (esp. watershed protection)	* *	Direct payments to communities by governments, farmer groups, conservation agencies	*	New York City water; Perrier-Viettel [30]; Costa Rica farm payments [31]
	In forest-scarce regions with potential for rapid forest growth, or forest-rich regions threatened by rapid deforestation (carbon)	*	Direct or indirect payments to forest communities to sequester carbon, within a framework of emissions trading	*	Noel Kempff Project, Bolivia [32]
Public Forest Users	In forest-scarce regions where agency capacity to manage public forests for ecosystem services is weak or high-cost	*	Public forest dwellers or users compensated for managing or protecting public forest for ecosystem services	*	Financial payments to forest community households for forest protection in Vietnam [33]
Small-Scale Farmers	In forest-scarce regions, for environmental services and sites of high value to buyers (e.g., biodiversity corridors)	*	Private deals to provide highly valued ecosystem services	*	Payments to upstream forest landowners by Irrigator Associations in Cauca River, Colombia [34]
	In areas where forest ecosystem services are needed to reduce economically important types of degradation (e.g., forest buffers to reduce nutrient pollution)	* *	Direct payments to farmers by municipalities, farmer groups, or conservation agencies	*	Payments to control salinity in New South Wales, Australia [35]
	In regions with low forest cover and existing institutions to reduce transaction costs	* *	Direct or indirect payments to farmers to sequester carbon, within a framework of emissions trading	* *	Scolel-Te, Mexico forest carbon project [36]

TABLE 1G — PAYMENTS FOR ENVIRONMENTAL SERVICES

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