

The business side of sustainable forest management: Small and medium forest enterprise development for poverty reduction

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Indigenous peoples and peasant communities have long been managing tropical forests and have increasingly gained legal access to the resource base. Only recently, however, have they started to form small and medium forest enterprises (SMFEs) to add value to their timber and non-timber forest products (NTFPs). SMFEs represent a promising option for poverty reduction and forest conservation through sustainable forest management. Their development into economically viable businesses requires an enabling environment, in terms of laws and policies that promote legal access to the resource base, provide incentives for sound forest management, support increased value adding, and promote the formation of human, social, physical and financial capital for sustainable production of timber and NTFPs. This paper argues that there are still significant challenges to the development of viable SMFEs and that government and non-governmental agencies, as well as the SMFEs themselves and their business partners, have important roles to play in the process.

Policy conclusions

- Governments can play a critical role in building economically-viable SMFEs. They can start by granting and enforcing legal access to forest resources. Curbing illegal logging and unsustainable harvesting of NTFPs will reduce unfair competition. Simplifying bureaucratic procedures related to SMFE registration and operations can reduce costs and enhance value adding opportunities. Financial incentives, including tax breaks for start-up SMFEs, are an additional positive step. Domestic and/or green purchasing policies also have a role to play.
- SMFEs can improve their own competitiveness in national and international markets for forest-based products. Upgrading technical, business and financial capacities and creating special institutional arrangements for business management will add value to timber and NTFPs, reduce production and administration costs, facilitate new business partnerships, and provide a basis for negotiating more favourable terms of trade. The organisation of SMFEs into second-level business associations may accelerate the upgrading process.
- Business development services (BDS) for SMFEs require greater coverage and quality. Special emphasis needs to be given to the training and education of a critical mass of rural BDS providers. Market-based mechanisms for service delivery are essential to ensure the impact and sustainability of these services.
- Financial services are critical for the start-up and development of SMFEs. Specific credit lines and related services and mechanisms, such as public-private partnerships, need to be developed according to the needs and nature of SMFEs.
- Non-governmental organisations (NGOs) and development agencies can strengthen the existing capacities of SMFEs. Facilitating access to market and technical information is a priority. SMFE communication networks can be funded to improve information flows, stimulate community-company partnerships, and facilitate access to trade fairs and better articulation among technical, business development and financial services. Facilitating multi-stakeholder negotiations for better policies, improved business environments, and conflict management can help to address context-specific challenges. Support is often also needed to facilitate access to niche markets (e.g., for certified timber or fair trade NTFPs) and to improve marketing and negotiation skills. Clear labour division and alignment of delivery mechanisms are needed among NGOs, development agencies and commercial BDS providers.



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Introduction

The Millennium Development Goals commit most countries to halving global poverty by 2015. The stakes for meeting this goal are perhaps at their highest in forest-dependent communities in tropical countries, where poverty tends to be more pervasive and deeper than in urban and more favoured rural areas. According to the World Bank, approximately 90 percent of the poorest people rely on forests for subsistence and income. The development of small and medium forest enterprises (SMFEs) represents an opportunity for strengthening the livelihoods of these people and conserving the natural resource base through sustainable forest management and processing of timber and non-timber forest products (NTFPs). Local benefits from SMFE development may include wages and employment, profit sharing, capital accumulation, cultural and political empowerment, investment in public goods, and increased conservation of forest ecosystems through long-term sustainable management.

This paper focuses on SMFEs that extract, process and market timber products (logs or sawnwood) and/or NTFPs. Owners of SMFEs may include anything from a handful of founding members to hundreds of small-scale producers or community members. Most forest enterprises fall into the category of small and medium on the basis of their sales volumes, number of employees, and capital investments. They are legally organised as cooperatives, producer associations, or conventional firms. Access to forest resources may be collective or private. Usufruct rights, rather than land titles, are the dominant form of SMFEs having legal access to forest resources. Enterprise governance tends to be strongly influenced by local rules, practices and customs. SMFEs are typically located at or near the resource base, and pursue multiple objectives, including employment and income generation, distribution of dividends among stakeholders, community development, greater participation in political dialogue, and improved local safety nets. Where institutional environments and market conditions are favourable, SMFEs have actively engaged in value adding activities such as the production of sawn wood, finished wood products, processed NTFPs or ecotourism.

Several market trends favour the development of SMFEs and their successful positioning in supply chains for timber and NTFPs or in the tourism sector. Innovations in production technologies, as well as communication and information systems, can significantly improve the productivity and efficiency of small-scale forest operations. The growing scarcity of certain tropical hardwoods translates into higher prices for primary and secondary wood products. At the national level, there is growing demand for furniture, construction wood and certain NTFPs, such as bamboo, rattan and palm hearts. Internationally, SMFEs have benefited from expanding niche markets for timber and NTFP products, e.g., certified wood products, fair trade NTFPs, and bio-ingredients. Increased nature tourism has provided expanding markets for handicrafts and ecotourism. Greater awareness of traceability issues and forest certification provide new market opportunities for legally and sustainably produced wood, and the growing concern about climate change, watershed protection and biodiversity conservation has spurred the interest in ecosystem services and the need to pay for them.

However, most SMFEs have not been able to fully take advantage of these positive trends. Rather, they struggle to

advance beyond the start-up stage of business development, exhibiting low levels of output, productivity, value addition and profit. Overcoming these challenges requires concerted action and long-term investments among stakeholders, including the SMFEs themselves, their business partners (processors and buyers) and service providers, as well as government agencies and non-governmental organisations (NGOs). This discussion paper draws heavily on the experiences captured during the International Conference “Small and Medium Enterprise Development for Poverty Reduction: Opportunities and Challenges in Globalizing Markets” (Costa Rica, 23 to 25 May 2006), during which nearly 200 participants from 35 countries shared their experiences regarding the opportunities and limitations in the formation and development of SMFEs in tropical countries.

Community forestry goes business

Traditionally, approaches to forest sector development have favoured large-scale industrial promotion and capacity building for forest management, over the development of small-scale commercial forestry (Table 1). During the 1960s and 1970s, government policies concentrated on inducing growth through large-scale forest exploitation, coupled with increased investment in large-scale timber industries and, increasingly, plantations (see Zivnuska 1966). Few incentives existed for local development, and little consideration, if any, was given to institutional aspects or the building of local capacity for resource management or business development, resulting in failure in most cases. Criticism in the 1980s led donors and NGOs to promote greater involvement of local communities in the management of forest resources. Development interventions targeted technical approaches to reforestation and natural forest management. Following the sustainable development paradigm that was strongly promoted through the 1992 UNCED conference in Rio, conservation, along with economic and social development, began to figure prominently on donor and NGO agendas. Interventions focused on securing resource access and land tenure, decentralising decision-making in the forest sector, and improving local capacities for sustainable forest management.

Over recent years, a new approach has been emerging, focusing on SMFE development that leads to reduced poverty and increased economic incentives for sustainable forest management by forest-dependent people. In countries where communities and small producers have secure land tenure, including rights to harvest and sell forest products, SMFEs have emerged and developed. Mexico now counts hundreds of timber-based SMFEs, many of which have vertically integrated into milling activities (Antinori & Bray 2005). Guatemala’s Peten region has an active SMFE sector, with 11 of a total of 14 community concessions organised under the umbrella of a second-tier community forest enterprise (see Box 1). Case studies from Asia, Africa and Latin America also highlight the emergence of SMFEs in Bolivia, Peru, Ecuador, Nicaragua, Honduras, Burkina Faso, the Gambia, Nepal and Papua New Guinea (Klooster & Ambinakudige 2005, CATIE 2006). The continued success of this process will be determined by the ability and willingness of stakeholders to create an enabling political-legal framework,

Table 1 – Approaches to forest sector development, 1960s to 2000s

	1960-1970s: export-led growth	1980s: reforestation and food security	1990s: sustainable forest management	2000s: SMFE development
Main development focus	Capital accumulation through large-scale forest exploitation	Technical skills development for community forestry, reforestation and natural forest management	Social, environmental and economic dimensions of forest management	Increased income through environmentally sound and economically viable management of community and other forests
Principal stakeholders	Export-oriented timber industries	Community-based and industrial re-forestation projects	Forest-based communities and timber concessionaires	Forest-based communities, community forest enterprises, and concessionaires
Product and/or service focus	Precious woods	Fast-growing plantation species	NTFPs, lesser-known species (LKS) and precious woods	Precious woods, LKS, NTFPs, environmental services and tourism
Key drivers	Governments and development agencies	Development agencies and NGOs	Development agencies and NGOs	Businesses, NGOs and development agencies

Box 1: SMFE development in Peten, Guatemala

The Peten region of Guatemala had long been subject to illegal logging, widespread forest fires and disputes over the access to its timber and non-timber resources. The emergence of a social movement and increased environmental awareness led to the establishment of the Maya Biosphere Reserve in 1990. The multiple use zone of the reserve was opened up for a concession system under the condition that both industrial and community concessions became certified under the scheme of the Forest Stewardship Council (FSC). To date, two industrial and 14 community concession have been certified. The majority of the latter operate community-based sawmills for processing of precious woods such as mahogany and tropical cedar. In addition to these first-tier SMFEs, a second-tier enterprise has recently been established that offers access to a group certification scheme, machinery, and marketing services for certified precious woods and lesser-known species (LKS). In 2007, centralised processing facilities will be available for increased value adding. This process, promoted strongly by donor agencies and local NGOs, has led to increased sense of forest ownership, a drastic reduction of forest fires, and the generation of local employment and income (Carrera et al. 2006). Nonetheless, the recently established SMFEs face a series of challenges. Guatemalan legislation leaves them little alternatives but registering as an NGO or association, thus preventing them from accumulating capital or distributing profits among stakeholders (Nittler & Tschinkel 2005). Business skills at the level of both first and second-tier enterprises remain underdeveloped. The coordination between first and second tiers requires a clearer definition of mutual goals and better labour division; and operations need to become more diversified to reduce dependency on one or two high-value species.

Levelling the playing field

Despite the progress achieved in land tenure for communities and small producers, the overall political-legal frameworks in tropical countries do not favour the long-term development of SMFEs. Forest enterprises are forced to conduct business in a web of incomplete, unrealistic and often counterproductive regulations related to forest use, land tenure, conservation, business registration and operation, and international trade. These regulatory frameworks were designed mainly to reduce large-scale conversion of forests into other land uses and mitigate the environmental impact of forest exploitation, rather than promoting the development of community forestry and related value adding. Existing laws often limit or prohibit ownership or use of forest resources by local communities and small producers. SMFEs may be required to hire professional foresters to elaborate and execute forest management plans, incurring relatively high costs given their typically low production volumes. They may also need to seek approval from government agencies regarding their statutes and internal regulations that govern implementation and monitoring of their forest management plans. In some cases, appropriate forms of business organisation have yet to be developed that take into account the particular institutional arrangements of SMFEs and their pursuit of both social and economic objectives. SMFEs often have insufficient technical and financial resources and political connections required to effectively manoeuvre through the bureaucratic process or induce change in the political-legal framework.

The extent to which all these regulations are applied varies widely across countries, but generally speaking, forest management laws provide preferential access to large-scale forest enterprises or management operations over measures that promote SMFEs access to and use of forest resources

strengthen the technical, business and financial capacities of SMFEs, and orientate technical, business development and financial services towards the needs of different actors along forest-and-wood-product supply chains.

(Colchester 2006). Weak or selective enforcement of existing regulations has encouraged illegal logging and creates unfair competition for SMFEs. Domestic markets for timber and NTFPs are often flooded with illegal products, making legal products from SMFEs uncompetitive. Illegal activities, estimated at about 50-90% of the volume extracted, transported and traded in timber-rich countries such as Peru, Brazil, Indonesia and Cameroon, are often carried out with the connivance of local political and government agents (Contreras-Hermosilla 2003).

National governments can level the playing field by offering financial incentives for start-up SMFEs. Governments can also reduce the regulatory burdens on SMFEs or favour those with track records for sustainable forest management and, possibly, forest certification. In addition, governments can address regulatory issues related to land tenure clarification, export promotion, and the simplification of bureaucratic requirements for sustainable forest management and processing of forest products. Other promising options are green and social purchasing policies (buying forest products that originate from environmentally friendly and/or socially responsible SMFEs). The market can also be harnessed, for example, by introducing new or strengthening existing mechanisms of environmental service payments related to biodiversity conservation, watershed protection, carbon fixation and maintenance of scenic beauty through sustainable forest management.

Towards more competitive SMFEs

Creating an enabling political-legal framework is a necessary, but not sufficient condition, for SMFE development. Most SMFEs must overcome a series of internal weaknesses that limit their competitiveness in globalising markets for forest products (see Box 2). For example, their capacity to sustainably increase benefits obtained from the production, processing and commercialisation of timber and NTFPs, depends largely on their capacity to deliver quality products on time, in sufficient quantities and at competitive prices. SMFE leaders seldom have much experience in business management, accounting or marketing (see Antinori & Bray 2005, Nittler & Tschinkel 2005). In many cases, senior management posts are occupied by members of the board of directors, rather than professional managers. As these posts rotate every few years, skill development and learning curves are zigzagged, often resulting in economic and other losses caused by improper management decisions. Most SMFEs exhibit limited strategic business planning and communication skills, both of which are essential for establishing and maintaining mutually beneficial business partnerships with other actors along the supply chains, including specialised processors and buyers.

Achieving significant economies of scale is critical to reducing costs, as well as achieving efficient business management and sound production practices. Second-tier enterprises can facilitate increased economies of scale through collective (centralised) processing, marketing and certification efforts and increase access to services for SMFE development. The development of a second-tier enterprise in the Peten region

Box 2: SMFE development in Uganda

Uganda counts some 2,500 SMFEs. They cover a wide range of productive activities from timber and NTFP production and processing to the supply of environmental and recreational services. Despite adverse enterprise development conditions, Ugandan SMFEs have managed to grow and develop by responding to market opportunities (e.g., the Uganda Community Tourism Association finances training in craft-making using forest products) and influencing policy (e.g., the Uganda Wood Farmers Association successfully sued the Uganda Investment Authority over the planning of an industrial park overlaying members' land). Recent studies highlight the various lessons learned in SMFE development in Uganda (Kazooru et al. 2006):

- It may be opportune to choose SMFE leaders with a history of community activism and leadership during the initial stage of enterprise development. Good procedures must evolve to avoid over-reliance on charismatic leaders, as they may reflect a strong backing by the community but limited business skills.
- Effective enterprise governance is critical for SMFE survival and growth. For example, nearly 90% of successful Ugandan SMFEs keep accounts and make them available to members.
- Clear rules can stop free-riding and avoid damaging splits. The fate of the Ugandan Forest Industries Development Association is a prominent example in this respect, as specialised external support has made a difference by offering information support, training, networking opportunities and finance.
- Overdependence on donor-provided support services can be detrimental. This has been experienced, for example, by the Northern Uganda Shea Producer's Association when USAID withdrew its support in 2000.

of Guatemala provides an example of what can be achieved in a relatively short period of time. The long-term success of second-tier SMFE organisational structures will depend on addressing the internal conflicts over economic and social objectives that can arise between first- and second-tier SMFEs. Trade-offs exist between employment generation at the level of forest-based, first-tier SMFEs and increased productivity and efficiency through centralised processing by second-tier SMFEs. If not adequately addressed, these internal conflicts (e.g., profits versus employment or social investments) can result in increased production and administration costs and lost opportunities for value adding.

Strategic alliances between SMFEs and downstream buyers and processors can increase SMFE benefits through benefit/risk sharing mechanisms, increased value adding opportunities, and access to market information and buyer-provided ('embedded') technical, business development and financial services. For downstream buyers and processors, partnerships with SMFEs can facilitate their access to specific (e.g., certified) raw and semi-elaborated products, demonstrate corporate social responsibility, and reduce transaction costs over the long-term. Most SMFEs will require access to fully or partially-subsidised technical, business development and financial services for

establishing and maintaining mutually-beneficial alliances with buyers and processors (see Box 3). Increased utility derived from these services can be reinvested by SMFEs to strengthen their human resources and infrastructure. These investments will promote a long-term business model that is ever more self-sufficient.

Box 3: Facilitating SMFE organisation in Laos PDR

The successful organisation SMFEs requires careful planning, taking into account local resources, the market, and the political-legal framework. In Laos PDR the Market Analysis and Development (MA&D) methodology (FAO 2000), was used in 6 forest-dependent communities during 2005-2006. The MA&D implementation process guided community members and the service providers in identifying local resources and capacities, viable market opportunities for existing products, key elements of the political-legal framework, and their need for technical, business development and financial services. The following results were obtained:

- Establishment of 10 SMFEs (involving 240 people), creating employment and income for local residents
- Cash income earned from the SMFEs ranged from US\$ 5 to \$70 per household (based on 6-month period), part of which was reinvested in the enterprises
- Revolving community development funds were established providing affordable financial services for SMFE development.

For more information on MA&D, visit: www.fao.org/forestry/site/25491/en

Unfortunately, service providers, such as government agencies, NGOs, projects, consultants and private businesses, have tended to focus their efforts on building technical capacities of SMFEs for forest management and conservation and, more recently, for the processing of timber and NTFPs. Relatively little attention has been paid to services that promote business development and supply chain integration. Specialised business development services (BDS) are required for local institutional strengthening and capacity building in business administration, market analysis, strategic planning and business leadership. Market-based delivery mechanisms for business development services can increase the quality and coverage of services available to SMFEs. Their implementation will require significant investments on both the demand and supply sides. On the demand side, for example, SMFEs will need to increase their willingness and capacity to pay for services, as well as increasing their awareness of the services required for long-term SMFE development and their response capacity to take full advantage of such services. On the supply side, there is the need to strengthen the capacities of a critical mass of service providers to respond effectively to the demands and needs of SMFEs. Training and post-graduate programs for BDS providers have been established in Latin America, for example, by regional or international institutions such as CATIE, CIAT and INCAE Business School.

Providers of financial services have been reluctant to offer services because of the real (or perceived) high risks involved in SMFE development. Perception of high risk stems from the remoteness and isolation of many SMFEs, the cumbersome

political-legal frameworks in which they operate, and their limited possibilities for insurance against risk (collateral), in addition to poor understanding of forest product markets and related opportunities and risks. Public-private partnerships can help to overcome some of the challenges in financial service markets. Given their shared interests in forest conservation through sustainable forest management and community-based value adding, some governments and international organisations have worked directly with SMFEs to provide financial services. In the case of Peten, Guatemala, a grant of US\$ 270,000 from government funds was provided for developing centralised processing facilities for primary and secondary transformation of lesser-known and high-value timber species.

The way ahead

Overcoming the challenges facing SMFE development requires concerted action by the various stakeholders. The following recommendations emerged from the 2006 international conference on SMFE development in Costa Rica.

SMFEs need to:

- seek out new business opportunities and acquire the capacities to initiate new business models and form mutually beneficial partnerships with other businesses along the supply chain, including processors and traders;
- invest in associations that unite SMFEs for increased economies of scale in processing and marketing, and greater bargaining power;
- foster alliances – with technical, business and financial service providers – that help to overcome in particular the challenges during the critical start-up phase: good allies provide services that have an impact on the bottom line and promote strengthened rural livelihoods among community members; and
- ensure that productivity and efficiency receive at least as much attention as social and environmental goals through the development of specific institutional arrangements for business management at the community level and among SMFEs.

Service providers and NGOs need to:

- broaden support to include services that effectively promote business development and supply integration;
- assist SMFEs in formulating their demands for technical, business and financial services, through a process of awareness raising, critical self-assessment, negotiation and mutual trust building;
- identify and strengthen core competencies and establish partnerships with other service providers and businesses that can provide complementary services;
- promote market-based approaches to the delivery of technical and business development services by designing and implementing effective cost/benefit sharing mechanisms with SMFEs;
- make credit accessible to SMFEs: expand the range of credit and saving products available, explore the potential of public-private partnerships regarding investments in SMFEs, and take measures to reduce transaction costs, for example,

by allowing for alternative forms of collateral, improving management information systems, and reducing excessive paperwork.

Governments and international organisations need to:

- create an enabling environment for SMFE development: clear tenure rules, simple business registration and export procedures, and accessible tax and financial incentive schemes;
- facilitate information flows along supply chains, and trade fairs for speciality timber and NTFPs;
- foster market-based approaches to service delivery through innovative payment mechanisms (e.g. vouchers or co-funded measures) and upgrading the capacities of service providers to identify and respond to the needs of SMFEs;
- promote increased cooperation among individual service providers for increased impact;
- facilitate multi-stakeholder platforms for facilitating conflict management and community-company links;
- promote communication platforms and networks among SMFEs, providers of technical, business development and financial services, and other actors along the supply chain;
- support research for increased understanding of successful cases and sound practices of SMFE development, the underlying critical success factors, and the potential for scaling up.

Ideally, multi-stakeholder negotiations and agreements necessary to effectively promote SMFE development would not take place in isolation, but rather as part of broad-based strategy for reducing poverty through the development of rural

and urban-based small and medium enterprises and their successful integration in national and international supply chains for agricultural and forest products. Similarly, nature-based small and medium enterprises should be promoted in the tourism and related sectors. These enterprises consider sustainable natural resource management and social and corporate responsibility not as buzzwords, but as integral elements of SMFE business development strategies.

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For more information about the International Conference on Small and Medium Forest Enterprise Development for Poverty Reduction: Opportunities and Challenges in Globalizing Markets, held in Costa Rica, 23 to 25 May 2006, visit: www.catie.ac.cr/econegociosforestales/conference and www.fao.org/forestry/site/35689/en.

For more information on activities related to SMFE development, please visit:

- *EcoNegocios Forestales – Forest EcoBusiness: www.catie.ac.cr/econegociosforestales*
- *Food and Agriculture Organization of the United Nations (FAO): www.fao.org/forestry/site/25491/en*
- *IIED's Forestry and Land Use Programme: <http://www.iied.org/NR/forestry/index.html>*



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References

- Antinori, C. & Bray, B. (2005) 'Community Forest Enterprises as Entrepreneurial Firms: Institutional and Economic Perspectives from Mexico'. *World Development* 33 (9): 1529-1543.
- Carrera, F., Stoian, D., Campos, J.J., Morales, J. & Pinelo, G. (2006) 'Forest Certification in Guatemala'. In: Cashore, B., Gale, F., Meidinger, E. and Newsom, D. (eds) *Confronting Sustainability: Forest Certification in Developing and Transitioning Countries*. Yale School of Forestry and Environmental Studies, New Haven, CT, pp. 363-406.
- CATIE (2006) *Proceedings from the International Conference 'Small and Medium Forest Enterprise Development for Poverty Reduction: Opportunities and Challenges in Globalizing Markets'*. May 23-25, CATIE, Turrialba, Costa Rica. Available on line: http://cecoeco.catie.ac.cr/Magazin.asp?codwebsite=3&CodSeccion=120&MagSigla=MEN_U_INFOR_ENG
- Colchester, M. (2006) *Justice in the Forest: Rural Livelihoods and Forest Law Enforcement*. CIFOR, Bogor, Indonesia. Available on line: www.cifor.cgiar.org/publications/pdf_files/infobrief/010-Infobrief.pdf
- Kazoora, C., Acworth, J., Tondo, C. and Kazungu, B. (2006) *Forest-based Associations as Drivers for Sustainable Development in Uganda*. Sustainable Development Centre and IIED, London, UK.
- Klooster, D. and Ambinakudige, S. (2005) 'The Global Significance of Mexican Community Forestry'. In Bray, Merino-Pérez, Barry (eds) *The Community Forests of Mexico: Managing for sustainable Landscapes*. The University of Texas Press, Austin, Texas.
- Macqueen, D., Bose, S., Bukula, S., Kazoora, C., Ousman, S., Porro, N. and Weyerhaeuser, H. (2006) 'Working Together: Forest-linked Small and Medium Enterprise Associations and Collective Action'. *IIED Gatekeeper Series* No. 125. IIED, London, UK
- Nittler, J. & Tschinkel, H. (2005) *Community Forest Management in the Maya Biosphere Reserve of Guatemala*. Report prepared for USAID, Washington, D.C.
- Zivnuska, J.A. (1966) *The Integration of Forest Development Plans and National Development Plans: How to Make the Forestry Case at the National level*. Proceedings of the 6th World Forest Congress, Madrid.