

## **Poverty Reduction in the Forestry Sector: Timber Harvesting and Wood Processing—the Answer to Rural Poverty?**

**Regan Suzuki, Patrick B. Durst, and Thomas Enters<sup>1</sup>**

### **Introduction**

The Millennium Development Goals agreed to by 189 nations at the United Nations Millennium Summit in 2000 call for the eradication of extreme poverty by 2015, while simultaneously ensuring environmental sustainability. As millions of rural poor people live in and around forests, it is becoming increasingly pertinent that thought be given to the role that forestry might play in contributing to the goal of poverty reduction. In addition to improving our understanding of the linkages between economic well-being and forest use, new strategies and approaches are needed to identify and leverage opportunities for the poor to benefit more from forests. There is a burgeoning interest in the potential role of forestry and forests in poverty reduction. This paper contributes to the growing body of literature and echoes earlier findings that acknowledge the potential for pro-poor forestry, but similarly cautions that its contributions are case-specific, rarely major, and countered with a host of potential pitfalls.

In most forests, timber is currently the resource of greatest commercial value. At the global level in 2000, the (formal) forestry sector employed 12.9 million people, generated US\$354 billion in value added and exported products with a total value of US\$144 billion (Lebedys 2004). Employment in the informal sector was “guesstimated” at 30 million. The World Bank estimates that almost 70 million people live in remote areas of closed tropical forests, with another 735 million people living in or near tropical forests (Chomitz et al. 2007).

Forest harvesting and wood processing are seldom considered at the forefront of poverty alleviation strategies. There are a number of reasons for this. Modern forest harvesting and processing are highly capital-, skill-, and technology-intensive operations, effectively precluding those without ready access to capital, technology, and specialized skills. Secondly, the large potential profits to be made have led to the sector being dominated by powerful individuals and corporations. Thus, the poor are often excluded from the timber sector by policies and regulations that hinder their access to timber resources and marketing. In recent years, where efforts have been made at forest-based poverty reduction, the strategies have largely focused on participatory forest management approaches (e.g. community forestry, community-based forest management, joint forest management) and the development of enterprises that process and market nonwood forest products (NWFPs). The more lucrative, aspects of forest harvesting and wood processing have received little attention, as vested interests have been able to keep poor people from rich resources.

There has been lasting apprehension among policy-makers and the public that allowing the poor to access and use forests will result in forest degradation or destruction (Scherr et al. 2004). Consequently, poor people living around forests have been first in the line of fire for restrictive and punitive government measures on forest use. Given that the use of forest products by rural communities is often a livelihood strategy of “last resort” (Byron 2006), at least by the extremely poor, such measures effectively undermine poverty-reduction strategies

---

<sup>1</sup> The first two authors are Associate Consultant and Senior Forestry Officer with the FAO Regional Office for Asia and the Pacific, Bangkok, Thailand. Thomas Enters is an independent forestry consultant.

and exacerbate existing conditions of poverty. One might argue that such measures are inherently anti-poor.

Not surprisingly, therefore, only limited numbers of poor living in and around forests are currently benefiting from timber harvesting and wood processing. However, examples of sustainable forest use by local people with potential implications for the reduction of poverty are increasing in number and are beginning to generate interest.

This paper draws upon several case studies from the Asia-Pacific region involving timber harvesting and wood processing as presented at the October 2006 Ho Chi Minh City conference on “Managing Forests for Poverty Reduction: Capturing Opportunities in Forest Harvesting and Wood Processing for the Benefit of the Poor.” It explores the potential for, and challenges of, poverty reduction through involving local people in the financially more lucrative business of harvesting timber and wood processing. Four case studies from Nepal, Papua New Guinea (PNG), the Philippines, and Viet Nam are discussed and their experiences with small-scale forest enterprises are assessed from a poverty-reduction perspective.

## **Key Concepts**

### **The Poverty-reduction Objective**

The extreme poor (at around 1 billion) and the poor (another 1.5 billion) make up around 40% of humanity (Sachs 2005). As poverty affects so many people, it is crucial to have a common understanding of what is meant by poverty and poverty reduction. This is not simply a matter of semantics. The implications of being poor and of being the target for poverty reduction extend beyond academic discourse and drive policies that all too often favor privileged individuals and groups at the expense of the truly poor.

There has been an increased call for the poverty reduction-forestry nexus to be seen through a *pro-poor* rather than *forestry* lens (see Hobley 2007). This approach has been based in part on the work of Amartya Sen in calling for a more differentiated view of poverty:

*A small peasant and a landless labourer may both be poor, but their fortunes are not tied together... we have to view them not as members of the huge army of ‘the poor’, but as members of particular classes, belonging to particular occupational groups, having different endowments, being governed by rather different entitlement relations. The category of the poor is not merely inadequate for evaluative exercises and a nuisance for causal analysis, it can also have distorting effects on policy matters (Sen 1981: 21).*

Homogenizing the poor has been strongly criticized as such a perspective not only fails to enhance our understanding of the structural causes of their poverty, but may result in counterproductive interventions and unintended, mostly negative, outcomes. Perhaps one of the most useful frameworks through which to conceptualize poverty is that developed by the Department for International Development, India (Loughhead et al. 2001).<sup>2</sup> This framework is based on the assumptions that:

- A continuum of vulnerability, poverty, and wealth exists along which different people move at different points in time
- Local social and political relations are important in access to natural resources and reflect and determine people’s capabilities for social action

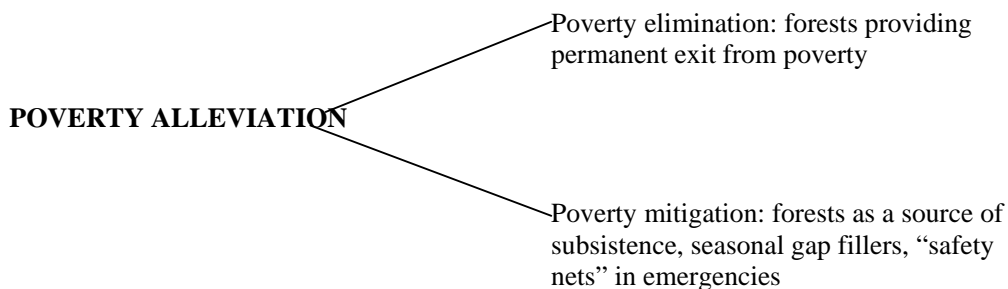
---

<sup>2</sup> This framework was further elaborated by Brocklesby (2004) and Hobley (2007).

Within this spectrum of poverty, we find groups of particularly acute vulnerability such as the chronically poor (including the elderly, orphans, widows, and the disabled). Where their capacity to access other forms of support is limited, government assistance is often the only resort. Yet, it is likely that these are the same groups of people least able to influence government decision making and ensure accountability and transparency. This is where the role for external actors as social agents on behalf of vulnerable groups becomes critical (Wood and Salway 2000).

In considering poverty alleviation, Sunderlin (2004) distinguishes between “elimination,” “avoidance,” and “mitigation” (Figure 1). This is important given the lack of success that conventional development initiatives in many developing countries have had in direct poverty reduction. For example, NWFPs and their development are supportive of subsistence livelihoods, act as seasonal gap fillers, and provide a safety net during emergencies. They are of significant importance to many poor people living in and around forest. Yet, while contributing to poverty mitigation, they have failed to contribute to poverty elimination and the socio-economic advancement of the poor (Neumann and Hirsch 2000). The question is whether strengthening the involvement of local people in forest harvesting and wood processing can be more pro-poor by contributing significantly to poverty elimination.

**Figure 1: Definitions of Poverty Alleviation and Examples Related to Forests and Forestry**



Based on Sunderlin (2004).

This paper differentiates between the various forms of poverty alleviation and defines “poverty reduction” as being synonymous with “poverty elimination” and the lifting of people from the condition of being chronically poor. Where there is not a sustainable improvement in the economic well-being of the poor (using the standard measure of less than US\$1 (PPP)<sup>3</sup> per day per person) over time, then the authors of this paper argue that poverty reduction has not been achieved and forestry has been unable to lift the poor out of poverty.

---

<sup>3</sup> Purchasing Power Parity.

## **The Role of Forestry and Forests in Poverty Reduction**

The contributions of forests to poor people's livelihoods go largely unrecorded in national statistics. This is due mainly to the role of forest products in subsistence economies and the informal sector, from which reliable and quantified data are inherently difficult to obtain. There are three ways in which forests contribute to poverty reduction (FAO 2003):

- 1) By providing the forest resources that are important for maintaining well-being (e.g. medicinal plants, food resources, erosion control)
- 2) Through continued access to forest resources and rents (e.g. access rights, income from forest products)
- 3) By increasing forest production values (e.g. payment for environmental services, recreational uses)

Timber harvesting, processing, and marketing (i.e. the timber-value chain) are generally not viewed as activities that support poverty reduction, although they provide millions of jobs. In addition to these activities being the traditional domain of large-scale commercial interests, various constraints limit the participation of rural communities in these activities. Barriers that restrict access to forest resources, such as lack of secure, long-term tenure and lack of knowledge and limited access to appropriate technologies, make it difficult for the poor to be in the "driver's seat" of commercial timber exploitation. More often, the poor are a source of inexpensive labor for forest operations managed by the state or commercial ventures, although the income generated by forest operators and people working in the formal sector should not be belittled. However, initiatives involving the rural poor are emerging and can provide important insights into how rural groups approach the opportunities and challenges inherent in operating a commercial timber enterprise, and more importantly, whether the approaches contribute to poverty reduction. In the next section case studies illustrating these themes from PNG, the Philippines, Nepal, and Viet Nam will be explored.

## **Case Studies from the Asia-Pacific Region**

### **Forestry as a Second Choice: Eco-forestry in Papua New Guinea<sup>4</sup>**

Forestry in PNG has been dominated in recent years by the issuance of commercial logging permits that have been negotiated with customary landowners, allowing large foreign companies to exploit more than 3 million hectares of the total forest area. These agreements often stipulate the provision of royalty payments to customary landowners, and the construction of roads, aid posts, and other amenities. In reality however, the gap between expectations and actual delivery has been wide. Logging concessionaires are frequently accused of practicing unsustainable industrial logging, with limited benefits accruing to the communities.

The Eco-Forestry Program in PNG and its predecessor, the Islands Region Environment and Community Development Programme (IRECDP), attempted to offer alternative models of forest use that were both sustainable and provided real benefits to local communities. Some of the resulting benefits from the Eco-Forestry Program have included: increased self sufficiency through the building of aid posts, class rooms, and the construction of meeting halls. Income from the sale of timber has also been used to subsidize the health-care expenses of community members. Funds generated through the program have been reinvested in additional income-generating enterprises, particularly coffee, cocoa, vanilla, and palm oil production.

---

<sup>4</sup> Based on Akivi (2007).

The Eco-Forestry Program originally comprised three components: field and marketing components based at program headquarters in Kimbe, West New Britain, while the policy component was based in Port Moresby. The program was administered by the Forest Authority of PNG, with a total budget of €7.5 million (approximately US\$10 million). Within the program, six options were implemented. Two of these, the Walindi and Multifor schemes, relate directly to the original objective of managing natural forests. The Walindi scheme experienced problems with financial viability attributed to limited availability of resources, low levels of education and literacy of community members and difficulties resulting from cultural differences. The Multifor scheme was developed to address some of the financial shortcomings of the Walindi scheme by increasing available forest areas, thereby increasing the supply of timber available for mechanical harvesting and extraction. On paper, the Walindi and Multifor schemes were financially viable, but this viability did not necessarily translate into tangible success. However, the wider social and economic benefits experienced (service buildings constructed, clean water supplies built, long-term conservation, capital for alternative agriculture, etc.) were seen by the program to outweigh the marginal financial viability.

The inconclusive sustainability of the program typifies a theme running throughout the case studies presented here; the role of external support. The extensive support, in this case from the European Union, clouds the real economic efficiency of the program and its overall financial sustainability. In contrast with the Nepal case, where external support appears to have been critical to the success of the small-scale forestry enterprises, in PNG the external assistance may even be prolonging an initiative that does not have sufficient local buy-in to survive independently.

On the issue of resource sustainability, the forest management and utilization strategies of the Eco-Forestry initiatives are considered low impact and generally sustainable ecologically. However, once operations moved to less accessible areas, the financial benefits ceased to outweigh the labor costs and timber extraction diminished over time. By the time this happened, the communities had reached most of their immediate objectives by becoming cash crop producers, thus relying less on timber extraction for livelihoods. Concurrently, the community felt less urgency to sell timber, resulting in greater forest conservation and the achievement of another community objective: preventing forest exploitation by outsiders. This tendency can be understood within the “safety net” context with the rural poor relying on forests for livelihoods only during emergencies and when other income-generating options are limited. Forestry in this sense is effectively a second-best option only.

A number of constraints were encountered in this case. First, was the tendency of communities to maximize short-term profits, rather than developing sustainable long-term strategies? Limited community trust or “social capital” contributed to this rather short-term approach to community forestry.

A second significant constraint to eco-forestry in PNG is that vested interests in the logging industry are opposed to the community-based approach, as it cuts into their profits. There have been allegations that large-scale logging companies employ consultants ostensibly to undermine the perceived value of community forestry by the public. So far this disinformation campaign has had some success, in that the establishment of the Eco-Forestry Branch within the PNG Forestry Administration has been delayed indefinitely—despite approval by the National Forest Board. Supportive individuals within the PNG Forestry Administration have been struggling to overcome this resistance.

Finally, the biggest constraint with respect to the marketing and sale of eco-forestry timber was to supply products of sufficient quantity and quality to interested buyers. There is a small group of overseas buyers who know the PNG market and are prepared to purchase certified timber of reasonable quality. Producers could sell as much timber as they produce, but

currently are neither capable of meeting minimum quality control standards nor supplying finished products in sufficient quantities to develop a steady trade.

## **Complex and Overregulated Environments: The Philippines<sup>5</sup>**

The Community-Based Forest Management (CBFM) program, which in principle sanctions sustainable timber harvesting by local communities for commercial purposes, was launched in 1995. CBFM has been strongly supported by international donors, nongovernment organizations (NGOs), and other concerned stakeholders. Unfortunately, however, the poverty-alleviation, community empowerment, and environmental management objectives of the CBFM program have yet to be realized, except in a few locations.<sup>6</sup>

At first glance, community forestry in the Philippines would appear to offer much promise in alleviating poverty. At market values of around US\$60/m<sup>3</sup>, the production forests comprise a natural resource asset worth more than US\$13 billion.<sup>7</sup> Drawing on this huge asset, two-person teams using manual saws can generate a potential daily income of US\$7.50/person/day. The current average income per family in rural upland communities of the Philippines is less than US\$2/day. Thus, timber harvesting by communities in second-growth forests has the potential to more than double rural family income.

On the ground, however, there is a widely-held, mistaken perception that forest management cannot be implemented effectively in the absence of large-scale investment in machinery and sophisticated technical expertise. As a result, a number of Government planners, decision-makers, and financial managers question that CBFM is a worthwhile strategy. Consequently, support for CBFM is often weak. In addition, distorted media reports, coupled with strident advocacy by some NGOs, have led many to associate any kind of forest harvesting with total deforestation and environmental degradation. Furthermore, CBFM is hampered by the resistance to change among many professional foresters and forestry agencies. While often agreeing in principle that communities can, and should, have a major role in forest management, in practice this has been little more than “lip service” with few initiatives aimed at the meaningful involvement of local communities in production forestry with the potential to generate tangible financial benefits.

In practice, people’s organizations (POs) implement CBFM through CBFM agreements with the Department of Environment and Natural Resources (DENR). The POs are required to prepare detailed forest management plans wherein the annual allowable cut (AAC) is determined on the basis of prescribed inventory procedures and formulas. Communities have little choice other than to seek assistance from professional foresters familiar with Government standards for the preparation of such plans. In this sense, community involvement is curtailed and real scope for community empowerment is restricted.

Transport regulations create additional problems. Communities are required to obtain permits for moving timber from the forest to the roadside and additional permits to transport timber to buyers. At first glance, compliance with these rules would seem to be a simple matter. However, agencies authorized to issue permits are many kilometers away from the forest. Each time a community requests issuance of a permit, someone from the village must travel to the office of whoever has authority to sign a permit, hope the person is available, and facilitate their travel to the production site. Bureaucratic delays are inevitable and are compounded by the need to travel back and forth several times, which is time consuming and costly.

---

<sup>5</sup> Based on Dugan and Pulhin (2007).

<sup>6</sup> See Borlagdan et al. (2001); Pulhin (2005); Pulhin et al. (2007).

<sup>7</sup> Bagong Pagasa Foundation. 2006.

Tree farmers who develop plantations on their own private lands have complained bitterly about the need for transport permits. Regulations originally intended for natural forests are being imposed on planted timber. This has led to a proliferation of check points, ostensibly to prevent transport of illegally cut logs. In theory, tree farmers are required to present a transport permit at each checkpoint. In practice, the persons manning checkpoints often waive this requirement after demanding and receiving unofficial payments.

Legislation was introduced in the Philippine Congress more than 10 years ago to streamline and update forest policies, rules, and regulations. But the drafting of innovative and facilitating legislation has lain dormant. More recently, the Society of Filipino Foresters (SFF) drafted legislation doing away with transport permits for timber grown on private land. This proposal is also languishing in Congress.

Capping the above problems is that the CBFM Agreement does not provide POs with assurances to harvest timber and financial benefit. In principle, the agreement entitles the PO to occupy, possess, utilize, and develop the forest lands and resources and claim ownership of introduced improvements in the area. In reality, however, the permit for timber utilization, or Resource Use Permit (RUP), is withheld or cancelled by the Government unilaterally at any time. In 1999, 2003, and 2005, three separate DENR Secretaries suspended RUPs nationwide due to alleged violations of some POs. Investigations of these cases revealed illegalities of only a few POs, and these were often carried out in collusion with DENR field personnel.

The greatest blow to CBFM however, took place in 2005 when the former DENR Secretary cancelled around 1,200 of the more than 1,500 CBFM Agreements nationwide without due process. Fortunately, implementation of the cancellation order was halted by the new Secretary due to pressure from civil society organizations and legislators the following year. The propensity to order wholesale cancellations remains a threat to the sustainability of CBFM and its potential to help reduce poverty in the Philippine uplands.

The factors outlined above as limiting forestry's real contributions to rural poverty reduction are key challenges that are at various stages of being addressed in the Philippines and other countries in the region. CBFM has been championed as a major paradigm shift in Philippines' forest management from a centrally controlled approach benefiting the privileged few towards a more participatory "people-oriented" strategy. While most of the original old-growth forests of the country have been lost or degraded, the remaining second-growth forests still present a rich natural resource that could theoretically be used by upland communities commercially on a sustainable basis. However, despite the potential of community timber harvesting to reduce rural poverty, the burdens of complex procedures and overregulation continue to obstruct the realization of this potential.

### **External Support: Parbat and Myagdi Districts, Nepal<sup>8</sup>**

The following two cases from Nepal examine small forest-based enterprises (SFBs); one a furniture-making enterprise, located at the Bharkhore Community Forest User Group (CFUG) in Parbat District, and one an Agricultural Implements Production Enterprise (AIPE) located at the Ghorlas CFUG in Myagdi District. Both of these SFBs were initiated by CFUGs as a deliberate poverty-reduction strategy, linking community forestry directly with forest product processing. The case studies assess to what extent they achieved this goal and the enabling and constraining factors encountered.

---

<sup>8</sup>Based on Acharya and Acharya (2007).

In Parbat, the furniture enterprise was established in 2004. The initial investment of approximately US\$780 was made with a bilateral NGO, the Livelihoods and Forestry Programme (LFP)<sup>9</sup> contributing US\$480 to this total. The grant supported the purchase of wood-processing equipment including a small circular saw, planer, and electric motor. The CFUG complemented this with US\$135 in the form of an interest-free loan and wood supplies equivalent to US\$80 to cover enterprise start-up costs. The remaining US\$80 was supplied by the entrepreneur households themselves. The average annual maintenance costs of the enterprise during 2004 and 2005 were about US\$270, including the land lease, electricity charges, and workshop maintenance.

The Parbat enterprise has generated year-round employment for four individuals from within the community and for an additional skilled worker from outside the community. The LFP start-up subsidy allowed income to be realized immediately and to rise dramatically. Average monthly income for the four employees (effectively a household endeavor) for 2004 and 2005 was US\$135. This translates into an annual income of US\$1,620 or more than US\$6,300 (adjusted for PPP). This provides a daily household income of US\$17, which is clearly above the extreme poverty line of US\$1 (PPP), assuming that the household size does not exceed more than 17 family members. It appears that for the employees, the enterprise is clearly contributing to poverty elimination.

In the second case of Myagdi, farmers with traditional tool production skills from four households were identified and encouraged to engage in the commercial production of agricultural implements. A simple informal business plan was developed, which included a basic market assessment. The plan pointed to the real challenge faced by local farmers in securing traditional agricultural implements, such as plows, during the farming seasons. The plan revealed the availability of local resources, local markets, and necessary local skills, but these opportunities had previously failed to be acted on due to a lack of business spirit. To catalyze the entrepreneurial initiative, the CFUG provided various types of support, from facilitating the initial enterprise establishment to the marketing of products. The Nepali Department of Forestry and the LFP jointly supported the initiative with a sum of US\$49 to each entrepreneur household as start-up capital.

Overall, the furniture enterprise required higher initial investment of approximately US\$780 as compared with approximately US\$49 required per AIPE entrepreneur. The furniture enterprise created five full-time employment positions, while the AIPEs created part-time employment for five households. The total earned income from the furniture enterprises was US\$9,730 during 2004 and 2005, while the four AIPE households earned US\$1,990 over the same time period.

The AIPEs do not provide full-time jobs, and all the income generated from AIPEs during the past two years is additional income to the entrepreneur households. Similarly, out of the income generated by the furniture enterprise, US\$3,890 was income additional to the entrepreneur households' normal baseline income (the employees estimated that they would have earned US\$5,840 over the two years as skilled labor if there was no furniture enterprise). The additional amount earned in both cases over a sustained period of time clearly suggests the potential of such initiatives in contributing to poverty reduction.

The overall assessment of the projects and their poverty alleviation potential was positive. The agricultural implements' enterprise was seen as particularly so because it was perceived to be an effective response to market demand.

---

<sup>9</sup> The Livelihoods and Forestry Programme (LFP) is a bilateral aid program of DFID and the Government of Nepal's (GON) Ministry of Forest and Soil Conservation (MFSC).



The reasons for the success of the enterprises include the following:

- Strong support from Government, NGO, and donor groups
- Selection of the right enterprise and entrepreneurs (motivation of participants, preexisting skills, and utilization of traditional practices)
- Location of enterprise: being located in the district capital has provided a broad and easily accessible market
- Availability of raw materials
- Growing market demand for products being produced
- Locally available processing facilities (sawmills)
- Strong institutional support often in the form of financial support
- Low initial capital investments (due to subsidization by donors/NGOs)

These cases suggest that SFBEs that produce goods from locally available forest resources, using local skills and located close to local markets have a high chance of success, especially if given appropriate support (in these cases, from NGOs) in the establishment phase. It demonstrates the potential of CFUGs to develop and manage forest-based enterprises. The positive experiences seem not to be limited to these two sites as this model has successfully been replicated by several neighboring CFUGs. The benefits include capability strengthening of CFUG members, particularly increased knowledge and appreciation of supply-chain processes, the development of improved wood-processing skills, and the realization of community-level empowerment.

The income realized in the Parbat and Myagdi cases is suggestive of the positive effects forest-based small-scale enterprise development may have with regard to poverty alleviation and livelihood development. The enterprises are providing employment and successfully generating income in rural areas. However, income generation and poverty reduction are not interchangeable and should not be confused. The real poverty-reduction impacts are as yet, unmeasured in both cases. Poverty reduction appears to be taking place although it is not eradication of poverty for the most vulnerable groups. The issue of elite capture is not addressed in either case. An additional important point is the difficulty in accounting for all costs. While the projects appear to be successful on several fronts, the financial success is obscured by a lack of clear accounting of the total inputs (donor grants, Government subsidies, and staff hours contributed), with a real possibility that the projects would not be viable without this significant support.

The local people primarily benefited from the SFBEs through business development, offering them options to wage labor (although, as discussed elsewhere in this paper, wage labor is often preferred over informal forest sector involvement, increasing the range of livelihood options is seen as a positive development) and allowing them to remain in their villages. Unlike other enterprises that process NWFPs, they are able to bypass middlemen and link directly with local marketing and processing entry points, and are able to develop direct relationships with clients. This has shortened the marketing chain and increased benefits accruing to the producers.

For the full benefits of enterprises such as these to be realized, there is a need for targeted policies that support forest-based enterprises and community forestry, and which are pro-poor at the same time. The catalytic role of donor assistance and NGO support was a crucial element facilitating the success of these cases. In addition, agencies and stakeholders facilitating forest-based small-scale enterprise development should undertake feasibility studies as a starting point in the identification of appropriate interventions. Support staff require orientation on skills and attitudes appropriate to working with the poor. The scaling-

up of best practices based on experience and lessons learned has been an important aspect of the Nepal experience.

### **Benefit Capture: Thuy Yen Thuong Community, Viet Nam<sup>10</sup>**

As a pioneering example of community-based timber harvesting in Viet Nam, the Thuy Yen Thuong community forest scheme illustrates not only the potential but also the shortcomings of community forestry. This case was considered innovative because the model for sustainable management of this forest, developed by the Ministry for Agriculture and Rural Development (MARD) through UNDP's Program for Forests (PROFOR), was an early attempt in Viet Nam at the harvesting of timber for sale and domestic use by the community. Thuy Yen Thuong offers an example of low-intensity harvesting that was well implemented and seems to have reduced logging impacts on the forest ecology. The subsidized price of timber that was intended to benefit villagers, however, had serious negative impacts on the profitability of the scheme. Ultimately, the case illustrates the problems with lumping "the poor" together as a homogenous group, and the risk of elite capture that severely jeopardizes efforts to reduce poverty.

In Thuy Yen Thuong, the key question is whom the program really served. To be selected for forest harvesting operations required experience gained mostly through previous involvement in illegal logging operations. Though this resulted in employment for some households not directly involved in village administration, none of the households engaged in harvesting were among the poorest in the community. The rate of pay for the tree fellers was at least four times the norm and enabled direct capture by this select group of 74% of the revenue from the harvesting operations. If wages for forest patrols and discounted timber are included, then the local elite captured well over 80% of the value of the timber. The jobs created cannot be claimed to contribute, at least directly, to the objective of poverty alleviation, and essentially rewarded those households that were relatively well-off for their involvement in past illegal activities.

The Village Management Board (VMB) set a price of 2.3 million dong (US\$140)/m<sup>3</sup> for the timber produced, generating a total income of about US\$7,300 from its sale. When compared to prevailing market prices, this was considerably lower than timber of similar species and quality. The going rate for Government-certified (and taxed) timber was about 3.5 million dong (US\$220)/m<sup>3</sup> in 2004. The price for nongovernment-certified timber is more difficult to establish, but was about 3 million dong (US\$175) in 2004. The sale should, therefore, have generated revenue of US\$9,000–10,000. The discount was intended to benefit villagers by providing less expensive timber but, as noted below, the artificially capped prices had a serious negative impact on the profitability of the community scheme.

The net income from the harvesting operations was 19.2 million dong (about US\$1,300), or just 17.5% of the gross income (Table 1). The Community Forestry Fund was administered by the VMB, and was meant to be used for the benefit of the whole community. Its use was discussed in village meetings, led by the VMB. Priority was given to the construction of a village gate, at a cost of 9.4 million dong (about US\$600). The gate has little practical value, but enabled the community to be granted the title of "cultural village," which conveyed honor and status to the VMB. The total and net income to the community fund were significantly less than their potential due to the discounted price of timber set by the VMB. If all the timber were sold at a rate of US\$175/m<sup>3</sup> (more consistent with prevailing market prices), this would have resulted in a 27% increase in gross revenue (US\$9,275), and (assuming expenses were constant) more than doubled the net revenue deposited in the Community Forestry Fund. By this measure, the net benefits to the community were disappointing. In addition to 60–80%

---

<sup>10</sup> Based on Vickers and Mackenzie (2007).

reduction in net communal revenue, the discounts represented a hidden subsidy favoring wealthier members of the community at the expense of the poor.

**Table 1: Costs and Net Income, Thuy Yen Thuong Forest, Viet Nam**

Expense	No of Units	Unit Cost	Total (US\$)
Felling and Extraction	52.9 m <sup>3</sup>	US\$106/m <sup>3</sup>	5,621
Monitoring and Inspection			155
Harvesting Design	9 person days	< US\$20/day	169
Forest Protection 2003–2004	88 person days	US\$1.57	138
Felling Ceremony			50
<b>Total Costs</b>			<b>6,133</b>
<b>Total Income</b>			<b>7,512</b>
Net Income to CFF			1,379

Source: Vickers and Mackenzie (2007).

Finally, the “community” aspect of the Thuy Yen Thuong forest was highly misleading as 90% of the households had not heard of, participated in, or received direct benefits from it. A key factor in the problems the project faced was overreliance on existing local governance structures. At the village level, the VMBs are set up less as consultative bodies and local democratic fora, and more as channels for top-down communication. This study has shown that even as a communication channel, the VMB did not function effectively, particularly when there was opportunity for it to capture valuable resources. A more inclusive, transparent, and representative mechanism is needed to ensure that community forestry provides benefits to the whole community, particularly the poor. This final point must be considered in relation, however, to Hobley’s (2007) caution on setting up parallel structures and thus relieving both power and accountability from local levels of governance.

As Mahanty et al. (2006, p. 81) have concluded, user group committees mirror social structures in which they develop. Therefore, community forests are “just as prone to *capture* by local elites as any other valuable local resource.” Thuy Yen Thuong is a colorful example of exactly this happening. Such an approach defeats the purposes of poverty reduction and is little different from the large-scale commercial operations that have been criticized for decades.

## Thematic Issues

On the basis of the cases presented above and literature on the subject, the following section explores some of the central themes and issues shaping the relevance of forestry to poverty reduction. Three spheres serve as the thematic framework in which the poverty reduction–forestry nexus is examined. These are roughly: a) policy, institutional, and legislative environment; b) market and economic dimensions; and c) social and political dimensions. This final sphere, while perhaps the most difficult to assess as well as to address, underpins the influence of the first two.

## **Policy, Institutional, and Legislative Environment**

Policies and legislation provide the essential foundation of rules and regulations that guide sound forest harvesting and management practices. The forestry sector in many countries is constrained by the poor enforcement of laws and regulations, mainly because of weak capacities, limited funds, and corruption. Illegal logging is pervasive and undermines opportunities for sustainable, pro-poor forest management by channeling cheap timber into the market that legitimate enterprises (both large and small) are unable to compete with. Policies have also often designated preferential subsidies and access rights to large-scale operators. While efforts have been made over the past several years to level the playing field for small-scale producers, there continue to be discriminatory regulatory and incentive systems aligned against them. Literature abounds on the necessity of secure access to resources in order for them to be managed sustainably and for the livelihoods of the rural poor to be strengthened. Security of tenure and resource access are key issues that national policies and legislation must fully address.

Discriminatory rules and regulations present one side of a fundamental challenge to small-scale commercial forestry. While most laws and regulations are not explicitly intended to be exclusionary, many were formulated to regulate large-scale forestry operations and are too complex and demanding for small-scale operators. In almost all of the cases described above, mention is made of bureaucratic and expensive processes that often serve as insurmountable barriers to the involvement of the rural poor in forestry.

### **Issues**

- Weak legislative frameworks in some countries
- Corollary is neglect of good legislation where it does exist
- Poor enforcement of laws and regulations or enforced too well on “minor violators”
- Laws too complex and demanding for small-scale operators
- Lack of secure land and resource access
- Complex roles and influence of the complex web of actors including local government, communities, NGOs, private enterprises, and individuals

### **Recommendations**

- Identify governmental barriers to responsiveness vertically and sectorally
- Limit preferential subsidies and access rights to large-scale operations
- Subsidiary principle—decentralize control to lowest level feasible
- Simple procedures for small-scale operators and shift to outcome-based regulations
- Strengthen rights to resources

## **Economic and Marketing Dimensions**

In the current context of globalization, economic growth is tagged as the most significant contributor of poverty reduction. As noted earlier, the role that forests plays in lifting people out of poverty has not been analyzed properly and has been poorly documented. While forestry plays a significant role in many countries, providing 10% or more of the gross domestic product (GDP) for some of the poorest countries (Steele and Kragt 2006), tangible financial benefits accrue largely to large-scale commercial forestry enterprises with limited positive impacts on poor rural communities. Evidence outside the forestry sector indicates that economic growth alone does not equal poverty reduction. Policies and direct interventions are generally required to translate economic benefits into improvements to the welfare of society's most vulnerable members.

There continues to be substantial revenue to be made from timber, but as alluded to earlier, economies of scale favor large-scale commercial enterprises. For poverty-reduction purposes, it is important to be cognizant of the economic conditions under which small-scale forest enterprises can be truly competitive. For example, products with prospects for growth in local, national, or international markets, or niche products with a limited number of producers, may offer the best potential for success for small-scale enterprises (Scherr et al. 2004; cited in Mahanty et al. 2006). There is considerable scope for small-scale producers to capture more of the timber-value chain through processing, such as on-site wood processing. In all cases, sound analyses and feasibility studies are essential in order to avoid misdirecting investments.

While SFBs are no more inherently disposed to poverty reduction than larger organizations, the evidence tends to suggest that benefits accrue in terms of wealth distribution, the localization of wealth, the empowerment of local groups, and greater gestures towards preserving cultural identity and practices. SFBs tend to have more informed understanding of local political contexts, stronger links with local civil society and a more reciprocal relationship with the communities in which they operate. There are a number of constraining factors associated with SFBs, however. The sector is highly informal, volatile, and fragmented (Mayers 2006). Essentially, SFBs offer much promise for pro-poor impacts, but, like larger enterprises, poverty reduction is not an explicit aim of SFBs. To encourage their support for fair employment opportunities and environmentally friendly operations, there must be supporting policy, institutional, and market environments.

### **Issues**

Appropriate, affordable, and sustainable technologies exist (e.g. mobile sawmills, chainsaw milling of lumber, animal skidding), but need to be applied in ways that fit the scale and capacities of small-scale producers

While SMFEs have potential to be pro-poor, like larger enterprises there is no a priori reason that SMFEs will reduce poverty

Institutional and NGO support in management and other capacity-building exercises is often pivotal

### **Recommendations**

- Small-scale producers need to capitalize on their strengths (i.e. locally-specific knowledge on tree species, local markets, and local consumer needs)
- Foster partnership arrangements with government or industries and communities
- Strengthen access to credit and ensure better risk assessments
- Build the finance and management capacity of the rural poor
- Long-term plans for growth and adaptation

### **Social and Political Dimensions**

This paper has been based on several assumptions. One is that “the poor” are an identifiable group, and another is that the benefits that flow from forests can in some way be directed to “the poor.” Hobley (2007) has convincingly argued for the need to differentiate who “the poor” are and improve our understanding of how subgroups with varying degrees of vulnerability can best be identified and targeted. Assumptions involving the poor have long asserted that by providing opportunities for poor people to express their voice through various fora, that the process becomes democratized and pro-poor. As Hobley (2007) points out, this flies in the face of evidence that local-level power relations often result in an environment in which less powerful groups are offered no genuine, “safe” space in which to communicate their viewpoints. It also detracts from the other means traditionally used by groups to affect change (e.g. political organizations, mass associations, unions). A more useful effort would be

focused on strengthening the means for poor people to access and use these existing formal and informal means of exercising their voices. This can be difficult (as in the Thuy Yen Thuong case) and where elite capture is firmly entrenched, it may not be possible.

There are several important conclusions to be drawn from this analysis. First is the need to understand poverty in a dynamic and differentiated way, and attempt poverty reduction through similarly sensitive and nuanced interventions. An aspect of this may be the recognition that in implementing poverty-reduction interventions, particularly forestry-related interventions, it is almost inevitable that some individuals fall through the cracks. Secondly, it is necessary to recognize the significance of informal relations in addition to formal ones. This includes understanding that simply being in attendance at meetings should not be automatically viewed as meaningful participation on the part of the poor. Finally, critical linkages need to be established between sectoral policies and those aimed at rural poverty alleviation. The constraints and barriers faced by rural poverty extend beyond forest resource use, and policies targeting this aspect must nest it within a context of rights and justice.

### **Issues**

- Importance of a nuanced view of “poverty”
- Certain actors such as intermediaries and elites are not necessarily opposing pro-poor initiatives, but usually cannot be relied upon to provide support independently
- Significance of formal and informal relations
- Informal forestry sector employment is often a second choice to formal wage employment

### **Recommendations**

- Undertake pro-poor forestry through the lens of poverty rather than forestry
- Define pro-poor policy by outcomes rather than intent
- Supplement “participation” with other more targeted approaches

## **Conclusions**

Space exists for small-scale enterprises to carve out niches in the forestry sector successfully. What remains unclear to date is whether such initiatives have had truly pro-poor impacts. The evidence that small-scale commercial forestry operations, as they were explored in the four case studies, have eliminated poverty is lacking. At best, they appear to have mitigated poverty, by providing some income that helps people not to slip further into destitution. At worst, the initiatives have been anti-poor.

Questions remain as to *what criteria should be used to determine the poverty-reduction effectiveness of policies and interventions?* Also, *how do we define “the poor” and who is it really that we hope to target? What means do we use to ensure that target groups receive benefits? How can we ensure that income generation translates into poverty elimination and not into wealth accumulation by the elite?* As the literature illustrates, policy and practice largely ignore the heterogeneity of communities. The variation within rural groups and the growing levels of inequality among them need to be met with practical policy responses, and these are rarely within the implementation capacity of single agencies. Interagency cooperation and implementation are necessary.

The exact role that forests and forestry take on vis-à-vis poverty reduction varies according to the precise context of the individuals and communities relating to it. As Hobley (2007) points out, where urbanization and industrialization are stagnant and thus limited income-generating

opportunities prevail, in concert with a repressed or co-opted civil society, the barriers to moving out of poverty are far greater and forests take on an import of “last resort.” Where there are support systems in place, be they kinship networks or some form of state-based social protection, the role of forests becomes a supplementary one. Given these various multidimensional roles which forests assume, they are inherently political and serve as a landscape in which political power is established and wielded. As pointed out earlier, these forms of power range from formal to highly informal and thus are difficult to transform.

Improving the assets and capabilities of the poor is largely contingent on an enabling policy environment. This includes policies that lead to broad-based economic growth, which provide safety nets to protect the most vulnerable and that make budgetary allocations for interventions that directly target the poor. The evidence to date alludes to the limited nature of forestry as being pro-poor in the sense of reaching the extreme poor. Its potential to make genuine contributions to improving the welfare of local communities seems particularly suited to the relatively better-off among the poor, to those who have the advantage of multiple livelihood options, and who are in a position to assume some of the risks associated with enterprise development and active decision making at the local level.

It is naïve to emphasize the role of forestry in alleviating the vulnerability of the extreme poor. Rather, the role of forests vis-à-vis extreme poverty will likely be confined to serving as safety nets, particularly during times of seasonal and life cycle distress. There are certain uncomfortable realities that come with viewing forests through a pro-poor, rights-based lens. It might involve, for example, recognition that conversion of forests to agricultural use may provide greater livelihood security to extremely poor groups than maintaining them as forests. If we are serious about poverty elimination, it is necessary that a more nuanced policy dialogue takes place that anchors pro-poor policy approaches in principles of rural—and industrial—development rather than sectoral development. Aside from the thorny issue of placing people, rather than forests, at the center of land-use and economic policies, it is clear that there is some degree of scope to change existing forest policy and practices from being anti-poor to neutral if not actively pro-poor.

## References

- Acharya, K. & Acharya, S.** 2007. Small wood-based enterprises in community forestry: contributing to poverty reduction in Nepal. In R. Oberndorf et al., eds. *A Cut for the Poor: Proceedings of the International Conference on Managing Forests for Poverty Reduction: Capturing Opportunities in Forest Harvesting and Wood Processing for the Benefit of the Poor*, pp. 94–105. Bangkok, FAO, RECOFTC, SNV.
- Akivi, A.** 2007. Capturing opportunities in forest harvesting and processing to benefit the poor in Papua New Guinea. In R. Oberndorf et al., eds. *A Cut for the Poor: Proceedings of the International Conference on Managing Forests for Poverty Reduction: Capturing Opportunities in Forest Harvesting and Wood Processing for the Benefit of the Poor*, pp. 154–163. Bangkok, FAO, RECOFTC, SNV.
- Bagong Pagasa Foundation.** 2006. *Study on Labor-based Timber Production Using Manual Flitching Saws*. Philippines.
- Borlagdan, S., Guiang, E. & Pulhin, J.** 2001. *Preliminary Assessment of Community-based Forest Management in the Philippines*. Project Report. Institute of Philippine Culture, Ateneo de Manila University and Department of Social Forestry and Forest Governance, College of Forestry and Natural Resources. Philippines.
- Brocklesby, M.** 2004. *Planning against Risk: Tools for Analysing Vulnerability in Remote Rural Areas*. Chars Organisational Learning Paper 2. London, DFID (available at [www.livelihoods.org/lessons/project\\_summaries/comdev7\\_projsum.html](http://www.livelihoods.org/lessons/project_summaries/comdev7_projsum.html))/
- Byron, N.** 2006. Challenges in defining, implementing and renewing forest policies. *Unasylva*, 223: 10–15.

- Chomitz, K., Buys, P., de Luca, G., Thomas, T.S. & Wertz-Kanounnikoff, S.** 2007. *At Loggerheads? Agricultural Expansion, Poverty Reduction, and Environment in Tropical Forests*. Washington, DC, World Bank.
- Dugan, P. & Pulhin, J.** 2007. Forest harvesting in community based forest management in the Philippines: simple tools versus complex procedures. In R. Oberndorf et al., eds. *A Cut for the Poor: Proceedings of the International Conference on Managing Forests for Poverty Reduction: Capturing Opportunities in Forest Harvesting and Wood Processing for the Benefit of the Poor*, pp. 38–46. Bangkok, FAO, RECOFTC, SNV.
- Food and Agriculture Organization of the United Nations (FAO).** 2003. *State of the World's Forests 2003*. Rome, FAO.
- Hobley, M.** 2007. *Where in the World Is There Pro-Poor Forest Policy and Tenure Reform*. Washington, DC, Rights and Resources Initiative.
- Lebedys, A.** 2004. *Trends and Current Status of the Contribution of the Forestry Sector to National Economies*. Working Paper: FSFM/ACC/07. Forest Products and Economics Division. Rome, FAO.
- Loughhead S., Mittal, O. & Wood, G.** 2001. *Urban Poverty and Vulnerability in India: DFID's Experiences from a Social Policy Perspective*. India, Department for International Development.
- Mahanty, S., Gronow, J., Nurse, M. & Malla, Y.** 2006. Reducing poverty through community based forest management in Asia. *Journal of Forest and Livelihood*, 5(1): 78–89.
- Mayers, J.** 2006. Poverty reduction through commercial forest. What evidence? What prospects? *The Forest Dialogue*, School of Forestry and Environmental Studies, Yale University, New Haven.
- Neumann, P.R. & Hirsch, E.** 2000. *Commercialisation of Non-Timber Forest Products: Review and Analysis of Research*. Bogor, Center for International Forestry Research.
- Pulhin, J.M.** 2005. *Enhancing the Philippine's Community-Based Forest Management Implementation Strategy: Synthesis of Six Case Studies*. Final Report submitted to the Forest Management Bureau of the Department of Environment and Natural Resources, Quezon City, Philippines.
- Pulhin, J.M., Inoue, M. & Enters, T.** Three decades of community-based forest management in the Philippines: emerging lessons for sustainable and equitable forest management. *International Forestry Review*, Vol.9(4): 865–883.
- Sachs, J.D.** 2005. *The End of Poverty*. New York, The Penguin Press.
- Scherr, S.J., White, A. & Kaimowitz, D.** 2004. *A New Agenda for Forest Conservation and Poverty Reduction: Making Markets Work for Low-income Producers*. Washington, DC, Forest Trends.
- Sen, A.K.** 1981. *Poverty and Famines: An Essay on Entitlements and Deprivation*. Oxford, Clarendon Press.
- Steele, P. & Kragt, M.** 2006. *Growth and Poverty Reduction: What is the Role of Forests?* Prepared for Environment and the Poverty-Environment Partnership. Draft, February 2006.
- Sunderlin, W.D.** 2004. *Community Forestry and Poverty Alleviation in Cambodia, Lao PDR, and Vietnam: An Agenda for Research*. Position paper presented at the Regional Consultation Workshop on ADB-RETA 6115 "Poverty Reduction in Upland Communities in the Mekong Region through Improved Community and Industrial Forestry." 01-02 September 2004, Bangkok.
- Sunderlin, W., Angelsen, A. & Wunder, S.** 2003. Forests and poverty alleviation. In FAO, *State of the World's Forests 2003*, pp. 61–73. Rome, FAO.
- Vickers, B. & Mackenzie, C.** 2007. Sharing the wealth? A case study of a pioneering community-based timber harvesting operation in Central Viet Nam. In R. Oberndorf et al., eds. *A Cut for the Poor: Proceedings of the International Conference on Managing Forests for Poverty Reduction: Capturing Opportunities in Forest Harvesting and Wood Processing for the Benefit of the Poor*, pp. 118–131. Bangkok, FAO, RECOFTC, SNV.
- Wood, G. & Salway, S.** 2000. Introduction: securing livelihoods in Dhaka slums. *Journal of International Development*, 12: 669–688.