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Enhancing Rural Livelihoods and Economies through Participatory Natural Resource Management

Background

In the beginning, community forestry (CF) in Nepal, joint forest management (JFM) in India, and social forestry (SF) in Bhutan were conceptualised as subsistence oriented forest-based activities to fulfil the fuelwood, fodder, leaf litter, timber, and other subsistence requirements of local communities. While meeting subsistence requirements is important, local people also need cash income to improve their quality of life. With the active participation of local communities, many degraded forests have now been converted into secondary forests, which are not only able to fulfil the subsistence requirements of local people but also produce surplus products.

Despite the great potential of community forestry, joint forest management, and social forestry to enhance the livelihood options of local people and alleviate poverty using locally available forest raw materials (Neuman and Hirsch 2000; Roe 2004), little attention has been given to the development of local enterprises based on surplus forest products to improve the local economy and livelihoods of rural people. As a result, participatory forest management practices in the region have failed to have a significant impact on employment generation, livelihood enhancement, and poverty alleviation as there has been little economic incentive.

The three GTZ projects initiated forest-based enterprise development in all three countries in which they were active. The pioneering initiatives have contributed to enhancing rural livelihoods and rural economies, as well as identifying policy and institutional factors that facilitate the shift from subsistence use to more commercial uses of forest products, while maintaining the ecology and sustainability. This section gives a brief background to the promotion of forest-based rural enterprises, together with a discussion of the strategies and approaches adopted by the three projects; documents the lessons that have emerged from these projects; identifies policy implications; and makes recommendations.

Case Studies: Innovations in Natural Resource Management beyond Subsistence

Sha Gogona Milk Processing Unit in Bhutan: From pasture to pasteurised cheese

Sha Gogona is a beautiful valley in Bhutan with vast open meadowland situated at an altitude of 3,200 masl. The valley is about three hours walk from the nearest roadhead and has no electricity. The valley has good pastureland and supports animal husbandry.

The farmers in the valley practise subsistence farming and raise livestock. At the request of the local farmers, and after conducting a feasibility study, the Model Rural Dairy Enterprise in Sha Gogona was (re-)established in 2004. The BG-SRDP played an instrumental role in the process with provision of technical and financial support. Project activities started with the formation of a farmers' saving group consisting of 66 members. From this group, a management committee with 33 members was established to manage the processing unit. The pastureland attracted farmers to become involved in animal husbandry for milk production on a commercial scale, which, in turn, provided them with a good source of income. With further development of the pastureland, free grazing in the forests was reduced, enhancing natural regeneration (Box 1). To promote the milk processing unit, several aspects were simultaneously developed and implemented, including improved livestock/pasture breeding, pasture development, and marketing.

Box 1: The Sha Gogona Milk Processing Unit

The Model Rural Dairy Enterprise in Sha Gogona was originally established with support from the Swiss Government. It was renovated through GTZ's BG-SRDP, after being closed for about a decade. Now, the member households deliver milk daily to the enterprise and are paid Nu15 per litre. The average milk collection is 300 litres per day and cheese production is about 300 to 400 kg per month. Milk collection and cheese production are expected to increase gradually. The milk is tested for quality and fat content. Cheese processing, as per market demand, is done strictly according to the guidelines on clean milk production. The management team initially delivered cheese to the main market outlets by itself, but this is now done by a company that specialises in the sale of organic products. A breed and pasture improvement programme was started simultaneously. So far, the milk processing unit is a success, converting pasture into pasteurised milk products, and serves as a model for other economic activities



BG-SRDP

Local people employed in cheese products and quality cheese, Gogona Milk Processing Unit, Bhutan

Himachal Pradesh: Adding value to forest products

The IGCEDP initiated commercial enterprises based on local non-timber forest products in order to enhance the livelihoods of local people, particularly women and poor groups, using local NGOs to mobilise user groups. The idea was to empower women and marginalised groups by developing additional livelihood options through commercial enterprises based on locally available resources. However, forests take time to grow so there was no immediate incentive for user groups to undertake afforestation. Hence, the project came up with the innovative idea to 'value-add' to existing domestic surpluses and/or easily available forest products. Once the user groups realised the benefits of using existing forest products, they were motivated and their attitude changed towards planting, protecting, and managing new forests. As a result, a total of 29 women groups with a total of 192 members were formed across the Changar area.

To promote this venture, the project adopted an integrated approach to provide a complete package, including social mobilisation, production, institutional set-up, and research and development. Special attention was given to the marketing of products. The women's groups started collecting, processing, and selling locally available NTFPs with medicinal or nutritional value for which there was good market demand. The important species used were amla (*Emblica officinalis*), harar (*Terminalia chebula*), bahera (*Terminalia belerica*), aampapad (mango product), aam-maakri (raw dried mango chips), aamchoor (raw mango pulp powder), and tejpatta leaves (*Cinamomum tamala*). The women's groups then joined into a federation as a microenterprise organisation named Vasundhara (registered as Vasundhara Van Utpaad Producers Company Ltd) to market their products. The organisation now has an operational unit, which includes a processing, packaging, and pulverising unit. This forest-based entrepreneurship provides employment and income for the rural poor (Box 2). Scaling up of such successful innovations was an inbuilt part of the programme and two new organisations have already come up after seeing the success of the project.

Box 2: Vasundhara – Exemplary value addition to surplus eco-products

A survey conducted by IGCEDP explored the huge amount of underutilised NTFPs in the locality with high potential for value addition. In 2001/02 to 2003/04, the Vasundhara women's group initially collected and sold deseeded dry amla through agents at the local market in Amritsar and the Khari Bawali market in Delhi. Building on this experience, they gradually added a number of processed NTFPs, which they sold in the market. In 2004/05, they produced 7.5 tonnes of dry, deseeded amla and 0.4 tonnes of other dry materials and plant species valued at IC 250,000 (approx. US \$5,400). Vasundhara is now convinced that it can survive on its own and is planning to diversify its range of products, and set a total turnover target of IC400,000 (US\$ 8,639) for 2006/07.

Vasundhara is a good example of the enterprising use of underutilised NTFPs through value addition to produce finished marketable products that involves women not only in the collection, but also in the processing and marketing of the finished goods, to provide a good source of additional income. This venture also elevated the social status of women in Changar in their own families, as well as in society at large, as self-employed women. (For details see Newsletter Changar Charcha No. 5 and Approaches to Participatory Natural Resource Management, Technical Paper Series No. 2, 12, 13).



Barakay

Collecting NTFPs for value addition



Bael juice in Siraha, Nepal: Using surplus forest products

In the Churia Forest Development Project (ChFDP), the protection of forests with the active participation of forest user groups led to an abundance of bael (*Aegle marmelos*) trees. Bael cannot be used for timber, fuelwood, or fodder, and is one of the least preferred species in forest management. No animal or bird eats its fruit, which is found abundantly in the forest. The extracted juice, however, is a marketable product (Box 3), and this can be used to generate employment and income for the local poor people. This community-based entrepreneurship has also encouraged the exploration of the potential of other forest products.

E. Kerkhoff

Bael tree with fruits

Box 3: Bael juice processing – entrepreneurship with unused forest products

An assessment of community forests in the ecozone of the Churia Forest Development Project found that unused bael fruit could provide enough raw material to prepare a refreshing and healthy juice. In the initial stages, it was not possible to gather enough raw material from one CFUG. Hence, a network of 17 CFUGs was established to pool resources. A processing plant was established at Dhodna, about 5 kilometres north of Lahan, which is the largest market centre in Siraha district and located on the East-West Highway. With the help of local NGOs, the CFUGs improved processing methods and increased their annual output from 2,000 to 30,000 bottles, enough to operate a viable and profitable venture with retailers as far away as Kathmandu. The community in which the processing unit is based has formed an NGO to manage the business and coordinate the network of CFUGs to collect the bael fruit. Two processing machines are currently operating and the unit employs 20 people. All the juice products in 2004 were sold, netting the community a profit of over NRs1 million (US \$13,500); more than enough to clear all loans incurred in the development of the processing unit. Encouraged by this success, several other enterprises have sprung up in other parts of the Terai, Nepal.

Lessons Learned

The three case studies show that community forestry in Nepal, joint forest management in India, and social forestry in Bhutan are gradually moving from subsistence to small-scale forest-based enterprises. These case studies illustrate some important policy lessons:

1. Local enterprises based on raw forest materials can be developed with appropriate support.
2. A shift from subsistence to commercial use of forest products can improve the livelihoods of local people and enhance local economies through employment generation and other multiplier effects.
3. The shift to the commercial use of forest products can also help to alleviate poverty, achieve the millennium development goals (MDGs), and manage forest resources in a sustainable way.
4. To achieve the twin goals of conservation and income generation, proper attention needs to be given to institutional development, capacity building of local enterprises to enable them to deal with complex managerial issues, and the provision of support services, including marketing, credit, technology and infrastructure, and research and development.
5. The supporting role of NGOs and government agencies is crucial, particularly at the formative stage. The bael juice factory in Nepal; Vasundhara in India; and the Sha Gogona Milk Processing Unit in Bhutan would not have developed and been successful without the technical, marketing, advisory, and other support provided by the three GTZ projects.
6. Attention also needs to be paid to policy and legal support, and the institutional framework, and post project backstopping mechanisms need to be in place. Many good initiatives for forest-based and rural enterprise development are frustrated due to lack of an enabling policy and institutional environment. For example, a few CFUGs were unable to establish a cooperative or company to manage income generating activities in Nepal due to existing policies that restrict the expansion of enterprises to include new members and limit their diversification into new products.

Policy Implications and Recommendations

The lessons that emerged from the three projects have many policy implications. It is evident that there are great opportunities to enhance rural livelihoods, contribute to achieving the MDGs, empower women, and improve the local economy, while still conserving the natural resource base, through value addition and the commercial use of forest resources. To tap these opportunities, governments should facilitate the process of value addition and the commercial use of forest resources.

Transforming subsistence-based forest management to commercial forest management based on market demand is, however, a challenging task. It requires a change in people's attitudes and behaviour, and an improvement in their skills levels and managerial capacity to deal with new technologies, to work through and within a new institution, to market products, and to deal with other uncertainties. To facilitate this transformation, appropriate policies, programmes, and projects are necessary. The experiences gained from the implementation of the three GTZ projects suggest that, unless enabling policies and programmes are put in place that support forest-based enterprise development, the initiatives taken by such projects will remain localised, or even wither away over time.

To facilitate the value addition of forest resources and the promotion of the commercial use of forest resources, the respective governments may wish to consider following recommendations.

Entrepreneurship-oriented policy development: An appropriate policy should be put in place to provide a proper framework for the development and promotion of the value addition of locally available forest resources and their commercial use through enterprise development. Government policies should also encourage formal linkages with entrepreneurship agencies including government, semi-government, I/NGOs, the private sector, and cooperative societies. Policies also need to be flexible enough to collaborate with the private sector in order to tap private sector expertise in forest-based enterprise development.

Enabling programmes: To shift from subsistence to commercial enterprises, local people need new knowledge, skills, information, and technology. Due to a lack of such support facilities, forest users are often compelled to sell their surplus forest products to outsiders in a raw form at very low prices. Unless necessary support is provided, initiatives taken by local people will remain localised or wither away over time. It is, therefore, important to develop appropriate programmes and projects in order to provide the necessary support to local enterprises so that they can sustain themselves on their own. However, such support should be based on market analysis and feasibility studies to minimise risks and uncertainties.

Institutional development and capacity building: The forestry sector should focus on institutional development and capacity building for enterprise development at all levels, including credit, marketing, cooperatives, and the development of transportation facilities. Forest-based enterprises should also be linked to research and development institutions. The capacity building of supporting resource agencies/staff is important and must be part and parcel of the package.

Developing inter-agency linkages: Due to the lack of linkages between the forestry sector (including community-based approaches) and enterprise development agencies, the skills necessary for managing commercial forest-based enterprises are not well developed. More integration is required between the forestry sector and other sectoral policies to promote forest-based enterprises. The lack of partnership policies between governments, community forestry, and the private sector has hindered collaboration between these potential partners. This lack also constrains the private sector from investing in forest-based enterprises, other than traditional ones like saw-milling, furniture, and plywood. Therefore, partnerships should be encouraged between agencies working in production, marketing, research, and extension to work hand-in-hand in order to identify new economic avenues such as bio-fuels, floriculture, and other options. Focus should be given to the development of public-private partnerships.

Making regulatory measures simple and easy: Complicated regulatory and administrative procedures discourage investment in forest-based enterprise development. To promote forest-based enterprise development, existing regulatory bottlenecks need to be removed and necessary incentives should be given to attract investment in enterprise development in the forestry sector. A federation or establishment of regional hubs for forest-based enterprises may be helpful to generate synergy and capacity for collective bargaining and negotiation. Attention also needs to be paid to the sustainable use of resources, and appropriate mechanisms (e.g., certification of sustainable management) need to be developed to this end.

Inclusion of resource poor and sustainable use: Ways and means need to be developed to make sure that the resource poor can proactively join and benefit from such ventures.