
The World Bank/WBI's CBNRM Initiative

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Community Based Natural Resource Management in Nepal Nontimber Forest Products and Biodiversity Conservation

Identification of the Case

Humla District is located in the far northwest corner of Nepal. This remote area of Nepal with its unusual confluence of geologic, climatic, and biological factors has exceptional ecosystem diversity and biogeographic isolation, which creates a region of high floral diversity. Its renewable resources include the Karnali watershed, subtropical, temperate and alpine forests, and alpine pastures. Humla and other areas like it in Nepal are rich in medicinal and aromatic plants - nontimber forest products (NTFPs) that have been traditionally harvested by the local Tibetan and Hindu communities for subsistence and trade uses. For poor isolated communities in Nepal the trade of NTFPs is an economic necessity, but at the same time an environmental downfall, as increased pressure to overharvest the NTFPs is placed on the communities by outside traders. Appropriate Technology International (ATI) and the Asia Network for Small-Scale Agricultural Bioresources (ANSAB) began assisting Humla with value-adding NTFP processing and biodiversity conservation in 1994 in an attempt to provide incentives for sustainable harvesting of NTFPs.

This program is closely linked to His Majesty's Government's effort to promote community forestry. The Humla project has adopted an integrated conservation and development approach. The key feature of this approach is that it does not attempt to divide biodiversity-rich landscapes into areas formally reserved for biodiversity conservation versus areas for human populations. Rather, the program treats the landscape as an integrated whole, attempting to develop direct links between biodiversity and the surrounding communities. The experiment, which includes institutional innovations at the local and national levels, is beginning to show results and the experience is now being spread to other districts in Nepal.

Contextual Factors

Nepal and specifically Humla have progressive community forestry laws and a rich variety of high value NTFPs, yet the Community Forestry User Groups (CFUG) management plans were not including NTFPs. ANSAB and ATI played a catalytic role in changing this and Humla became the first district where approved CFUG agreements included NTFPs. Demographic and

socio-economic pressures in Humla were making sustainable management of NTFPs difficult if the people continued to only trade lower value raw materials. Tenure alone was not going to change this dynamic so ATI and ANSAB helped Humla become one of the few areas doing value adding processing. The first community owned essential oil processing company in Nepal, Humla Oils, Pvt. Ltd. was established. Threats to biodiversity include overharvesting of NTFPs, fodder and fuelwood collection, and grazing practices. Mr. Bishma Subedi, Biodiversity Program Manager for ANSAB, and Ms. Ann Koontz, Program Director for ATI's NTFP Program have been involved with the Humla project for the last four years. Ms. Koontz took part in the original planning mission as the enterprise expert and has overseen ATI's implementation activities since 1994. Mr. Subedi has been providing direct assistance on biodiversity monitoring and CFUG formation to the Humla community groups since 1995.

The government of Nepal has pioneered an approach to community forestry through legislation that provides communities with secure tenure rights and the authority to manage and utilize common property resources. Following the Forest Act of 1993 and the associated Community Forestry Directives of 1995, communities have gained the right to constitute Community Forestry User Groups (CFUGs) which function democratically, and which in turn are able to claim government-owned forest and pastures as Community Forests. CFUGs can harvest and trade forest products as well as collect the royalties levied on forest products that previously were paid to the government.

NTFPs are a significant source of revenue for Nepal. In 1996 ANSAB conducted the first NTFP trade survey for Nepal and found that approximately 42 thousand tons, consisting of more than 125 different NTFPs were handled by about 100 traders in 1995. This trade amounted to more than \$26 million in 1995, yet most left Nepal in raw form with no value adding processing and none had been incorporated into CFUGs.

The Initial Situation

The community of Humla had been harvesting several NTFPs and trading them in raw form to traders who then smuggled them over the border to India where the plant materials were processed into essential oils and incense. As high value NTFPs such as Jatamansi (*Nardostachys grandiflora*) and Sugandhwal (*Valeriana jatamansi*) were being depleted in India, traders stepped up buying programs in remote areas such as Humla where levels of the prized plants were still in good supply. In a short period of time traditional conservation and management practices were overwhelmed by the outside pressure. Since the lands were considered government property and not under the control of the communities there was the incentive to harvest all one could before someone else got to it. There was little or no awareness for biodiversity issues and no alternatives being offered to the communities that would change the unsustainable practices. Government bans on the exportation of the raw herbs had little or no impact on the destructive trade.

The Change Process

In 1994 ATI and ANSAB initiated a planning process with the communities of Humla for a Biodiversity Conservation Network Project (BCN). The BCN program has the hypotheses that

"if communities are given control over their resources and access to technical and managerial assistance, then they will act to conserve their natural resources." The participatory planning process verified the NTFP trade dynamics that were effecting the people and proposed a multi-activity approach to conserve the area's biodiversity while increasing the incomes of the villagers. The key activities included institutional innovations at the local level (formation of Humla Oils Pvt. Ltd. and the Humla Conservation and Development Association) and the national level (close collaboration with the Forests Department and District Forest Offices and increased awareness for NTFP issues through a newly created Nepal NTFP Network). Specifically the project:

1. Established a value-adding enterprise, Humla Oils, Pvt. Ltd. which processes aromatic plants into essential oils. The enterprise provides more income to the community and reduces the need to overharvest. ATI adapted distillation technology to the high altitude remote site and trained the local people to operate the equipment and run the business. ATI and ANSAB also assisted with product marketing and were able to broker a deal with a leading New York essential oils distributor for the promotion and sale of Humla oils in the United States.
2. Conducted Biological surveys and developed biodiversity monitoring plans with the communities. Outside botanical experts trained local people to conduct species inventories and do test harvesting plots to determine optimal harvesting levels for each herb. Rotational harvesting plans were initiated.
3. Assisted villages in forming CFUGs and obtaining management control and use rights from the government. ANSAB worked closely with the district forestry officials to get NTFPs included in the CFUG agreements.
4. Integrated conservation education into post literary classes run by an education NGO.
5. Established a community NGO to oversee the continuation of these activities after the BCN project was over and ANSAB and ATI exited from the area. The Humla Conservation and Development Association (HCDA) was established with key representation from village development committees and women's groups. ANSAB provided institutional development and management training for HCDA staff.
6. Established a nationwide Nepal NTFP Network to bring NTFP issues into the forefront of forest conservation efforts and facilitate cross learning between government officials, community members, NGOs, private sector companies, and researchers.

The Outcome

1. **Value Adding Processing as a Strategy for Increasing Incomes from Sustainable Harvesting of NTFPs:** The first distillation unit processed the targeted number of kilos (250,000) in the first year and sold its entire stock of oil generating over \$25,000 in revenue. This success prompted a second unit to be established and the neighboring district of Jumla has also replicated the distillation enterprise. A third district, Dolpa is now making plans to launch their own community based distillation enterprise.
2. **Biodiversity Conservation and Sustainable Harvesting:** Biodiversity monitoring plans have been put in place and the communities are taking an active role in the data collection and test plots. While it is still too early to determine the long term effects on biodiversity conservation, collectors are eager to learn the outcomes from the test plots and until this

information is known, have adopted a rotational harvesting plan. Estimated sustainable harvest rates are closely integrated into enterprise expansion plans. Since actual sustainable harvest rates were not known before the enterprise started operating, maximum capacity levels were based on harvesting no more than 50% of the harvest levels prior to the project's start.

3. **Government Handover of Forest Lands to Communities:** Twenty-four community forest user groups (CFUGs) covering 13,329 hectares and 2,128 families have been organized of which 9 CFUGs have had land handed over to them from the government; 9 are in the process of being handed over, and 6 are planned to be handed over in 1998. The resource management plans all incorporate NTFPs including 17 commonly traded NTFPs.
4. **Promising Conservation Practices by Communities:** Conservation education is starting to show some preliminary outcomes. Several villages stopped burning the upper pastures in order to conserve NTFPs; rotational harvesting has been adopted; and villagers are interested in enrichment planting. Villages have also instituted group collecting where everybody will go together so harvesting levels can be more easily enforced.
5. **Continuing Institutional Support at the Community Level:** HCDA has taken an active role in the enterprise's development, biodiversity monitoring, and CFUG formation. This past year they were able to generate their own funding from outside sources so that when BCN support ends in 1998 they will continue operations and expand conservation activities.
6. **Greater National Level Institutional Cooperation for Community Forestry Issues:** The Nepal NTFP Network has an active coordination committee with representation from the Ministry of Forests & Soil Conservation; Department of Forests; Department of Plant Resources; Department of National Parks & Wildlife Conservation; Department of Soil & Watershed Conservation; Forest Research & Survey Centre; Community Forest Division; Institute of Forestry; Nepal Foresters Association; Herbs Production & Processing Co. Ltd.; Humla Conservation and Development Association; and ANSAB. The network has elevated the importance of NTFPs in community resource management and provided the various government agencies with a neutral venue for discussing conservation and development issues. Communities have been able to quickly provide feedback to policy implementers on what is going well and not well with CFUG handovers. The Humla experience has been ground breaking as it has provided a model for including NTFPs in resource management plans and the trade studies conducted by ANSAB have helped policy makers understand the economic and environmental importance NTFPs hold for Nepal.

Lessons Learned

This case has provided us with several key lessons, most of which we feel are applicable to the majority of groups interested in community based resource management.

1. An area cannot be too far degraded or too pristine for a combined enterprise/conservation project to be effective. If an area is too pristine, it is difficult to get people to realize the importance of conservation; too degraded and restoration work must be done before enterprise activities can be initiated.

2. The economic activity should be the entry point with the communities. While biological monitoring and conservation education must also be initiated from the start, economic benefits win the trust and respect of community members and get them interested in resource management issues faster.
3. International NGOs such as ANSAB and ATI have a catalytic role to play in community based resource management, but local and national level institutions need to be integrated into the process from the start for long-term sustainability of the activities and replication.
4. Forums that bring together the government, NGOs, private sector, community groups, and research institutions are essential to open dialogue and effective feedback on policy implementation strategies.
5. Last but not least, communities must have economic control of the resources. Tenure alone is not sufficient. Communities must also have access to technical, management, and marketing expertise to effectively manage their natural resources.