

Non-Timber Forest Products: an alternative source of rural income

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This article presents the results of work by the Nepal Australia Community Resource Management Project in the sustainable production, management, harvesting and marketing of Non-Timber Forest Products (NTFPs) by Forest User Groups (FUGs), with a view to creating alternative sources of income for rural households.

Context

Dandapakhar, in Sindhu Palchok District of Nepal, was the focus area for the Nepal Australia Community Resource Management Project to undertake action research on the potential of NTFPs as a source of rural income. The area is located along the Jiri Road at an altitude between 2000 and 3000 meters, and is rich in natural broad-leaved forest harboring a large variety of indigenously occurring species having medicinal, aromatic and other values. The species occurring in Dandapakhar have both traditional and non-traditional uses and (the potential to) command, in some cases, significant market prices, not only locally, but also in Kathmandu and the international market.

A survey conducted in the area in 1997 found that individual villagers were trading just four NTFPs, but the potential was there to harvest and market more than 30 species. Individual collectors were found to receive low benefits. Forest Users Groups were not exercising management roles and NTFPs were generally harvested unsustainably. Traders on the other hand were found to be receiving more than their fair share of the profits. The locally operating system was such that traders gave NTFP collectors advance sums of money during periods when households badly needed cash (such as at the start of the agricultural season and just before the festival of Dashain), thereby binding individual collectors to them. The advance system resulted in unchecked extraction of NTFPs from community forests, with little or no attention to sustainability aspects. NTFP resources became depleted and collectors were exploited, as it was the traders alone who decided on farm-gate prices for the NTFPs. The Project felt that this situation could and should change.

How the situation was changed

Discussions were held between the communities and Project staff to raise awareness about the situation that the communities were in, and to explore ways to increase local benefits by enhancing the capacity of FUGs to manage NTFPs sustainably, and to explore the market and increase confidence of users to deal with traders. Visits were made to other NTFP-producing areas as well as markets, resulting in a change in perception and attitudes of users with respect to the roles they could play in improving their situation. Plans were developed to initiate sustainable management of the resources, starting off with the conduct of a forest inventory and revision of Forest Operational Plans to include prescriptions for NTFP management. Products having the greatest market potential were identified: Chiraito (*Swertia chiraita*), used as in ingredient in medicine to control fever, Argeli (*Edgeworthia gardneri*) from which traditional paper is manufactured. Cardamom (*Amoinum subulatum*), a spice, and Lauth Salla (*Taxus boccata*), an ingredient in cancer combating medicine. Initial efforts in Dandapakhar focused on these species. Trainings were organized, covering such topics as planting and processing methods. A FUG nursery was established to produce and sell NTFP seedlings for plantation in community forest as well as private land.

A network of 25 FUGs was formed to undertake cooperative marketing of a variety of NTFP products and to construct storage and drying shed needed to produce the product quality required by the market. A feasibility study for an Argeli processing plant was conducted, resulting in the preparation of a business plan and later, establishment of the plant. Numerous visits were made by users to explore the market and establish linkages with buyers, mostly based in Kathmandu, and negotiate quality and prices for the products. Action research was done to study the comparative cash benefit of NTFP cultivation in farmer's fields over cereal crop cultivation.

Results

Many positive changes have occurred in the Dandapakhar area. NTFPs that were previously sold locally, with the collectors receiving low benefits, are now being traded through the NTFP cooperative. This has increased the profit margin for the communities and made it worthwhile even for collectors of small amounts to sell their products. Management of NTFPs is now the role of FUGs resulting in sustainability and the reintroduction of varieties that had become depleted over the years. Legal backing for marketing of community forest products has facilitated the progress of the work. The result of action research on Chiraito showed that the cultivation of this species gave far higher cash benefits than the cultivation of cereal crops and resulted in some farmers allocating a part of their fields for Chiraito cultivation. The planting of 1000 slips of Cardamom, done three years ago by Kalapani FUG, has already given a return of more than Rs. 8000, through the selling of both slips and fruit.

In response to the high profit margins, villagers have become eager to plant NTFPs on both private and community land. During the last three years, more than 100,000 plants of different NTFPs were planted, with Chiraito, Argeli and Cardamom being the most demanded species. As fresh cuttings of Argeli and slips of Cardamom can be directly planted the nursery is currently focusing on the production of Chiraito seedlings and to a lesser extent Lauth Salla cuttings. Simple improved nursery technologies were introduced to reduce the germination time of Chiraito from 3 to 6 months to just 25 days. The cost and benefit of Lauth Salla, which is a tree and therefore requires time to mature, is not yet known but will become clearer in time.

The Argeli processing plant started to operate profitably during its first year. The processing plant was designed to be mobile thereby facilitating maximum use of the available raw material in the area. More than 50% of the raw material was derived from private land (both naturally occurring and planted Argeli) and more than 400kg of processed, dried Argeli bark is now ready for sale, at a fair pre-negotiated price, to KANPOU-Nepal, a company promoting production and marketing of Argeli bark.

Two years ago the NTFP-network initiated the collection and sales of charcoal, for which there is a ready market in Kathmandu. Charcoal produced during the household cooking process was collected by individual households and sold to the cooperative. Training was conducted to improve the quantity and quality of charcoal thus produced. This activity has helped to create small additional incomes for every household, as well as for the network.

Two women groups requested and received training on production of stick incense using local raw materials. A total of 30 women participated in the training and the groups have initiated production, thereby further diversifying the products being produced in the area.

Conclusion

Dandapakhar has gradually become a field-based resource centre, visited regularly by a variety of people working in the NTFP management sector. The results of the work are already being replicated in other parts of the District as well as the country. However, further efforts are needed to consolidate the achievements with NTFP management in Dandapakhar. The full impact of the

work on NTFP management by FUGs is yet to become apparent, but there is every indication that this will be significant. It is expected that substantial employment will be generated in future, benefiting especially the poorest households in the communities.

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