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Economic Potential of Non-timber Forest Products in Nepal: Myth or Reality?

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Abstract: This paper analyses the ongoing discourses and practices regarding the promotion of Non-timber Forest Products (NTFPs). It assesses the existing claims and actual realization of economic potential of NTFPs. NTFP management has been receiving increasing attention in the last few years. Donors, development agencies and user groups have involved with great enthusiasm in different aspects of NTFP promotion, taking this as a panacea for poverty reduction. A critical analysis of the current scale of production and management of NTFPs shows that a misplaced optimism regarding NTFPs' economic potential prevails. The optimistic scenario appears to have been promoted by some development agencies partly to promote their own development enterprises. Moreover, due to the constraining regulations and bureaucratic hurdles surrounding timber trade, both development agencies and users are left without any commercial opportunities to harness NTFPs. Consequently, it appears that the overemphasis on NTFPs has replaced the discourse on timber management. It is argued that NTFP management should be understood as complementary to timber management and not as a substitute for the potential of timber. Although NTFPs have comparative advantage in the high mountain region, timber management yields far more income than NTFPs, particularly in the Terai.

Key words: NTFPs, economic potential, discourse, Nepal.

INTRODUCTION

Following an estimate made by Peters *et al.* (1989) showing that NTFP could fetch higher economic returns than timber (Choudhury 2007, Saxena 2003), forest policies worldwide began to put emphasis on NTFPs since late 1990s, thereby, shifting away from the earlier narrow focus on timber. Till NTFPs received increased attention, conservation of species other than those having timber potential was primarily dealt by biologists, who advocated establishment of conservation areas separate from production forest, livelihood agenda introduced only lately in their initiatives (Guha 1997). In recent decades, with growing concern about conservation, together with rural poverty and sustainable development, researchers, as well as conservation and development organizations, made efforts to bring NTFPs at the centre of discourse (Belcher *et al.* 2005, Subedi 2006). As a result, the governments of several developing countries, including Nepal, received pressure to formulate policies that promoted NTFPs.

The reasons given for promoting NTFPs as against timber are the following. First, although timber is found in surplus in many high altitude forests, it is inaccessible for the city markets because of lack of road

networks in many high mountain areas. In these places, transportation of and trading in high-value NTFPs even in low volume are more cost-effective in comparison to timber. Second, harvesting of NTFPs, particularly those of herb and shrub origins and also parts of trees such as leaves, flowers, fruits, exudates, is ecologically less destructive as compared to the harvesting of trees themselves. Third, timber production needs relatively long time; it may take decades to get a harvest, whereas, NTFPs take shorter time to get a harvest, i.e., they have short gestation period. Generally, poor people who are dependent on forest cannot wait for long periods to get returns from the management of their forests. Fourth, the poor can have better access to NTFPs than to timber because timber may be collected free of cost in most of the Community Forests (CFs), while timber is sold.

Following the changing global focus, forest policies in Nepal for the last two decades have also highlighted NTFPs through various policy documents, public meetings, party manifestos and other documents. It is now time to examine their economic, social and environmental outcomes. The original rationales and promises need to be revisited. For the purpose of reflection and re-examination, the following questions may be pertinent. What has been the role of various

organizations in NTFP promotion? To what extent have the benefits of NTFPs been realized? To what extent have the rationales and promises of NTFP promotion been achieved? What are the challenges so far? Are there any unstated objectives for NTFP promotion? Are there any trade-off with timber management and trade?

In this paper, our attempt is to examine some of these prominent questions. Basically, we use the existing literature and secondary information, complemented by empirical studies in four sites of central and western Nepal. The first part of the paper provides an overview of the economics of timber and non-timber forest products in Nepal, followed by a discourse on NTFPs. We explicate the flip side of NTFP discourse to help the stakeholders to harness the often missed opportunities from the forestry sector, rather than engaging only in discursive spheres. Finally, the discussion and conclusion are presented.

STATUS AND ECONOMIC VALUE OF FOREST PRODUCTS IN NEPAL

Paucity of information makes a comprehensive assessment of the economic value of forest products in Nepal difficult (Subedi 2006, Dhungana and Bhattarai in this volume). A few micro-level analyses are available, but they are mainly focused on the overall condition of forests or overall revenue generated from forest products, or both. For example, Kanel (2004) provides some information on community forestry and DoF (2005, 2006, 2007) compile information on the total royalties received through the formal trade in NTFPs. The forestry sector's contribution to the national (Gross Domestic Product (GDP) is also based on the formal trade, which lacks many aspects of

economic valuation of products and services that are generated from the forest. Nepal Foresters' Association has recently undertaken a study to assess and recommend the valuation methods in Nepal to give a more realistic assessment of contribution of forest sector to GDP of Nepal.

In Nepal, there are more than 700 plant species that have medicinal value, of which 238 are in active use and 100 are traded. The Government of Nepal has kept 30 species in priority, of which 12 are for commercial cultivation and market promotion (AEC/FNCCI 2004, Luintel *et al.* 2004, Subedi 2006, Shrestha and Das 2008). NTFPs are increasingly growing popular in national and international markets as they are important ingredients of several herbal cosmetics, herbal tea, food, medicines, etc. A 1995 survey of producers, traders and processors of NTFPs operating from the eastern border of the country to the mid-western town of Nepalgunj shows that a total of 100 entrepreneurs handled 42 thousand tons of over 100 different NTFP items, equivalent to USD26 million (Subedi 1997). It is estimated that about 10,000 to 15,000 tons of plant products of more than 100 species are exported to India annually, i.e., 90% of total NTFP trade (Edwards 1996).

Devkota (2006), by analysing the royalty contribution of various forest products during fiscal year 2002-04, illustrates that the contribution of medicinal and aromatic plants was only 3.5%; that of the rest of the non-timber products such as sand and gravel was 16.5% and that of timber and fuelwood was over 80%.

Table 1: Total Collection and Royalty to Government from NTFPs in FY2002/03-2004/05

Fiscal Year (B.S.)	Medicinal and Aromatic Plants (Jadibuti)		Other NTFPs (Sand, Gravel, etc.)		Total Quantity (M Tons)	Total Royalty (Million NRs)
	Collected Quantity (MT)	Royalty (Million NRs)	Quantity (MT)	Royalty (Million NRs)		
2002/03	4868	30.37	29245	39.47	34113	69.84
2003/04	2857	15.99	27165	28.32	30022	44.31
2004/05	2985	13.55	29746	64.29	32731	77.84
Total	10710	59.90	86156	133.09	96866	191.99

Source: Devkota 2006

NTFPs are mostly extracted from forest because the domestication of NTFPs is at its infancy stage. Less than 20% of the total collection of NTFPs, including herbal products, comes from private land and the rest from natural forests (nepalnature.com 2005 cited in Devkota 2006).

The emerging middle class and change in lifestyle also have effects on trade in and prospects of NTFPs in Nepal. For example, 'with more and more emphasis on organic way of living and use of natural products in developed countries, NTFPs are likely to be demanded and diversified further in use and commerce' (Subedi 2006). In the context of globalization, it is important that we harness our comparative advantage provided by the unique biophysical and climatic conditions. That is where we can focus on and benefit from the NTFP-based niche products (Gyamtsho 2004). The mainstream literature shows improvement in forest protection and conservation in Nepal because of community-based initiatives, but the commercialization aspect is very weak, resulting in harnessing of minimal benefits from forests and more so from community forests (Bhattarai and Dhungana 2008).

CURRENT DISCOURSES ON ECONOMICS OF NTFP

NTFPs have received high importance in Nepal's forest policies and in overall development planning. The Poverty Reduction Strategy Paper (PRSP), Interim Plan (2007/08-2009/10), new government's policy and programmes, the annual budget of 2008/09, manifestos of political parties, donor documents, including country strategy papers and programme documents of bilateral projects and INGOs, and more recently the documents of Community Forestry Users Groups (CFUGs) highlight the importance of NTFPs in conservation, rural livelihoods and poverty reduction. NTFPs are being given high emphasis in Nepalese publications such as the *Journal of Forest and Livelihoods*, *Hamro Ban Sampada*, *Kalpabriksha*, *Banko Janakari*.

Data Amplify the Potentials of NTFPs

Some available literature forms the basis for heightened significance of NTFPs against timber in terms of economic returns (for example, Peters *et al.* 1989). Though macro-

level studies are very few, World Bank (1994, cited in Bhattarai and Dhungana 2008) estimates that, under an intensive forest management regime, community forests show promising potential through timber and NTFPs. It shows significantly higher level of incremental benefits from NTFPs than from timber when managed intensively for seventy years (see Box 1). This shows that there is almost thirteen-fold incremental income through medicinal plants than through timber; for rattan and bamboo it is more than four times. These figures provide adequate rationale to the advocates and agencies who argue that NTFPs are a remedy to enhance livelihoods, alleviate poverty and contribute to the national economy.

Box 1 Projected Yields and Returns of Community Forests

CFs that could total about 1.8 million ha after 70 years could be yielding products valued at NRs 12.5 billion per year (US\$180 million), taking into account only woody forest products. The incremental benefits were estimated at NRs 2,390/ha/yr (US\$34) for timber, NRs 9,500/ha/yr (US\$135) for bamboo and rattan, NRs 30,700/ha/yr (US\$438) for medicinal plants, and NRs660/ha/yr (US\$9) for fuelwood and fodder.

At macro level, the discourse is generally on the missed opportunities and un-harnessed potential of NTFPs, and most of them list the challenges and constraints on promoting NTFPs. Most of the earlier studies were for generating policy recommendations. Larsen *et al.* (2000) claim that the forest policy of Nepal is very congenial to the development of the NTFP sub-sector, but the problem lies in legislation and enforcement.

Donors and International Organizations Highlight NTFPs

The International Centre for Integrated Mountain Development (ICIMOD) provides information on the existing medicinal and aromatic plants related to global trade as about 60 billion USD in 2000 and expects that it will grow to 5 trillion USD by 2050. The International Development Research Center (IDRC) in collaboration with Ford Foundation, after several years of research on medicinal and aromatic plants, launched

its Medicinal and Aromatic Plants Program in Asia (MAPPA) in 1998, which was devolved to ICIMOD in 2005. Asia Network for Sustainable Agriculture and Bioresources (ANSAB), an organization working and specializing in the areas of biodiversity conservation and NTFP promotion, started its activities in 1992. The Department for International Development (DFID), through its Natural Resources Support Programme, supported several NTFP-related research programmes in the last couple of decades. When donors and international communities shifted their focus to NTFPs in early 1990s, the governments of developing countries and NGOs also increased their efforts in the promotion of NTFPs. Some pilot schemes of NTFP research, cultivation and enterprise development started. The few businessmen and entrepreneurs in Nepal that were there before the development intervention started monopolized the trade in NTFPs in Nepal.

All the donors and international organizations, together with national governmental agencies, nongovernmental organizations and business communities, developed the 'Herbs and NTFPs Development Policy 2004' after a series of meetings and deliberations. As the Secretary of the Ministry of Forest and Soil Conservation described at a workshop in October 2008, 'these organizations which were proactively engaged in policymaking have not shown interest in carrying it forward', i.e., they felt that formulating rules and regulations and enforcing them was solely the task of government.

Publications' Focus is on NTFPs

Several journals and newsletters published from Nepal focus on forest related issues. *Hamro Ban Sampada* (Our Forest Resource), *Prakreet* (Natural), *Prakritik Sampada* (Natural Resources), *Kalpabriksha*, *Journal of Forest and Livelihoods*, *Banko Jankari*, etc. are some of the publications. *Prakreet* is published by Nepal Herbs and Herbal Products' Association and focuses fully on NTFP and its trade. *Hamro Ban Sampada* is published by ForestAction Nepal and covers the issues of forestry, livelihoods, governance and equity; it has brought out some special issues on NTFPs. Almost all the publications have claimed that NTFPs have potential for economic returns, but the

potential hasn't been harnessed due to various problems related to knowledge base, cultivation, harvesting, handling, value addition and marketing.

National Policies and Priorities Give Emphasis to NTFPs

During the Tenth Plan period, the government established seven gene banks (plant resource conservation management areas) and invested in the development and extension of medicinal and aromatic plant processing technology.

The three-year Interim Plan of Nepal (2007/08-2009/10) recognizes the value of NTFPs and encourages foreign investment in the form of joint ventures in case of non-timber-based high value products, including other sectors such as hydropower generation. In addition, it expects forest products, including NTFPs, to contribute to food security; proposes some economic programmes to promote industries based on NTFPs and marketing them. In promoting NTFPs, *Dalit* communities should be given priority. Towards these ends, the Plan sets the target of formulating necessary Acts and Regulations, mapping of markets, revising and implementing with priority the Herbs and Non-Timber Forest Product Development Policy 2004.

The Interim Plan also recognizes that Nepal doesn't have sufficient knowledge of NTFPs to use them as a significant means for reducing poverty. Therefore, action research plans are selected for the programmes for obtaining more knowledge of conservation, development of cultivation technology, promotion and marketing of high value NTFPs.

In the current annual budget (fiscal year 2008/09), the government has set agricultural sector reform as a priority. In this line, the budget statement lauds foreign exchange earning by enhancing export through boosting those forest- and agro-based industries that enjoy comparative advantage. In addition, the promotion of herb cultivation in public land for poverty reduction in the form of a campaign has been planned. Budget is allocated to produce 11.5 million seedlings of medicinal herbs, bamboo, cane and fodder and also planned to establish a herb processing centre in Karnali Zone during the fiscal year.

The fiscal policy has adopted the strategy of 'one area, one species'.

Is NTFP Harvesting Ecologically Less Destructive?

Nepal doesn't have reliable data for estimation or assessment of many NTFPs. The total volume of even very lucrative NTFPs such as *Yarsagumba* (*Cordyceps sinensis*) that could be collected is not known. There is a paucity of information and knowledge related to the properties and chemical constituents of many of the traded NTFPs. In addition, there is very limited knowledge of the propagation, cultivation and sustainable harvesting of many NTFPs. Though the Department of Plant Resources is engaged in research on NTFPs, there is very limited extension service to disseminate research findings to the local people.

A few initiatives have been taken for managing and cultivating NTFPs in Nepal since the early nineties. However, little success has been achieved in commercial management of NTFPs. Out of hundreds of potential NTFPs, very few species have been promoted by the government and cultivated by CFUGs and farmers such as asparagus, broom grass, cardamom, Japanese *mitsumata*, *chirata*, etc. Dabur Nepal, a private company, is supplying seedlings to farmers who are willing to cultivate them and is buying back produce from them. Farmers have, however, complained of lower prices paid by the company as compared to the prices outside Nepal.

In most government-managed forests, NTFPs are collected without consideration of the season, maturity of product, regeneration of species, erosion of soil and destruction to other species. An 'open access' scenario prevails in the area, which encourages competition in harvesting NTFPs without considering maturity or quality of product. While collecting many of the NTFPs from the trees, collectors often destroy the whole tree/plant, severely impacting their regeneration potential and causing ecological destruction (AEC/FNCCI 2004). In community-managed forests, where users collect NTFPs, these problems are not so severe since the timing and method of harvesting NTFPs are often set.

In many cases, CFUGs have done little to increase the production of NTFPs, despite

the possibility of doing so. For example, in Suspa CFUG of Dolakha district, *Machhino* leaves are collected by cutting the plants 20-30 centimetres (cm) from the top. They leave the rest of the long and thin parts (stems) on the ground. The new branches coming from the remaining stems are generally very small. Some users of Suspa CFUG, Dolakha said that if long and thin branches were cut close to the ground (around 10-15 cm from the ground), the new branches would be more vigorous and provide more than double of the existing harvest level.

Local Knowledge of NTFPs and their Management is often Romanticized

Official publications of the government highlight that there is limited know-how of the different species of NTFPs found in Nepal, particularly their identification, distribution, importance and use (Devkota 2006). Not only the local people and NTFP-based traders lack information related to the species or products or derivatives of NTFPs, the forest technicians working in districts or check posts in the trade routes also often lack such knowledge, resulting in the illegal export of and trade in many NTFPs (ibid).

There are several issues related to the information and knowledge about harvesting of NTFPs from natural forests, including: a) local people and many government forestry staff lack the technical information related to the identification, cultivation and harvesting techniques of several NTFP species; b) technical service is not adequately available to the CFUGs; c) since a number of species are available in a small area, it is almost impossible to impart knowledge of all the species from all aspects ranging from its chemical constituents, physiology through harvesting and value addition; d) traditional knowledge available locally is usually stored in the minds of limited number of people and is not shared¹; therefore, the question of further developing such knowledge through generations does not arise.

One example related to the cultivation of NTFPs is noteworthy here. One of the development agencies promoted asparagus

¹ A cultural notion that prevails is that if you share the knowledge of medicinal herbs and the method of medicine preparation, the medicine loses its quality and effects.

in Nawalparasi district as a promising high value product. Farmers cultivated the seedlings supplied by the agency. The production was done in close supervision of the technical personnel of the agency and the production was as expected. After three years, when the product became ready for market, the farmers could neither find an appropriate market nor get the price of the product they were assured before. The quality of production was not what the market demanded. Surprisingly, the variety was different than the one in high market demand. In many cases, development agencies sell the dream of unrealistically higher market prices to the people so that they can achieve their project targets. When people buy the lucrative idea, cultivate the product and explore the market, the price is usually lower than earlier told by such agencies. This disappoints and disillusion farmers, and they often consider this as non-existence of market (Shashikant Jha, *pers. comm.*).

Value Addition and Enterprise Development has been much Talked about than Achieved

Most of the literature, discussions and policy statements are centred on providing incremental income to collectors and local traders through value addition (ANSAB 1999, DoF 2004, Subedi 1997, Banjade and Regmi 2005, Olsen and Helles 1997, Olsen 1998, Subedi 2006, Luintel *et al.* 2004). According to Subedi (2006) 161 plant species are harvested as commercial NTFPs in Nepal. There have been, however, very limited examples of success stories of value addition and enterprise development. Rather, we see several challenges for establishing and running small-scale NTFP-based enterprises. Banjade and Regmi (2005) elaborate how external agency-sponsored NTFP enterprises in the remote hills were on the verge of collapse and suggested assessment of the resource base before creating such false optimism on the ground. Our research in the three CFUGs that are involved in NTFP-related enterprises and trade shows that value addition and establishment of enterprises are not as optimistic as highlighted by the development agencies and discourses around it. There are more challenges than potential returns. Several attempts were made in Nepal to

study the existing NTFP trade (Edwards 1996, AEC/FNCCI 2006), which show that the trade is largely informal; corruption and bribery is rampant; interventions that encourage NTFP trade and enterprise development are limited; international market is non-transparent, keeping the traders and entrepreneurs always at risk; quality control is always a question; many hassles are there in collection, trade and enterprise development etc.

Most of these NTFP-based enterprises established by individuals or communities in different districts are of small scale, having low scale of production with poor yield rate and poor quality product. They have not been able to compete with Indian products due to weakness in business approach, support policies and marketing. Continued support in the form of technical infrastructure and policy is essential for some initial period to these enterprises for their sustainability and expansion. A competitive market environment and quality conscious buyers and sellers are surprisingly missing in the trade, which probably has constrained the market expansion of the products in the third countries (AEC/FNCCI 2004). The lead author of this paper had interviewed several NTFP traders of Mid-Western Region, who told that grading, cleaning and initial processing of NTFPs before trading to India was more of an additional burden to them, rather than increasing the income since the wholesalers at Indian city centres were reluctant to give higher prices for the graded (value added) products. Issue of quality of the products developed by some entrepreneurs in Nepal and traded to third countries (other than India) has often discouraged investment in the area.

More Hassles than Incentive in Trade and Export of NTFPs

The first and foremost issue in the trade and export of NTFPs is that the market is not available at all or not readily accessible for the products. There are several hassles than incentive throughout the market chain while trading and exporting NTFPs. This subsection elaborates some of the hassles.

Trade is largely in raw form and informal

Most of the discussions, studies and literature in relation to commercialization of

NTFPs are found around the issues of trade and export. Despite this focus of studies and discussions, and increasing demand for natural products in the international markets, Nepalese entrepreneurs have not been able to fully tap the value of the products, as 90% of the traded NTFPs is exported to India largely in raw form (Edwards 1996).

There are various challenges and barriers for the trade in NTFPs. The cases of corruption and smuggling of NTFPs are common in Nepal. For example, illegal trade of red sandalwood (*Pterocarpus santalinus*)² rocked the media throughout 2006 and 2007. An important aspect exposed is that the smuggling was done in a coordinated manner and links of the smugglers were shown by the media even with high-ranking security official, and up to powerful politicians (Gautam 2007).

Burden added in transboundary trade

The marketing and trade scenarios are changing. Until 15 years ago, Indian traders were coming to the city centres and collecting NTFPs from the wholesalers. Usually local collectors and sometimes middlemen were bringing NTFPs to the wholesalers at city centres such as Biratnagar, Birgunj, Bhairahawa and Nepalgunj. At that time, it was easy to trade NTFPs, and collectors and middlemen were getting higher prices for their NTFPs than they are getting now (AEC/FNCCI 2004). However, small-scale trade was possible in the past from the remote districts because of low level of awareness and market information about the NTFPs and less developed market infrastructure as compared to now. As revealed by the traders of the mid-western region, the trade scenario has worsened now because NTFPs should be brought to the doorsteps of Indian traders. This makes the traders from Nepal bear all the burden of developing permits, certificates of maintaining standards such as certificate of origin, phytosanitary certificates (pest risk analysis), etc. (Banjade 2004).

² It is called *Raktachandan* in Nepali and is listed under Appendix II of CITES. The harvest, transport and trade of the species are banned.

Vulnerability has increased due to non-transparent market

Many NTFPs that are traded have market outside of the country and many of them are still conspicuous in terms of their actual use and further manufacturing. There are cases when the market boon of certain species attracted farmers to cultivate in their lands but later the price became too low to cover the opportunity cost of the land used for cultivation (for example, *Swertia chirata*). The symptoms of 'Dutch Disease' are observed in some cases, i.e., market boon of some species has affected the enterprise and trade in other species. For example, due to high price of *Yarsagumba* (*Cordyceps sinensis*), people of Dolpa have abandoned previously very attractive enterprise of Seabockthorn juice making (Manisha Rajbhandari, *pers. com.*). *Yarsagumba* is fetching such a large income that other NTFP-based enterprises have become less lucrative to local people. The market of *Yarsagumba* is in China alone and people know little about its market (demand, etc.), making their livelihoods vulnerable – nobody has thought of the alternatives when there would not be a market for the species for some reasons³. In other words, though this in a way is positive that the local people have better opportunities, but at the same time, they are increasing the risk and vulnerability associated with non-transparent market and little space for articulating production (again little known ecology and production of the species).

Low bargaining power relates with lower market benefits

Complaints related to NTFP commercialization and trade are basically on the part of getting appropriate market price and, for that, an increasing capacity of the stakeholders involved for bargaining. There seems to be low power for local collectors as well as individual or group traders/entrepreneurs in negotiating with the international players. Local people feel comfortable when they find the market

³ If the collection and sale of *Yarsagumba* were stopped for a year in Dolpa, says a politician-turned-trader of *Yarsagumba*, it is most likely that people of the area would starve to death since they have stopped agricultural production and other enterprises.

within their vicinity or at least in the closest city centres. Local markets play an important role in enabling forest-dependent households to realize a significant part of their cash income through sale of NTFPs (Ndoye *et al.* 1998). Unfortunately, contrary to products such as timber and fuelwood, there is little space in local market for most of the NTFPs found in Nepal.

Limited research and information on NTFPs

Hamro Ban (Our Forest), an official publication of the Department of Forest, the government organization responsible for issuing NTFP collection permits, collecting revenues of the NTFPs, providing transportation and export permits and monitoring NTFP-related activities has accepted the following situation of NTFP trade in Nepal:

Nepal does not have the actual record of: a) which species are collected and consumed locally for what purpose; b) how much of the collected amount is traded in the local market (within Nepal) and how much is exported; and c) what is the total annual financial transaction of NTFPs. Because of limited documentation, there are challenges in sustainable market promotion (Devkota 2006).

Bureaucratic hassles to transportation of NTFP discourage its trade

One of the justification for highlighting low volume high value forest products (i.e., NTFPs) in high altitude areas is that transporting them is relatively easy than timber in the region. The areas are far from road heads or city centres, making transportation of bulky products impossible. NTFPs are transported manually or on the back of mules, yak or goats/sheep. However, there are more barriers other than physical access in the NTFP trade which discourage transportation of and trade in NTFPs such as, a) multiple layers of permits and checkpoints for verification have increased transaction costs and promoted corruption; and b) cartel by transporters/airlines in freight charge and uncertainty of product transport.

Distributional equity is not guaranteed

Research has shown that collectors/farmers are getting extremely low share of benefits

from NTFP trade (Subedi 2006, Bhattarai *et al.* 2003). The incremental benefits could not be accrued by the poorest households, and women lose their space in collecting NTFPs when the species or product that was being used for household use finds a market value (AEC/FNCCI 2004).

The trickle-down effects of income through the sale of forest resources to the poor people are generally disproved by research. Our research in four CFUGs also shows that an additional income from forest resources does not guarantee that the poor will have access to it. So, increasing production in itself is an important aspect to NTFP management and enterprise development, there are structural barriers to poverty reduction, which need to be removed to increase the access of the poor to forest resources, including NTFPs. Some of the earlier studies show that inequity in benefit-sharing prevails in CFUGs (Malla 2000, Bhattarai *et al.* 2003) while in some cases, the poor seem to have sacrificed their livelihood strategies (which were forest based) for the sake of wider welfare of communities through community forestry (Banjade *et al.* 2006). Likewise, Kanel *et al.* (2003) have mentioned that poor users do not get as much benefit from community forests as others. Similarly, Adhikari and Lovett (2006) show that the transaction cost of managing community forests is borne more by poorer sub-groups than the richer and middle income sub-groups of CFUGs. These are important issues to deal beforehand during commercialization of NTFPs in Nepal.

The audit report of one of the CFUGs under study (Sushpa CFUG in Dolakha district) for the fiscal year 2005/06 shows that about 4% of its total expenditure was used to support the poorest users while they are planning to increase it to about 5.5% for the current fiscal year. Their constitution, however, has declared it to be at least 20%. As is the case in Dolakha, our other cases also show that the support to the poor is generally done when external agencies provide money exclusively for them. There are very few evidences which show that CFUGs are providing support to the pro-poor activities from their own income sources, though anecdotal innovative pro-poor initiatives exist throughout the country.

Engagement of the poor in the collection and trade is also not found in the NTFP rich CFUG in Dolakha, they are almost excluded (see Box 2) and are receiving less benefit from it as compared to other members.

Box 2 NTFP Collection and Sale in Suspa CFUG, Dolakha

The CFUG is rich in NTFPs. Almost 50% of the households of the CFUG are engaged in collecting NTFPs, which provides better opportunities for the members seasonally. That is, they get more money each day than they get from the daily wages in the village. The wage rate in the area is about NRs 50 (approx. 0.75 USD) per day. From the collection of *Lokta* (*Daphne bholuwa*), a person can earn ranging from NRs 125-200 a day (2-3 USD). There are other NTFPs such as *Machhino*, *Nigalo*, *Argeli*, mushroom, etc. from which many of the medium and rich class users are getting better return. Surprisingly, none of the poorest, households were involved in the collection of NTFPs. When asked why they were not collecting, one of the poorest women said:

We don't know whether that would fetch such a lucrative return. We even don't know when it is opened to collect. We heard that this creates itching during collection".

DISCUSSION**Exaggerated Optimism on NTFPs Created by Development Agencies**

The conservationists in recent years attempted to show that promotion and commercialization of NTFPs could contribute conservation, most often with supporting livelihoods of the rural poor. They are able to draw the attention of donors, development agencies and, in recent years, local forest management institutions such as CFUGs. The discourse is so much streamlined that NTFP has become buzzword in the forestry sector. In most parts of Nepal, CFUGs themselves have involved in the production and management of NTFPs with great enthusiasm.

The concern of additional contribution from forest in addition to the timber (most often without reducing timber stock from the forests) receives acceptance of NTFPs promotion discourse which techno-bureaucrats promoted without due consideration of its potential. The logic of voluminous nature of timber which is not accessible in remote hills and mountains does not fit with the condition of Terai, though the discourse of NTFPs is equally loud in the region as that of hills and mountains.

NTFPs are rationalized as goods for linking conservation with livelihoods, and government bureaucracy keeps soft angle while dealing with NTFP trade from the CF than timber export. Government and other agencies are providing programmes such as research, education (training and other awareness programmes), enterprise

development, poverty reduction, etc. with specific focus on NTFPs and not on timber. Since the government is reluctant to promote timber management, other development agencies are merely left with the option of supporting NTFP development rather than timber.

Inconsistency Exists in Rhetoric and Reality

As a response to the widespread call for participatory policy making (Ojha 2001, Ojha *et al.* 2003, Bhattarai *et al.* 2003, Larsen *et al.* 2000, Ojha 2008), the government of Nepal could come up with a more progressive separate policy with focus on NTFPs. However, unresponsiveness of the government in developing regulatory instruments to implement the much hyped Nepal's Herbs and Non-timber Forest Products Development Policy 2004 is criticized by the stakeholders in different forums. It has been discussed dozens of time about harmonization of regulatory framework in line with the policy but have been failed to do so (Bhaweswor Das *pers. com.*) even after over four years of policy formulation. One of the officials of the Ministry of Forest and Soil Conservation, who is responsible for dealing with NTFP related issues, told in a workshop that the donors and other development agencies were not 'walking the talk' and reluctant to support in facilitating the development of a regulatory framework. According to him, they invested a lot of energy and resources in developing the policy but remained reluctant in formulating related acts and regulations. However, a few policy responses observed in this period such as lifting ban

on the collection and sale of *Yarsagumba* in raw form (which was banned before), reviewing royalty rates for some NTFPs (royalty of some of the traded NTFPs was not congruent with the market price of the product), etc.

Similarly, in the early stage of community forestry, a largely protectionist approach was adopted, leaving very limited space to the communities for active management. The focus was paid on creating only new institutions and less attention was given for providing technical and regulatory support to these institutions by the government (Acharya 2003) to harness optimal benefits from the management of forest. In case of the community forestry programme, the issue for initiating the programme was not on increasing return of investment from the forest but on halting degradation of forest which was largely attributed to the failure of state's people alienating policies. But when people invested their time and resources in creating forest assets, their expectations for higher return was legitimate. Some might argue that the government is promoting discourse on NTFPs to divert the likely demand from communities for greater returns from timber trade (as the main possible product to be marketed), which was not the genuine aspirations and commitment of the government.

Second, when we look at the Operational Plans (OPs) of the CFUGs till early 2000s, we observe that they were largely prepared by the government forestry staff and almost no attention was given for promotion of NTFPs. The provisions made for silvicultural operations were focused on timber production from selected species. However, there is the observable paradox of government forest service which emphasizes timber in OPs on one hand and discourages CFUGs for harvesting timber to sell in the external markets on the other. Several hurdles exist in the trade in timber and fuelwood, although they are sold within the country.

Similarly, the government has done very little in the promotion of market for the NTFPs. We observe the situation of 'buyer's monopoly', and individuals and groups involved in the trade are largely cheated, humiliated, discouraged and punished. No investment and insurance mechanisms have

been developed. These all show that the government only wants the discourse on NTFPs should go on but is reluctant in facilitating the process to harness benefits from the NTFP production, processing and trade.

Inadequate Appreciation of the Width and Depth of Challenges

As we have discussed in the previous sections, there are more challenges than opportunities to harness the potentialities of NTFPs. These challenges are in diverse aspects, including a) Market: unlike timber, NTFPs do not have local market and require export through India and other countries, involving long value chain. In the process issues such as ensuring quality of products, dealing with tedious processes of quarantine and pest risk analysis, and market imperfections (buyers' monopoly, non-transparent markets, low support mechanisms from the government in case of disputes or losses, etc.); b) Regulatory instruments: a number of check points in route to the market centers, long and corrupt bureaucratic processes for preparation of documents required for export, new conditions and parameters of IEE, EIA, etc. require harmonizing OPs of CFUGs which is beyond the capacity of groups themselves; and c) Entrepreneurship: access to information, know how, government support system, Scale: ecological and institutional inadequacy to meet the scale of trade on NTFPs.

Discourse of NTFP Promotion has Put Timber in the Shadow

Surprisingly the focus of discussion and initiatives in NTFPs has sidelined the potential of 'timber' as a key product of forests in Nepal. Aspects of increasing total production and commercialization of timber such as sustainable harvest, value addition and market links are not becoming the part of discussions in the recent decades. While there are reports which show the vulnerability of trade and enterprise development of NTFPs (Bhattarai *et al.* 2003, Ojha and Bhattarai 2003, AEC/FNCCI 2004), limited efforts are made in relation to the marketing of timber.

The logic of additional contribution from forest through the promotion of NTFPs without challenging political economy around timber stock has ultimately helped extend the control of government over forest resources. We need to explore the possibility of transforming techno-bureaucratic perspectives who have amplified the discourse of NTFPs without due consideration of its real potential just because they would like to minimize the questions around timber. The logic of voluminous nature of timber, which is not accessible in remote hills and mountains, does not fit with the condition of Terai where the discourse is equally loud as that of hills and mountains. Moreover, due to constraining timber trade regulations and bureaucratic hurdles around timber trade, both the development agencies and users themselves are left only with NTFPs to harness commercial opportunities. Consequently, it appears that the over-emphasis on NTFP management has replaced the discourses on timber management.

CONCLUSION

Records of formal trade in NTFPs and the pertaining challenges show that the optimism seen in the discourse on NTFP is not sufficiently grounded, and the false optimism promoted is engaging thousands of individuals and groups. Though the government and other development agencies exaggerate NTFPs as a panacea for resource conservation and poverty reduction, this is largely a rhetoric which raises expectations of the people. The reality, however, is that the initiatives taken by these agencies are far from realizing the glorified potentials of NTFPs. The genuineness of the endeavours of these organizations, therefore, is questioned since they are not yet putting adequate efforts on enforcement of the policy. The regulatory frameworks are not yet harmonized or developed separately in line with the policy. The focus is also limited to addressing the mounting challenges (regulatory and others) on cultivation, harvesting, value addition and marketing of NTFPs (and also timber and fuelwood).

In the field, while promoting NTFPs discourse, timber management part is getting less attention. It would have been

better that the CFUGs could put energy and resources in both timber and NTFP management and had accessed the market more aggressively. In other words, the NTFPs should be understood, managed and traded as an additional product and opportunity to the timber rather than amplifying it as a substitute. Although NTFPs have comparative advantage in some hilly districts, in many mid hill and more so in Terai timber management produce far more income than NTFPs. The need is to make concerted efforts in releasing barriers of marketing of and trade in forest products, and supporting and facilitating individuals and communities to harness benefits from forest products. We would like to note that the purpose of this analysis is not to undermine the value and potentials of NTFPs but to caution the agencies concerned to re-examine their perspectives and practices so as to get benefits from the hidden treasures like NTFPs rather than romanticizing them through exaggerated discourse.

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