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# Factors Influencing Institutional Arrangements for Effective Management of Non-timber Forest Products in Community Forest User Groups of Nepal

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#### Introduction

In rural Nepal non-timber forest products (NTFP) contribute up to 90% of households' annual income (Bista and Webb 2006) and one fifth of the revenue from the forestry sector (HMG 2003). Realizing its economic importance, Nepal's NTFP development policy of 2004 emphasizes its commercial management in community forestry as a means for poverty reduction (HMG 2004). Community forests are national forests handed over to the local communities to manage, use and sell excess forest products. In recent years, NTFP management in community forests became an important approach aimed at reintegrating marginalized communities into the mainstream of development (HMG 2004). In order to reduce poverty, the respective policies encourage community forest user groups (CFUGs) to consider NTFP management plans and provisions in the CFUG operational plans. The inclusion of such plans is determined by the institutional arrangements in CFUGs. Acharya (2005) has indentified different factors such as resource characteristics of forest products, community dynamics within the CFUGs, occupation type that influence the development of institutional arrangements in CFUGs. However, it is yet to be known which factors influence arrangements for pro-poor commercialization of NTFPs in CFUGs. Therefore, this paper analyzes the factors at three levels of NTFP management: production, marketing, and benefit-sharing.

# General overview of the study site

The study was conducted in Kalobhi and Mahadevthan CFUGs, Dolakha district.. The district is located about 150 km east from Kathmandu. Kalobhir lies very close to Jiri Bazaar, which is the second biggest town in the district, whereas Mahadevthan is located far from any town. The economic status of the users of Kalobhir is better than that of Mahadevthan, because it lies closest to a town. For this reasons, users had relatively easy access to the alternative employment opportunities. In both CFUGs the general assemblies had identified its poorest users. In Kalobhir, external agencies, such as governmental and non-governmental organisations (GO/NGOs) had provided technical support for inventorying forest products, preparing NTFP management plans, strengthening market linkages, and conducting pro-poor programs. In Mahadevthan, they were only involved in the handing over of the forest to the community and conducting few forest management trainings. The general overview of the studied CFUGs is presented in Table 1.

## **Methods**

The data was collected between October 2007 and April 2008. The institutional arrangements associated with effective management of NTFPs and factors influencing such arrangements were identified by reviewing the CFUGs' records and through key informant interviews. Fourteen key informants were snowball sampled (Bernard 2002) across various groups of stakeholders and interviewed by using a checklist.

Table 1: General characteristics of the selected CFUGs

CFUG Attributes/ Name of CFUG	Kalobhir	Mahadevthan		
Forest area (ha)	545	207		
Number of Household	215	125		
Representation of marginalized users in the CFUG committee	*Dalit, women and poor Women			
Number of the poorest users' household	19	3		
NTFPs in trade	Daphne bholua (Lokta), Edgeworthia gardneri (Argeli), Gaultheria fragrantissima (Machino), Swertia chiraita (Chiraito), Giardina diversifolia (Allo), mushrooms	Daphne bholua (Lokta), Pine cone (Simta), Lichen (Jhyau), Swertia chiraita (Chiraito), Valeriana wallichaii (Sugandawal)		
Time required to reach the nearest town from the CFUG	About 10 min. on foot	About an hour and half on foot, then three hours by public transport		
Associated enterprises	Everest Gateway Handmade Paper Enterprise, situated within the CFUG.	None		
Name of external agencies involved	Asia Network for Sustainable Agriculture and Bioresources (ANSAB); Ecology Agriculture and Rural Development Society (ECARDS); District Forest Office (DFO); Federation of Community Forest Users' of Nepal (FECOFUN); Nepal-Swiss Community Forestry Project (NSCFP)	District Forest Office (DFO); Federation of Community Forest Users' of Nepal (FECOFUN); Nepal-Swiss Community Forestry Project (NSCFP)		

<sup>\*</sup>Dalits are so-called untouchable or low-caste people according to Hindu religion.

The key informants consisted of two NTFP collectors and two committee members from each CFUG, two traders, two entrepreneurs, and one NGO representative and one DFO personnel from the district. In addition, informal discussions with individuals, observations, and group discussions were employed for information collection (Acharya 2005). All interviews and group discussions were recorded and transcribed. The transcript was then coded using Atlas 5.0 ti qualitative analysis software. As suggested by Miles and Huberman (1994), a mixed approach comprising both inductive and deductive coding was employed. This was followed by a cause and effect analysis between the codes, and finally the factors influencing the institutional arrangements were identified.

#### **Results and discussions**

# Factors influencing the arrangements for pro-poor commercial NTFP management

The study has identified five determining factors which contribute to the effective management of NTFPs in CFUGs. The factors are: (i) involvement of external agencies; (ii) high economic status of decision makers; (iii) established market linkages; (iv) inclusion of representatives in the CFUG committee; and (v) geographical locations of the CFUGs. The influence of these factors on institutional arrangements at the three levels of NTFP management in CFUGs is presented in table 2.

#### NTFP management in community forest

The involvement of external agencies in CFUG positively influenced the development of institutional arrangements for managing NTFPs in community forest. Their facilitation and financial supports had helped Kalobhir in developing detailed management plans for their NTFPs whereas such plans were lacking in Mahadevthan. Lack of technical or financial resources, or both, in the CFUGs and absence of such support from external agencies hampered the preparation of an inventory and management plans. Banjade et al (2007) also highlight the

important role of external agencies in the development of community forestry by providing material and technical support. The involvement of external agencies was further determined by the geographical location of the CFUG. According to an NGO personnel, the lack of financial and human resources made it difficult to conduct programs in remote CFUGs. Furthermore, the high economic status of decision maker in CFUGs had a dual impact on the development of management plans. The decision makers used to give more importance to the revenue generating NTFPs. For example, Kalobhir CFUG had detailed management plans for *Lokta (Daphne bholua)* and *Argeli (Edgeworthia gardneri)* which were exportable NTFPs and were generating revenues whereas mushroom being locally consumable NTFP did not have such plans. For most of the economically better-off users who generally were the decision makers in CFUGs (Thoms 2008), mushroom did not play a role in their livelihoods either as a commercial or as a subsistence product. For this reason, management plans of mushroom were overlooked in the operational plans of the CFUGs.

Table 2: Institutional arrangements at different NTFP management levels and factors influencing them

NTFP management level	Institutional arrangements	Factors				
		Involvement of external agencies	Established market linkages	High economic status of decision makers	Inclusion of representatives from poorest users in CFUG committee	Geographical location of the CFUGs
NTFP management within community forest	Presence of detailed NTFP management plan	+	NA	+/-	NA	-
NTFP marketing	Agreements for regular marketing	+	+	NA	NA	-
NTFP-related propoor programs	Allocation of community forest land to the poorest	+	NA	NA	+	NA
	Support to the poorest for purchasing shares of enterprises	+	NA	-	NA	NA

NA: Not Applicable

#### **Marketing of NTFPs**

Established market linkage was positively contributing to the successful marketing of NTFPs in the studied CFUGs. As the paper enterprise was located in Kalobhir and the CFUG had signed an agreement with an enterprise for supplying raw materials, they had easy access to market for *Lokta* and *Argeli*. Consequently, the CFUG was actively managing and regularly marketing these NTFPs. However, establishing and operating processing enterprises in rural areas may face many challenges related to finance, technology, coordination with external markets, etc. (Subedi 2006). In such cases, involvement of external agencies could be inevitable. However, the tendency of external agencies to work in accessible areas could be a constraining factor in establishing such enterprises in remote areas. By virtue of the location and low involvement of external agencies, Mahadevthan had neither any enterprise nearby nor an agreement with any; hence, it depended on individual traders operating in the area. As the individual traders did not provide regular service trade in NTFPs couldn't take place regularly.

# NTFP-based pro-poor programs

In the studied CFUGs, the inclusion of users from marginalized communities in the executive committees of CFUGs was one of the most important factors positively influencing the execution of pro-poor programs. In Kalobhir, the poorest users were organized into a subgroup, a member from the subgroup had represented the poorest users in the executive committee of the CFUG. The inclusion provided an opportunity to the poorest users to raise their voices at the committee meetings and ensured that NTFP-related activities benefited them. Gauli and Rishi (2004) have also recommended a similar approach

to include the poor in the executive committee, along with capacity-building training for them. Despite the identification of poorest users in CFUGs, Mahadevthan did not have their representatives on their executive committee. Furthermore, they did not have any NTFP-related pro-poor program.

The involvement of external agencies, their facilitation and financial support resulted in the execution of one or the other pro-poor program. In Kalobhir, external agencies had supported all the 19 poorest users to purchase shares in the handmade paper company and provided technical and financial support to cultivate *Argeli*. Although most of the non-poor users, including CFUG committee members, did not favour such programs they were conducting such program to keep good relation with external agencies. The members can exploit their good relation with external agencies for their personal benefits. Hence, committee members want regular involvement of external agencies in their CFUGs. In such cases, external agencies can influence committee members to develop and implement propoor programs.

## Conclusion

The involvement of external agencies is an essential factor for the effective management of NTFPs in CFUGs. They can play an important role in developing detailed NTFP management plans and their marketing. The patron-client relationship between external agencies and committee members helps the external agencies to influence CFUG committee members to invest the community funds in pro-poor programs. The study also found that the inclusion of representatives of marginalized users in the executive committees positively influences committee decision to their favour.

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