

## Fostering Livelihoods: Exploring the Scope and Challenges of Non-Timber Forest Products in Magar Community

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### Abstract

The paper aims to investigate the management practices and income-generating potential of non-timber forest products (NTFPs) in promoting the livelihoods of the Magar community in Janjang Village, Sindhuli. The Magar community, a marginalized indigenous nationality in Nepal, relies on NTFPs harvested from nearby forests. The study evaluates the commercial significance of NTFPs and the involvement of Magars in their trade, particularly with India. Through an empirical approach, the research involved unstructured interviews with fifteen local households to gather information. Findings indicate that while the collection and trade of NTFPs may not be a lucrative income source for individuals with higher landholdings, food security, and alternative income streams, it holds significant importance for Magars lacking access to land and alternative sources of income. It is a very nominal price offered for the NTFPs collected by the Magar community which does not even cover the labor costs (Piya et al., 2013). In response to the identified challenges, the community has recognized the need for collective action and established the Magar Community Support Cooperative Limited (MSCL) to facilitate and enhance NTFP trading. The cooperative has implemented institutionalized practices to streamline the processes involved in the collection, management, marketing, and trading of non-timber forest products (NTFPs). This cooperative structure aims to improve the overall efficiency and effectiveness of NTFP-related activities, fostering sustainable livelihoods for the Magar community in the Janjang Village of Sindhuli.

**Keywords:** NTFPs, trading, livelihood, challenges, income, Magar community, MSCL

### Introduction

Non-timber forest products (NTFPs) serve as a vital source of livelihood for the indigenous communities in Nepal. The rural populace relies on an array of forest products, including food, fodder, litter, fuel, fruits, and herbal resources. Numerous studies conducted by various organizations underscore the substantial dependence of a significant proportion of the global rural population on forest resources. Approximately 1.6 billion people, with 350 million residing in or near dense forests, rely on them to a high degree (Piya et al., 2013). Beyond subsistence uses, the trade of NTFPs contributes significantly to the cash income of the rural population in Nepal. Forests in the hills and mountains of Nepal harbor a rich diversity of medicinal and aromatic plants. The commercialization of these plants and the exploration of

new markets have transformed NTFPs into a crucial source of income for many rural communities in Nepal. Local communities in remote rural villages commonly gather these NTFPs, selling them to road-head businessmen. Remarkably, nearly 90 percent of these products are exported to India in crude form, later supplied to other countries by Indian wholesalers (Piya et al., 2013).

Magars, residing in challenging regions in the hills of Okhaldhunga, Udayapur, Sindhuli, Rolpa, Rukum, and Baglung, heavily depend on forest resources. With small landholdings and a practice of shifting cultivation or the Khoriya system, agriculture serves as a major livelihood source but is insufficient to provide year-round food security. Magars adopt a diversified livelihood strategy, including animal husbandry, crop production, wage labor, NTFP collection and trade, handicrafts, skilled and salaried jobs, and remittance. In the current scenario, the protection, collection, and trading of NTFPs have emerged as primary occupations for Magars in the study area.

NTFPs encompass a diverse array of forest-derived items, excluding timber and firewood, such as leaves, shoots, juice, barks, flowers, cotton, tannin, gum, resin, fruits, seeds, and roots (Lamichhane et al., 2021). The burgeoning popularity of NTFPs extends both nationally and internationally, particularly for herbal products like tea, food, and medicines. This rise in recognition underscores the increasing potential of NTFPs to boost the local economy, particularly among indigenous nationalities in economically disadvantaged communities in Nepal. These products play a multifaceted role in supporting livelihoods, reducing poverty, and fostering economic growth in rural settings.

This paper endeavors to explore the potential of NTFPs in augmenting the income levels of the local Magar community. Drawing from existing literature and secondary information, supplemented by empirical studies conducted in Janjang, Sindhuli, the paper offers insights into the potential as a source of income, the role of NTFPs in forest conservation, and the institutional strength of the Magars' cooperative in enhancing the livelihoods of the Magar community in Janjang, Sindhuli.

### **Objectives**

The major objectives of the paper have been mentioned below:

- a. To assess the commercial importance and role of Magar in the trading of non-timber forest products (NTFPs) for income generation, and
- b. To explore the management practices and scope of non-timber forest products in promoting indigenous community livelihood within the Magar community.

### **Method**

The study employed a mixed-method approach, combining quantitative and qualitative methods, and relied on descriptive analysis to explore and depict the scope and challenges of NTFPs in the Magar community. Structured interviews and observations were conducted to gather information on household demographics, socio-economic characteristics of the Magars, NTFPs trading, and income generation patterns from NTFPs. A total of fifteen Magar households were randomly selected for participation in the study. Notably, all households chosen for the survey were situated in areas devoid of transportation facilities and electricity.

To obtain insights into the marketing and trading of NTFPs, key informant interviews were conducted with three members of Magar support cooperatives within the study area.

Additionally, secondary sources were consulted to supplement the study with additional information regarding the availability and significance of NTFPs in the Magar community.

### Description of Study Area

The research was conducted in Jangjang village, situated within the Fikkal Rural Municipality of Sindhuli district. Magars constitute the predominant population in this locale, accounting for 75 percent of the total inhabitants. Jangjang Village is geographically linked to the Mahabharat range of Nepal, extending to the foothills of the district. Other adjacent hilly villages, including Khangsang, Ratnawati, Solpa, and Solidanda, are also inhabited by Magars. However, these areas are yet to be connected by motorable roads and electricity, posing challenges for the Magar community in managing NTFPs in terms of collection, marketing, and trading.

Jangjang Village, situated between 1200 and 1500 meters above sea level, serves as a base for the Magar community, who frequently explore neighboring forested areas to gather vital NTFPs. These forests, particularly rich in medicinal and aromatic plants, thrive at elevations ranging from 1000 to 2000 meters. As a result, the vicinity of Jangjang Village hosts a wide variety of commercially valuable NTFPs.

Recognizing the untapped potential of the NTFP market in the area, the Magar Support Cooperative Limited (MSCL) was established in Jangjang. The cooperative received financial and technical support from the Nepal Community Reconstruction Programme (NCRP) and the Rufford Small Grant Foundation, aiming to bolster cooperative initiatives. Currently, MSCL is owned and operated exclusively by the Magar community, with registration at the Cooperative office. Shareholders of MSCL include Magars from Khangsang, Jangjang, Solidanda, and Ratnawati.

## Results and Discussions

### NTFPs in Jangjang Village

The study was conducted in Jangjang Village where it was reported about 30 species of NTFPs were collected and traded. Allo, Amala, Ban Lasun, Ban Pyaj, Barro, Bel, Bojo etc are the major NTFPs found in the area. These major species of NTFPs are mentioned in the Table 1.

**Table 1**

*List of NTFPs Traded From Jangjang*

Local name	Common name	Scientific name
Allo	Himalayan Nettle	Girardinia diversifolia
Amala	Gooseberry	Phyllanthus emblica
Asuro	Malabar nut	Justicia adhatoda
Ban Lasun	Himalayan Onion	Allium wallichii
Ban Pyaj	Wild Onion	Allium spp.
Barro	Bedda Nut	Termanaliya bellerica
Bel	Stone Apple	Aegle marmelos
Bhojpatra	Himalayan Birch	Betula utilis
Bojo	Sweet Flag	Acorus calamus
Chiraito	Chiraito	Swertia chiraita
Chiuri	Butter Tree	Deplokhemia butyracea
Chutro	Berberis	Berberis spp.

Local name	Common name	Scientific name
Dhupi	Juniper	Juniperus spp.
Gurjo	Tinospora	Tinospora sinensis
Harro	Chebulic Myrobalan	Terminalia chebula
Jhyau	Lechen	Lycopodium spp.
Kala Dana	Morning Glory	Ipomea spp.
Kalikath	Blueberry Myrtle	Myrsine semiserrata
Kaulo	Fragrant Bay Tree	Persea spp.
Khote Salla	Chir Pine	Pinus roxburghii
Kurilo	Asparagus	Asparagus spp.
Loktha	Nepali Paper Plant	Damphne bholua
Maha	Bee Haney	
Main	Bee Wax	
Pachaule	Marcsh Orchid	Dactylorhiza hatagerea
Pakhanbed	Hair Bergenia	Berjenia ciliate
Pani Amala	Fishbone Fern	Nephrolepis cordifolia
Rato Chyau	Reishi Mushroom	Ganoderma lucidum
Rittha	Soapberry	Sapindus mukorossi
Sajiwan	Physic Nut	Jatropha curcus
Sisnu	Stinging Nettle	Urtica dioica
Tejpat	Bay leaf	Cinnamomum tamala
Timur	Prinkly Ash	Zonthoxylum armatum
Titepati	Common Mugwort	Artemisia vulgaris

*Note.* Magar Support Corporative Ltd. (2021)

### Collection and Trading Practices of NTFPs in the Study Area

In Jangjang, Magar households engage in the collection and trade of non-timber forest products (NTFPs) primarily for subsistence, with a lesser emphasis on commercial activities. The majority of Magar households covered in the study rely heavily on NTFPs for their day-to-day needs, including fodder, fuelwood, litter, food grains, vegetables, and medicinal resources. Simultaneously, these households participate in the commercial trade of NTFPs, with approximately 70 percent of them engaging in such activities. The study identified around 25 types of NTFPs being collected and traded, including Kaulo, Chiuri, Daar, Kurilo, Pani Ammala, Chiraito, Dalchini, Tejpat, Allo, Harro, Barro, Bee Honey, and Amala. These products are traded for various purposes such as fruits, butter, flowers, roots, leaves, bark, medicinal applications, incense, cosmetics, spices, fibers, vegetables, and tea. Notably, Chiuri Ghee, Bee Honey, Amala, and Kaulo experience high demand in the market, serving as significant sources of income for the Jangjang community. During the data collection period, the trade of Kaulo and Daar bark reached a peak, with several tons being traded from Jangjang annually.

The study highlights that collectors, despite being integral to the value chain, experience the least profit margin, with middlemen in the market channel reaping higher profits. Collectors often find themselves in a vulnerable position within the NTFP market chain, lacking bargaining power. Even when collectors manage to bypass middlemen, there is no guarantee of a higher profit margin. The Magars collecting NTFPs face challenges related to capital, knowledge, risk-bearing capacity, legal rights, and other factors, limiting their ability

to capitalize on market opportunities. Despite these challenges, collectors play a crucial role in preserving a robust NTFP market and trade by shouldering the risks of storing and providing outlets for the sale of these products.

### **Scope and Contribution of NTFPs in Promoting Income and Livelihood**

According to the research findings, the average revenue obtained from NTFPs is approximately 25 percent, although there is noticeable diversity among the households surveyed. Several factors play a crucial role in determining the yearly income from NTFPs, such as the educational attainment of the household head, their level of food self-sufficiency, and additional income derived from sources other than NTFPs. The study suggests that households headed by individuals with higher levels of education tend to rely less on NTFPs for income. Similarly, increased levels of food self-sufficiency and income diversification are associated with reduced dependence on NTFPs.

The ownership of millet land, being the most fertile category compared to upland and khoriya, exhibits a negative correlation with income from NTFPs. Greater millet land ownership contributes more to crop production and enhances household food self-sufficiency. Consequently, households with larger paddy land holdings are less reliant on NTFPs as an income source.

Despite the labor-intensive nature of collecting and trading NTFPs, the associated costs, particularly family labor, are not adequately factored into pricing. This results in collectors having minimal to no profit margin. Despite these challenges, collectors engage in this activity due to the absence of alternative local income opportunities. In a cash-constrained economy, even modest earnings hold significant value in fulfilling subsistence requirements. However, there exists a high demand for NTFPs both nationally and internationally, especially given the rich species diversity of medicinal and aromatic plants in Magar settlements.

To enhance the income potential of the Magar community in Jangjang from NTFP business, measures such as providing primary processing and storage facilities, conducting trainings, and capacity building to understand legal requirements and enhance bargaining power are essential. Community-based institutions like cooperatives can play a pivotal role by bringing households together, empowering them, and providing a collective voice for bargaining with intermediaries.

In the fiscal year 2020-21, Jangjang played a crucial role in national revenue collection through the trade of medicinal plants, contributing ten lakhs of rupees. Notably, timur, Harro, Barro, and Dalchini comprised 30 percent of total trading, while Asuro, Alla, Amala, Chiraito, Kurilo, Bee Honey, and Lokta contributed 25 percent to trading income. The Magar Support Cooperative Limited (MSCL), an established community-based institution, could be developed as a collection center at the roadhead, and short-term financial support and training could significantly boost its bargaining power and competitiveness in the NTFP market.

Empowering MSCL members through business and institutional management training could improve its profit margin, making it a vital conduit for the Magar community in Jangjang to reap higher benefits from the NTFP business. Approximately 70 percent of MSCL households engage in NTFP collection, providing seasonal opportunities that yield more income than daily wages in the village. The motivation for NTFP collection and trading is on the rise among the economically disadvantaged community members.

## **Challenges of NTFPs in Promoting Livelihood and Community Development**

The study shows several challenges in collecting and trading NTFPs. These challenges are always constraints for the income generation and livelihood promotion of poor communities in Nepal. Challenges in policy, trading, and marketing of NTFPs are major challenges that the community is facing in the study area.

### ***Policy Level Challenges***

The forest legislation governing the collection and trade of Non-Timber Forest Products (NTFPs) in Nepal lacks clarity and effective translation into regulations. Existing regulations pertaining to NTFPs still adhere to restrictive policies, imposing various constraints such as the requirement for collection permits, prohibitions, royalty payments, taxes, and transport permits. Consequently, engaging in the production, collection, and sale of forest products, including NTFPs, is perceived as challenging and potentially illegal under the law. This discourages traders and entrepreneurs from cultivating and trading forest products sourced from privately managed land. Furthermore, the absence of specific guidelines for NTFP management contrasts with the provisions outlined in Nepal's forest policy, which includes support for community forest user practices.

### ***Challenges in NTFPs Collection, Processing and Trading***

The existing support systems available for collection, processing, and trading are not sufficient for small and poor traders. Most of the local entrepreneurs don't have easy access to the capital required for the processing and trading of NTFPs. Less developed market, poor knowledge and skill of marketing, limited numbers of wholesalers, lack of fixed price or price fluctuation, exploitation of middlemen or brokers, shortage of storage, lack of transportation, lack of market channels, price variation between supply and demand of products, limited access to information and technology, etc. are the major challenges of NTFPs trading in the study area.

### ***Challenges for Fair and Equitable Distributions***

The study shows the price of some products received by collectors is less than their labor costs. The traditional traders and local traders are being marginalized when the business is more profitable. Normally, for the marginalized section of the community that collects NTFPs, the price is very low. But other members of the community, like the elite, middleman, and wholesalers may control the trading as the products become more valuable.

## **Conclusions**

In conclusion, the Magar community in Jangjang, a marginalized indigenous group residing near the forest, faces challenges in sustaining subsistence farming. The study conducted in Jangjang Village revealed the collection and trade of approximately 30 species of non-timber forest products (NTFPs), including significant varieties like Allo, Amala, Ban Lasun, Ban Pyaj, Barro, Bel, Bojo, and more. Despite the immense potential of NTFPs to uplift their livelihoods, empirical evidence indicates that the trade was not a lucrative venture for individuals with higher landholdings, food sufficiency, and alternative income sources.

While the demand for NTFPs rises both nationally and internationally, Magars, particularly those with access to land and alternative income, face profitability challenges due to unfavorable pricing that does not cover their labor costs. The study underscores various

challenges in the collection and trading of NTFPs, posing significant constraints on income generation and livelihood improvement for impoverished communities in Nepal.

Policy, trading, and marketing challenges emerge as prominent hurdles in the study area, necessitating interventions for enhanced community capacity. To address these issues, the Magar community has established the Magar Community Support Cooperative Limited (MSCL) with institutionalized practices for NTFP collection, management, marketing, and trading. MSCL can potentially contribute to rule and regulation management for NTFP harvesting and extraction control. However, to maximize MSCL's impact and profitability, there is a crucial need for financial, technical, and capacity development support from development agencies for a sustained period. Only with this support can the Magars gradually assume institutional responsibilities independently and derive higher benefits from NTFP trading in Jangjang and neighboring villages.

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