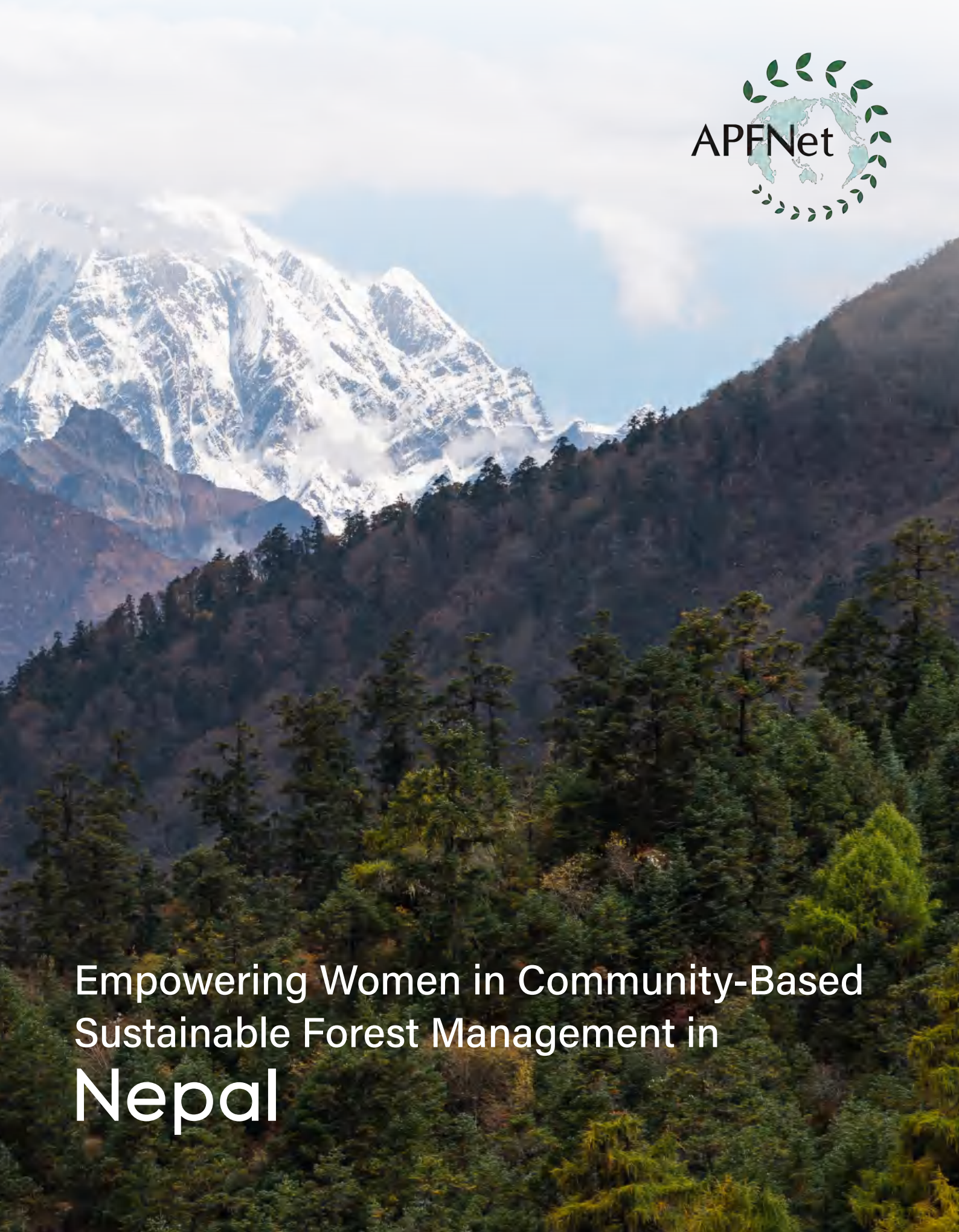

Empowering Women in Community-Based Sustainable Forest Management in Nepal

Asia-Pacific Network for Sustainble Forest Management and Rehabilitation (APFNet)

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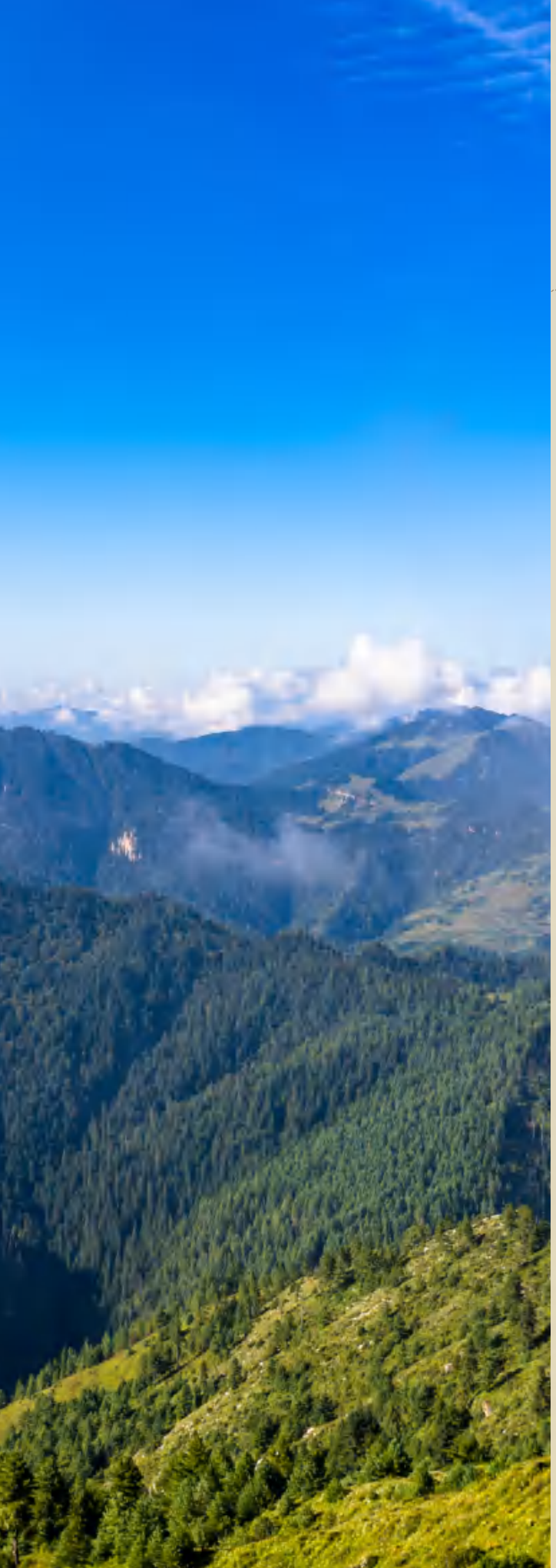

ACKNOWLEDGEMENTS

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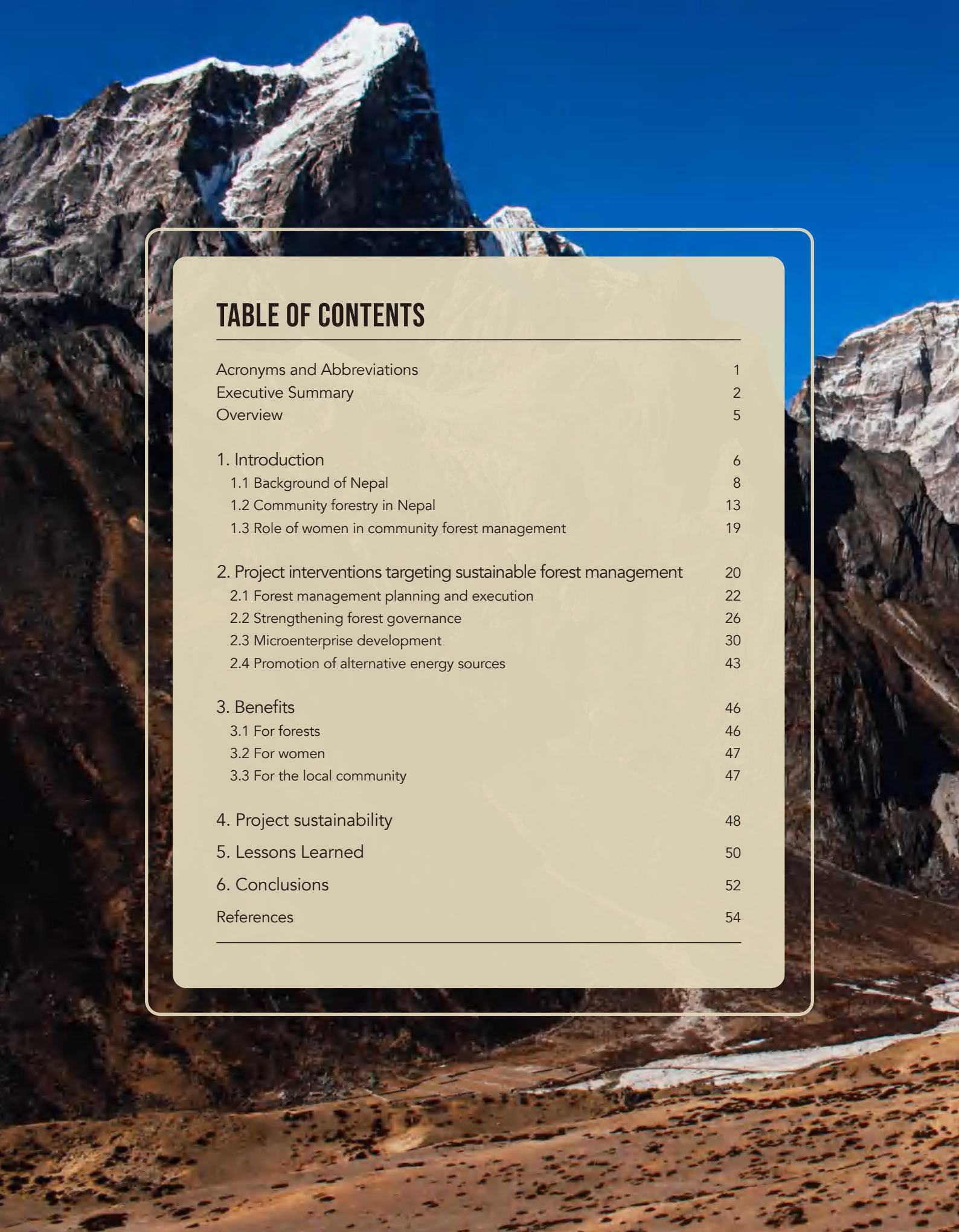
This report would not have been possible without the hard work and support from the project partners, that are the HIMAWANTI-Nepal, Ashmita Nepal and the Community Resource Management Center (CRMC), under the supervision of the Nepalese Ministry of Forests and Environment" (formerly Ministry of Forest and Soil Conservation). In specific, we would like to thank Anita Shrestha, Project Director and member of HIMAWANTI-Nepal, who not only successfully implemented this project in 2014-2018, but also provided valuable inputs during the compilation of this brochure five years after project completion.



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ACRONYMS AND ABBREVIATIONS

APFNet	Asia-pacific Network for Sustainable Forest Management and Rehabilitation
CBFM	Community based forest management
CF	Community forestry
CFUG	Community forest user group
CRMC	Community Resources Management Centre
DFO	District Forest Officer
FAO	Food and Agriculture Organization of the United Nations
FECOFUN	The Federation of Community Forestry Users Nepal
FUGs	Forest User Groups
GDP	Gross domestic product
HIMAWANTI	Himalayan Grassroots Women's Natural Resource Management Association
ICS	Improved cook stoves
LED	Light emitting diode
MoFSC	Ministry of Forestry and Soil Conservation, Nepal
NGO	Non-governmental organization
NTFPs	Non-timber forest products
OP	Operational plan
OWL	Other wooded lands
PHPA	Public hearing and public auditing
PPP	Purchasing power parity rates
SFM	Sustainable forest management
USD	United States Dollar

EXECUTIVE SUMMARY

About one-third of the world's forests are under community-based management, which is a development towards promoting sustainable forest management, reducing poverty, and providing job opportunities for forest-based communities. There is a rising awareness that communities' participation in the planning and decision-making process of community forests and their legal rights on the land tenure are vital to balance forest resources sustainability and people's livelihoods.

Nepal is one of the first developing economies to adopt such a community forestry management program which aims at forest protection while giving authority to the local community to manage their own forests. Women are the most frequent forest users in Nepal who take responsibility for firewood gathering and harvesting of non-timber forest products (NTFP). However, women have less forest tenure than men do, they are highly underrepresented in Community Forest User Groups (CFUGs) as well as in forest-based enterprises, and hence, they are mostly excluded from decision-making structures.

To support the community forestry development and economic empowerment of Nepalese women, together with three women-led NGOs, the Asia-Pacific Network for Sustainable Forest Management and Rehabilitation (APFNet) successfully implemented Supporting Community-Based Sustainable Forest Management and

Economic Empowerment of Women in Central Region of Nepal, a three-and-a-half-year project in Nepal. Between 2014 and 2018, the project provided trainings for women in three districts, Kathmandu, Makwanpur and Sarlahi, to enable them to start mini-enterprises for eco-tourism, handicraft manufacturing and essential oil production, respectively. These trainings helped them to gain new skills and financial independence as well as access to new sources of income generation, which benefits their whole family. Furthermore, to reduce the workload of women as well as the pressure on forests as a main source of fuel wood, the project supported the installation of 75 biogas units, 90 solar panels and 300 improved cooking stoves in poor households. At the same time, good governance mechanism within the CFUGs were strengthened and the optimal forest management practices were demonstrated. In addition, three community nurseries for the production of seedlings for enrichment plantings were established. All these measures were implemented in 13 community forests and contributed to the sustainable management of a forest area of 1,357 ha.

By addressing all aspects of organisational, financial and community sustainability, this project was designed for empowering communities to actively improve their lives beyond project duration, which could also be replicated and scaled up in other regions of Nepal.

OVERVIEW

Project title:	Supporting Community Based Sustainable Forest Management and Economic Empowerment of Women in Central Region of Nepal
Supervisory agency:	Ministry of Forest and Soil Conservation (MoFSC) – Nepal (*Presently the Ministry of Forests and Environment*)
Executing agency:	HIMAWANTI Nepal
Implementation agencies:	HIMAWANTI Nepal (Kathmandu District Chapter), Ashmita Nepal, and Community Resource Management Centre (CRMC)
Project Locations:	(1) Kathmandu District, Central Region Nepal (2) Makawanpur District, Central Region, Nepal (3) Sarlahi District, Central region, Nepal
Project Period:	36 Months (Oct. 2014 – March 2018)
Total Budget USD:	US$ 559, 208
APFNet grant:	US$ 412,238 (in cash)

PROJECT GOAL:

"To contribute to the sustainable management of community forests and local livelihood development in Nepal while developing models of sustainable forest management which are recognized and applied by the government and other communities".

PROJECT OBJECTIVES:

- To demonstrate sustainable forest management practices and promote alternative energy sources to reduce pressure on forests, and to reduce carbon emissions;
- To promote development of community forest-based microenterprises to improve wise use of forest resources while enhancing the livelihoods of poor and marginalized communities;
- To identify and develop models and best practices in which communities are empowered to manage and use forest resources in a sustainable manner.

INTRODUCTION

In 2014, APFNet received an application from a consortium of three women-led NGOs operating in the central part of Nepal requesting financial assistance to implement a community forest project. After a rigorous review process, APFNet approved the project to be funded under its Demonstration Projects category, which is designed to demonstrate best practices in forestry and forest restoration that are economically viable.

RATIONALE

Nepal stands as one of the leading economies to successfully implement community-based forest management to abate the loss and degradation of economy's forest cover. Nevertheless, limited capacity of forestry agencies and lack of sufficient financial resources impede the efforts of sustainable forest management. The forest users have poor capacity and knowledge on implementation of silvicultural practices and harvesting of forest products in a sustainable manner. Despite the availability of sufficient forest resources, communities lack knowledge and capacity to generate sufficient alternative income sources to uplift their living standards.

This situation called for some donor assistance to stimulate innovative interventions that ensure sustainable forest management while enhancing the livelihoods of local communities.

CONCEPT

The project aimed to empower Community Forest User Groups (CFUGs) to sustainably manage their forest resources while harnessing the opportunities for livelihood enhancement, primarily through women-led enterprise development.

PROJECT

The title of the project was "Supporting Community Based Sustainable Forest Management and Economic Empowerment of Women in Central Region of Nepal". The project was implemented during a period of three and a half years from 2014 to 2018.

The total estimated budget of the project was USD 559,208, of which APFNet contributed USD 412,238 as a grant. Execution of the project with some in-kind contributions was undertaken by a consortium of NGOs consisting of HIMAWANTI Nepal, Ashmita Nepal, and Community Resource Management Centre (CRMC). Implementation support was provided by the Department of Forests and Soil Conservation of the Government of Nepal, in close collaboration with other stakeholders.

The project aimed to achieve five specific outcomes;

1. Sustainable forest management (SFM) practices demonstrated and the local communities' capacity on SFM is improved;
2. The income generated from community forests is increased through the development of forest-based micro-enterprises;
3. Alternative energy is promoted and the pressure on forests and carbon emissions are reduced;
4. Community forest management mechanism is improved, including participatory planning, decision-making, financial management, and benefit-sharing;
5. Good models and best practices of community-based sustainable forest management are disseminated to policy makers and practitioners;

The APFNet evaluator is welcomed by the Laglage Pakha ecotourism committee, Kathmandu District (above). Welcome meeting with participants from the wooden handicraft trainings from Makawanpur District (below).

Photo credits: Anita Shrestha/HIMAWANTI Nepal

1.1 BACKGROUND OF NEPAL

Nepal is situated in the central part of the Himalayas between 26°N and 31°N latitudes and 79.8°E and 88.5°E longitudes. It consists of an area of 147,181 square kilometers with diverse geographical conditions. The economy is landlocked between India and China on the southern slopes of the Himalaya range.

TOPOGRAPHY

Nepal has tremendous geographic diversity that ranges from alluvial plains in the tropical lowlands to very rugged and permanently snow and ice-covered Himalayan Mountains. The economy can be divided into five major physiographic landscapes extending from east to west, namely the High Himal, High Mountains, Middle Mountains, Siwaliks and Terai. These zones vary in their topography, soils, climate and forest types, as well as their population densities, ethnicities, land uses, and livelihoods. Elevation rises from about 60 meters in the south, to the highest Himalayan peaks above 8,000 meters in the north.

CLIMATE

Many different climatic types are found in Nepal, ranging from alpine cold semi-desert type in the trans-Himalayan zone to tropical humid type in the Terai. The climate is predominantly influenced by three major factors namely, the altitudinal variations, monsoons, and westerly disturbances. It is characterized by four distinct seasons, namely, the pre-monsoon (March-May), monsoon (June-September), post-monsoon (October-November) and winter (December-February).

Nepal receives average annual rainfall of around 1,600 millimeters. This varies from 165 millimeters in the rain-shadow areas of the northern Himalayas (Upper Mustang) to 5,500 millimeters in the Pokhara Valley. Most of the precipitation occurs during June-September in the form of monsoon rains. The economy is highly vulnerable to seasonal floods and landslides.

Map of **NEPAL**

DEMOGRAPHY

As per the 2021 census, the population of Nepal was 29,192,480 with a growth rate of 0.93% per year. It has been steadily rising in recent decades. In the 2011 census, economy's population was approximately 26 million people with a population growth rate of 1.35% and a median age of 21.6 years.

Distribution of the population is uneven across the economy. Population density is relatively low in the mountains with only 34 people per square kilometer, compared to 186 in the hills (which contain the urban centers of Kathmandu and Pokhara), and highest of 392 in the Terai.

Nepal is a multi-ethnic, multi-lingual, multi-religious and multi-cultural state, with Nepali as the official language.

ECONOMY

Nepal is primarily an agricultural economy, which is very much dependent on the use of natural resources. About half of the people live in rural mountain areas with fragile physiography and low productivity, thereby creating a very strong poverty-environment-health and vulnerability nexus. Many marginal agricultural lands in those areas have been temporarily abandoned in recent years primarily because of labor scarcity due to the out-migration of youths seeking off-farm and foreign employment.

Agriculture remains the mainstay of rural regions and livelihoods, and farming is mostly small scale and subsistence based. Only about 20% of the total area is cultivable. Fruits and vegetables (apples, pears, tomatoes, various salads, peach, nectarine, potatoes), as well as rice and wheat are the main food crops. The lowland Terai region produces an agricultural surplus, part of which supplies the food-deficient hill areas.

Nepal's gross domestic product (GDP) for 2019 was USD 34.186 billion, with an annual growth rate calculated at 6.6 percent. GDP is heavily dependent on remittances from migrant workers. The export-oriented carpet and garment industries have grown rapidly in recent years. Together, they account for approximately 70% of the economy's merchandise exports. The economy ranks 165th in the world in nominal GDP per capita and 162nd in GDP per capita at PPP. Inflation in Nepal was at 4.5% in 2019.

In 2022, Government of Nepal restricted the importation of non-essential goods after its foreign currency reserves dropped. COVID-19 pandemic caused a decline in tourism spending as well as the money sent home by Nepalese working abroad, which in turn lowered economy's foreign currency reserves.

BIODIVERSITY

Nepal's unique geography with its dramatic changes in elevation along the relatively short (150-250 km) north-south transect and associated high variability in the physiographic and climatic conditions have resulted in a uniquely rich diversity of flora and fauna. The economy in its entirety, forms the western portion of the eastern Himalayan biodiversity hotspot.

The dramatic differences in elevation found in Nepal result in a variety of biomes. The eastern half of Nepal is richer in biodiversity as it receives more rain, compared to western parts, where desert-type conditions are more common at higher elevations. Among the rangeland ecosystems, the tropical savannas and alpine meadows are exceptionally rich in biodiversity. Nepalese wetlands have very high ecological significance, as they harbor many threatened species of flora and fauna and serve as resting places for many migratory and globally threatened birds. The wetlands also have high cultural and economic significance. Many ethnic groups are dependent on wetlands for their livelihoods. Nine of the economy's wetlands have been listed as Ramsar sites.

FORESTS

Forest land covers 5.96 million hectares of Nepal which represents 40.36 percent of the tota land area of the economy. Other wooded lands (OWL) covers 0.65 million ha (4.38 percent). Consequently, forests and OWL together represent 44.74 percent of the total area of the economy (MoFSC, 2015).

The economy's forest ecosystems can be categorized into ten major groups, namely tropical, subtropical broadleaved, subtropical coniferous, lower temperate broadleaved, lower temperate mixed broadleaved, upper temperate broadleaved, upper temperate mixed broadleaved, temperate coniferous, subalpine, and alpine scrubs.

Forests in the south are predominantly Sal forests or mixed broadleaf forests, transitioning into higher proportions of coniferous species with higher altitude. In the middle mountains, forests are very diverse, containing mixed hardwoods, pines and oaks. But in the higher mountains, fir and pine predominate with rhododendron. Above the tree line in the High Himal, tundra shrubs and grasslands are predominant.

Since September 2015, Nepal has adopted federated structure of governance, which is a sharp departure from the previous unitary state. This restructuring also has considerable effect on governance across many sectors including the forest sector. New constitution has introduced three layers of government (i.e., federal, provincial and local level) and forest has come under concurrent powers of federal, provincial, and local government (Muni, 2015). The recently approved Local Government Operation Act of 2017 has provided the responsibility of environment and biodiversity conservation to the local governments.

In the context of promulgation of the new Constitution in 2015, the government approved a new forest policy also in the same year and forestry sector strategy in 2016 to provide guidance for forestry development. The Ministry of Forests and Soil Conservation (MoFSC) is the lead ministry, but the Ministry of Environment is also responsible for supporting environmental protection and forestry sector development.

The second amendment of the Forest Act 2016, broadly classified forests into two major classes: national forests and private forests. National forests are further subdivided into government managed forests and community managed forests. Government managed forests include forests within protected areas, block forests, inter-provincial forests and protected forests (forest conservation areas), while community managed forests include community forests, collaborative forests, leasehold forests (pro-poor and industrial) and community-based buffer zone management around protected areas.

Establishment of a seedling nursery in Kathmandu district
Photo credit: Anita Shrestha/HIMAWANTI Nepal

1.2 COMMUNITY FORESTRY IN NEPAL

Nepal has become one of the first developing economies to adopt a robust community forestry management program which gives authority to the community groups to manage their forest resources. The main goal of the community forestry program is to empower local communities whilst encouraging environmental conservation benefits.

HISTORY

The community forestry program of Nepal came into force during the late 1970s, when there was a great concern for environmental sustainability. The continuing growing population put a strain on the economy's forest resources and the government was seeking options to protect forests whilst providing better livelihoods for the Nepali people.

When community forestry (CF) was first introduced in Nepal in the late 1970s, it was established in local communities that were, to a large part, isolated in terms of local economy and livelihoods. Most rural people lived semi subsistence lifestyles, heavily dependent on local forests and farmlands for their livelihoods. The initial concern of CF was to provide for local management of forests that would contribute to forest conservation and reforestation.

EVOLUTION

The Community Based Forest Management (CBFM) approach with special focus on reducing poverty evolved as a key strategy in Nepal over the past few decades. One of the assumptions behind this strategy was that local communities, when legally empowered to take control of the forest resources, can develop local-level institutions to organize the sustainable use of natural resources, thereby reducing poverty (Ojha et. al. 2007).

Community forestry is now widespread in Nepal, particularly across the regions of the middle hills, with a very high proportion of rural population involved. It is widely recognized as one of the most successful examples of community forestry in Asia.

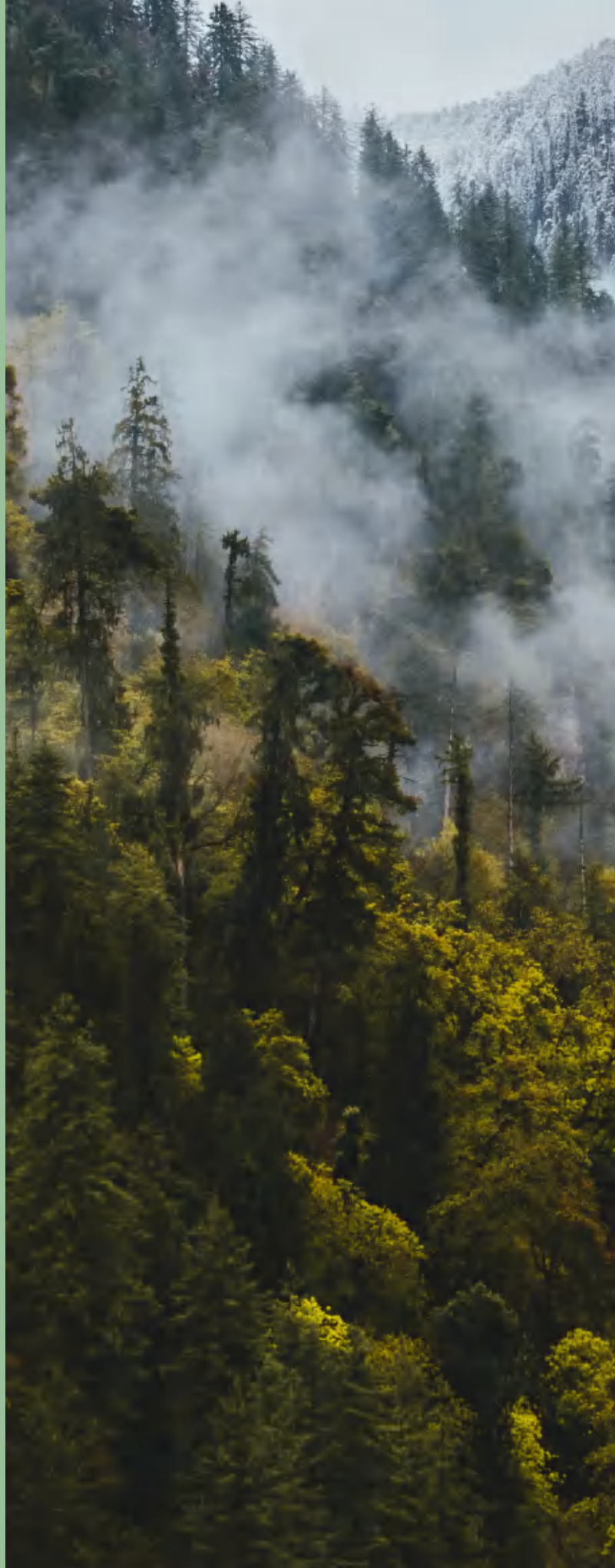
POLICY AND LEGAL FRAMEWORK

The first policy and institutional shift began in 1978 when the forest regulation of Panchayat forest and Panchayat-protected forest rules allowed local governments the right to oversee and manage selected forest areas.

An even greater shift began in the early 1990s when the Forest Act 1993 and Forest Regulation 1995 came into operation. It allowed local communities to have direct access and management rights over the forests that they depend on for their livelihoods. Accordingly, national forests can be handed over to local communities for forest development, conservation, and utilization for the collective benefits of the members. The state still maintains ownership of the forests while the access rights and management responsibilities are assigned to the respective community forest users groups. Any revenue generated from such forests can be used for different purposes, such as forest management, community drinking water supply, or income generation projects. The government has fixed the proportions of the total income to be spent for specific purposes.

Nepal has recently reformulated the National Forestry Policy, based on the lesson learnt from earlier Forest Policies of 2000 and 2015, with the vision of social, economic and cultural prosperity of Nepal through managed forests and balanced ecosystems. It provided the basis for the development of new Forest Act, 2019 to ensure sustainable management of all types of forests and promote community stewardship in forest management and utilization.

The Forest Act 2019 also created provisions to establish Forest Development Fund that can be used for the conservation, promotion and development of forests ensuring biodiversity conservation and climate change mitigation. This fund may receive endowment from governments, individuals and organizations, development partners as well as the set proportion of the revenue generated through the sale of forest products, compensation of forest land provided to infrastructure development projects, and Payment for Ecosystem Services (MoFE, 2019).



CURRENT CONTEXT

Due to the program's overall success, around 35% of the Nepal's forests are now under the community management (MoFE, 2019). The overall effects of the community forestry program include the increase of biodiversity resulting from rejuvenating and expanding the diversity of trees and plant species. Those efforts helped to abate the loss and degradation of forests and even reversed the trend in many areas, particularly in the middle mountains. As a result, Nepal now stands as one of the leaders in community based forest management as they have made direct progress in halting environmental degradation and regenerating forests in barren areas.

The establishment of local CFUGs (Box 1) has resulted in a variety of environmental, social and economic benefits for local communities. In many communities, CFUG provides a central institutional focus, bringing the community together around a common purpose, developing networks and skills, and building local expectations and capacities. In some cases, these groups have gone beyond the focus on forest management in order to contribute to a broader development agenda in the local community.

BOX 1: Community Forest User Groups (CFUGs)

The concept of Forest User Group (FUG) is the central of community forestry program in Nepal. A forest user group can be termed as legally recognized group consisting of all members of a community that frequently use a particular forest area for the extraction of forest products or who have been using and managing traditionally an area of forest. The forest user group makes a decision as to how the community forest to be managed and utilized based on full participation of all members through management or through an operational plan (Adhikari, 2021).

Based on the Forest Act of 1993 and Forest Regulations of 1995, handing over the management responsibilities of forests to the communities requires the formation of a Community Forest User Group (CFUG) and submission of the group's constitution, together with an operational plan (OP) for a designated area of forest. The OP outlines the management strategies of the forest and use patterns of forest products. CFUGs should set clear rules for the collection of forest products.

As of May 2020, there are 22,266 CFUGs in Nepal managing 2.24 million ha (35% of total) of economy's forest resources and directly benefiting 2.91 households (about 33% of total population of the economy) (Pathik, 2020). In general terms, CF provide livelihood opportunities for members of CFUGs by enhancing their personal capacity, supporting income generation and providing funds to support a range of community-oriented activities.

BOX 2: FECOFUN

The Federation of community Forestry Users Nepal (FECOFUN) is a formal network of Forest User Groups (FUGs) from all over Nepal. FECOFUN emerged from the idea that forest users from all parts of the economy should be linked in order to strengthen the role of users in policy making processes.

Since its inception in July 1995, FECOFUN has grown into a social movement organization with about 8.5 million people represented, all of whom are forest users. It is a national federation of forest users across Nepal dedicated to promoting and protecting user rights.

The membership of FECOFUN are categorized into two types according to user group involvement in natural resource management and use rights. Forest User Groups (FUGs) organized under the Forest Act-1993 of Nepal (provision related to the formation of CFUG) are eligible to become general members of this federation and any other user group based on forest resources at grassroots level are qualified to become elementary member. Of more than 22,200 Community Forestry Users Groups (CFUGs) and other Community Based Forest Management Groups (such as leasehold forestry groups, religious forestry groups, buffer zone and traditional forest management groups), in Nepal approximately 16,186 groups are affiliated with FECOFUN. There are approximately 30 FECOFUN employees in Kathmandu and many more in over 77 district FECOFEN offices. FECOFUN is also supported by thousands of volunteers and community forestry facilitators as well as by several national and international organizations.

Source: http://fecofun.org.np

CHALLENGES

The community forestry approach has been successful in restoring degraded lands and enriching habitats for wildlife. While noting these successes, the handing over of responsibility for forest management from government to communities has presented new challenges associated with local autonomy and decision-making, institutional governance, tenure and rights, as well as issues of equity in decision-making and benefit distribution. Recognizing the role of women and empowering them to play a significant role in decision making is also an important area that requires further attention.

Rejuvenating forests from degraded lands alone have not played a crucial role in uplifting poor and marginalized households. The contribution of CF to the household economy varies according to the types of intervention carried out and local initiatives taken in the respective community forests. Consequently, poverty is reduced only in isolated cases where community groups support targeted pro-poor and locally-planned activities.

FAO (2016) identified a set of gaps in forest tenure policies in Nepal and major areas to be improved, such as defining the roles and accountability of the state and non-state actors, including business enterprises and the private sector. The recommendations of that study include (among others), creation of enabling legal and policy environment for private sector investment in forestry, formulation of new policies and guidelines for forest-based ecotourism and payments for ecosystem services, scaling up agroforestry nationwide with strong market linkages to demonstrate the benefits and income improvement for local communities, formulation of pro-poor policies and guidelines to ensure that poor forest-dependent communities obtain benefits from forests to support their livelihoods. Furthermore, the study recommends to increase people's access and rights to valuable resources and encourage them to participate in their sustainable management and trade, and removing restrictions imposed on harvesting and marketing of timber and non-wood forest products from community and leasehold forests to allow communities to harvest and sell timber as agreed under forest management plans.

Today, community forestry finds itself embedded in a more complex global economy and confronted by rapidly changing global and national pressures and priorities. Climate change as well as contemporary social change, including extensive labor migration and feminization of rural agriculture, present new challenges as well as opportunities for community forestry in Nepal.

Establishment of a seedling nursery in Kathmandu district
Photo credit: Anita Shrestha/HIMAWANTI Nepal

1.3 ROLE OF WOMEN IN COMMUNITY FOREST MANAGEMENT

In many developing economies women are responsible for the collection of forest products essential to the daily needs of their households. However, women are often neglected in the decision-making process within community level institutions devoted to the management of natural resources.

In Nepal, women are the more frequent forest users, making them most affected by forest management decisions and forest condition. However, they have less tenure over forests than men do, primarily due to historically patriarchal gender norms. As forest products such as fuel wood and non-timber forest products (NTFPs) become more scarce, women are required to travel greater distances to acquire the products on which they depend.

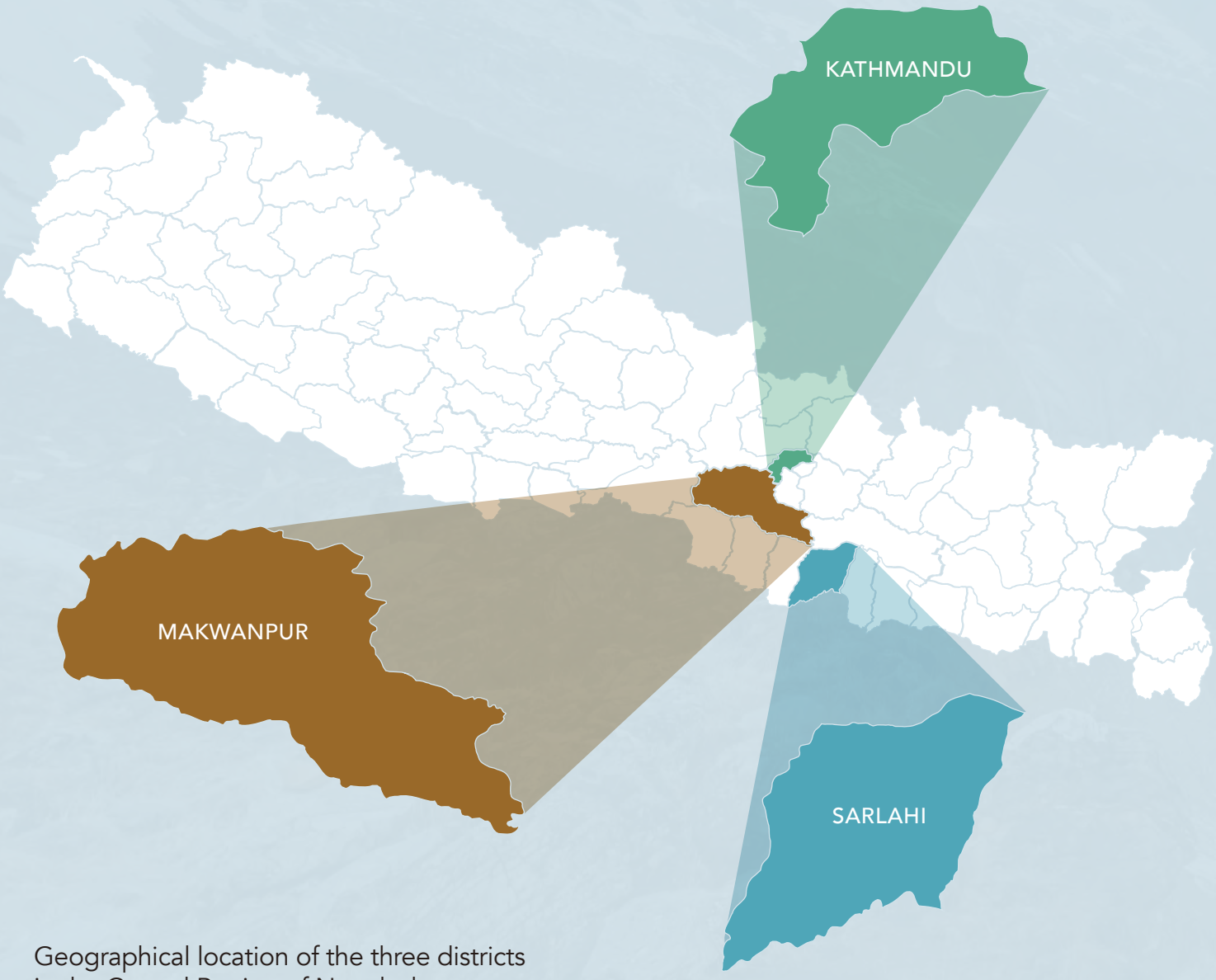
In the 1970s community forestry was established to address the deforestation crises occurring at that time. Women were not included during the developmental stages of community forestry, and therefore excluded from Community Forestry User Groups (CFUGs). In 2001, women comprised only 3.5% of CFUGs in Nepal. That number has been steadily increasing since then, due to the shift from monarchy to federal republic, as well as due to the collective action of governance systems working towards gender representation.

Involving women in decision making and tenure agreements is not only needed for social equity, but it is needed in order to improve the physical condition of the community forests. Due to women being the most affected stakeholders (as they do the majority of firewood gathering and NTFP harvesting), they will be able to provide insights and management suggestions on forest health and sustainability.

Now, with the maturity of community forestry and strengthened CFUGs, exploration of new entrepreneurship options from community forests for women is vital to uplift their livelihoods.

PROJECT INTERVENTIONS TARGETING SUSTAINABLE FOREST MANAGEMENT

The selected project sites are located in the Central Region of Nepal representing three different geographical regions, namely; mid-hill, inner terai, and terai. Altogether 13 CFUGs representing a total of 4317 households were included in the project. Together they manage approximately 1375 ha of community forests. Availability of forest resources for livelihood development, as well as the interest expressed by the CFUGs to carry out project activities have been considered as the selection criteria. Majority of the CFUGs represents poor and marginalized communities.



Geographical location of the three districts in the Central Region of Nepal where project activities took place

KATHMANDU

The Kathmandu district is a part of Kathmandu valley and is surrounded by the hills of Mahabharat Range. It has a mild climate throughout the year. The total forest cover of the district is about 224 km², and is dominated by the Schima – Castanopsis association along with chir pine and Alnus nepalensis. The communities living in the district consist of diverse ethnicities and cultural groups.

The selected community forests covering 618 ha are located towards the edge the urban area. Altogether six CFUGs were involved with project activities in Kathmandu district. CFUGs are recognized by their local names as; Ganesh Devi, Mahankal, Lagalage Pakha, Seti Devi, Chandra Giri, and Maha Laxmi. Among them, three CFUGs (Seti Devi, Chandra Giri, and Maha Laxmi) were totally managed by female members.

MAKWANPUR

The Makwanpur district lies in Narayani Zone of the Central Region of Nepal. The forests in Makwanpur district are dominated by Sal (*Shorea robusta*). In addition, North Indian Rosewood (*Dalbergia sisso*) is also found along the banks of Rapti river. Towards the transitional zone of north-western part, both Sal and Pine forests are found. The district is also inhabited by indigenous communities such as the Chepangs.

Four community forests covering approximately 500 ha have been identified for project interventions in Makwanpur district. They are managed by four CFUGs under the names of Piple Pokhara, Nirni, Banaskhadi and Makamana. The households of the CFUGs are belonging to ethnic groups such as Rai, Magar, and Tamang.

SARLAHI

Sarlahi district lies in the southern region of Nepal and is located at the foothills of Churia range. The species composition of forests in Sarlahi differs greatly from the forests of the other two districts as they consist of high value timber species.

Three community forests managed by CFUGs under the names of Janajyoti, Nandeswor and Radhakrishna have been selected for project interventions in Sarlahi district.

2.1 FOREST MANAGEMENT PLANNING AND EXECUTION

RATIONALE

CFUGs are managing their respective community forests and utilizing forest products for their daily needs. However, the existing silvicultural practices were unscientific and untimed. They lacked capacity, knowledge and skills on harvesting techniques, as well as appropriate tools and equipment. Thus, their conventional harvesting practices often caused damage to the forest. Application of scientific forest management practices through training and capacity building was identified as a priority need to ensure sustainable forest management.

FOREST INVENTORY

Forest inventory and baseline data collection was carried out in all project sites consisting of 13 CFs in order to assess available and potential resources in the community forests. This data was used for management planning and to ascertain sustainable harvesting levels.

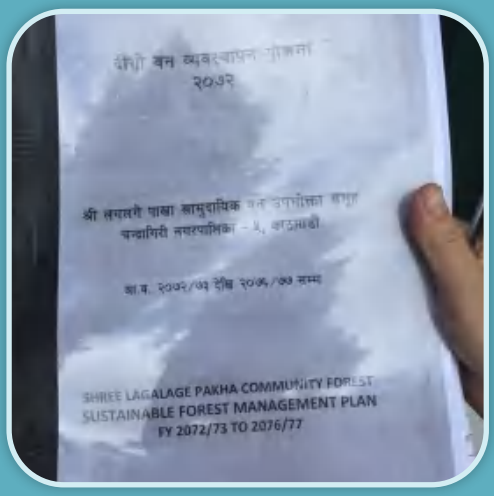
TRAINING AND CAPACITY BUILDING

In each of the project districts, training programs on forest management techniques were carried out with the support of trained forest officials. Minimum of ten members from each CFUG, representing all 13 CFUGs participated in the training. The training included field demonstrations, practical sessions, as well as hands on experiences on proper use of harvesting tools and equipment.

Steering Committee Meeting with members from the CFUGs, the districts' forest offices, APFNet and consortium partners in 2016. Photo credits: Anita Shrestha/HIMAWANTI Nepal

DEVELOPMENT OF FOREST MANAGEMENT PLANS

The project supported and facilitated the development of forest management plans for each community forest, based on the data collected during the inventory. It was carried out through a participatory approach with the involvement of all relevant stakeholders and forest user groups. Accordingly, thirteen community forest management plans were developed and subsequently endorsed by the District Forest Officer (DFO).



A community forest management plan

NURSERY ESTABLISHMENT

Three community nurseries with one in each sites (Kathmandu, Sarlahi and Makwanpur) were established and operated under the project support. These nurseries produced seedlings for enrichment plantings in community forests and for distribution among individual community members to be planted in their home gardens. Fast growing fodder, fruit, and other multipurpose tree seedlings were produced in these nurseries. It was anticipated that they can supplement basic needs of community households such as fuel wood, timber, fodder and medicines. Technical expertise on nursery management was provided by the District Forest Office and other relevant government agencies.

Women engaged in community nursery activities

Community nursery of Chandragiri CFUG. All photo credits on this page: Anita Shrestha/HIMAWANTI Nepal

Newly established nursery in Makwanpur

Establishment of the nursery in Neureni Chispani CF, Makwanpur (left).
Seedlings for the nursery in Hetauda, Makwanpur (right).

SILVICULTURAL OPERATIONS AND LOW-IMPACT HARVESTING

The project supported CFUGs to carry out silvicultural operations in their community forests. Operations such as weeding, pruning as well as extraction of dead, decayed, and diseased trees were carried out applying appropriate silvicultural techniques. Demonstration plots were also established in selected locations to enhance the learning experience among CFUG members. Improved harvesting tools, such as bow saws, cross cut saws, hand saws, harvesting axes, logging axes, knives, sickles, as well as safety equipment such as helmets and gloves have been procured and supplied using project funds. Local forest users were trained on the proper use and handling of instruments under the technical facilitation of the District Forest Office. 52 users from 13 CFUGs participated in the trainings, and among them 42 were women. Extracted forest products were distributed among CFUG members, as per the guidelines given in their constitutions and operation plans.

Forest management demonstration plots in Shree Setidevi Women CFUG
All photo credits on this double page:Anita Shrestha/HIMAWANTI Nepal

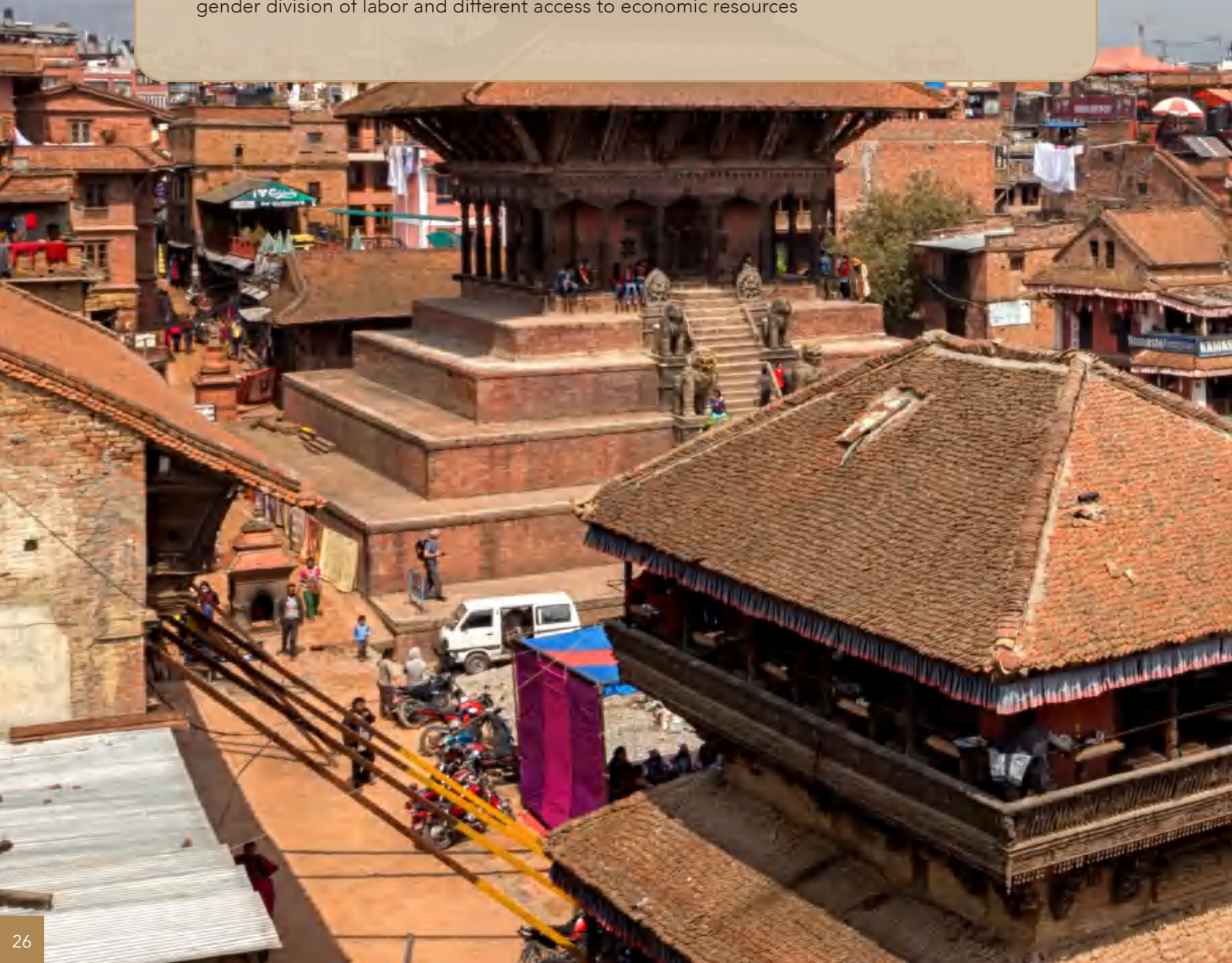
This Kantakari plant has been cultivated by the Setidevi CFUG in Thankot, Kathmandu district.

2.2 STRENGTHENING OF FOREST GOVERNANCE

RATIONALE

Improved governance of natural resource use is critical to the sustainability and maintenance of environmental quality. CFUGs can function efficiently and effectively, only if good governance mechanisms within the CFUGs are strengthened.

Effective forest governance processes engage forest stakeholders, address key forest-related issues, as well as involve other sectors that affect, or are affected by, forest governance. Minimization of corruption, consideration of views and voices of poor and marginalized groups in decision-making and implementation, and rational use of resources should also be embedded in the mechanism. It is essential that women are involved in these processes because rural women's dependence on forests is different from, and often greater than, men's due to the gender division of labor and different access to economic resources



BOX 3: Forest Governance

Forest governance is defined by the FAO as the way in which stakeholders negotiate, make and enforce binding decisions about the management, use and conservation of forest resources. It also includes rules on how forests should be governed, governmental regulations about who benefits from forest resources, and traditional and customary rights.

In general, forest governance is considered "good", when it is characterized by elements such as adherence to the rule of law, transparency and low levels of corruption, stakeholder participation in decision-making, adequate equal rights for stakeholders, accountability, a low regulatory burden, and a coherent set of laws and regulations both within the forest sector and in other sectors that influence forest management.

Source: https://www.fao.org/sustainable-forest-management/toolbox/modules/forest-governance/en/

GOVERNANCE ASSESSMENT

The project supported CFUGs to assess the management mechanism within the groups by the application of the "Spider" tool. The assessment was conducted in all 13 CFUGs with the support of local facilitators.

It helped to diagnose the current status of CFUGs in relation to transparency, accountability, rule of law, inclusiveness and gender equity. The Spider Webs developed were printed and placed in the CFUG offices. The results of the assessment revealed that there were areas for improvement that require further attention such as, inclusiveness of the executive committee structure, frequency of committee meetings and general assembly, and systematic record keeping, etc.

REGULAR ASSEMBLY

The project provided support to members of 13 CFUGs in holding regular assemblies and executive committee meetings. This has increased the frequency of meetings that in turn have made the decision making process more democratic and inclusive.

PARTICIPATORY PLANNING

The project facilitated CFUGs to develop their annual planning and budgeting in a transparent, need-based, and inclusive manner. The users were made aware of their annual progress as well as the reporting mechanisms.

PUBLIC HEARING AND PUBLIC AUDITING

Public Hearing and Public Auditing (PHPA) exercises were conducted in CFUGs to enhance transparency and accountability among executive committee members and general user groups. This process helped to improve the financial management systems within the groups, and also to improve the social inclusion in terms of participation and representation of women, marginalized groups, and the poor, in the decision making process, especially with regard to access to natural resources and equitable sharing of benefits.

BOX 4: Spider Tool

Developed by "Save the Children" originally in Nepal, Spider Tool is a simple and effective self-assessment and planning tool. It provides ways to evaluate key dimensions of an organization's work that can be used to plan and implement organizational changes.

The 'Spider Tool' is intended to promote reflections, analysis, sharing, dialogue and action planning within organizations. The Spider Tool process involves people from all levels and capacities in the organization working together to assess the strength of the organization according to a number of core dimensions (Key Quality Elements). The results of the assessment are transferred to a spider web diagram that illustrates how the participants see the organization. The Key Quality Elements (KQEs) with the lowest current rankings can then be identified and may be the first target for priority action with a view to begin strengthening the organization in these areas.

Aromatic herbs cultivators group from Sarlahi district
Photo credits: Anita Shrestha/HIMAWANTI Nepal

2.3 MICROENTERPRISE DEVELOPMENT

COMMUNITY-BASED AROMATIC HERBS ENTERPRISE

The project identified a community-based aromatic herb enterprise as the sustainable livelihood enhancement strategy for the communities at the Sarlahi site. Altogether 75 poor female members representing three CFUGs in Sarlahi involved in collection and marketing of aromatic herbs have been selected for this livelihood improvement program.

Harvesting of aromatic herbs in Sarlahi district
Photo credits for all photos on this double page: Anita Shrestha/HIMAWANTI Nepal

Training and capacity building on aromatic herbs in Sarlahi

RATIONALE

A large number of rural families depend on Non-Timber Forest Products (NTFPs) for meeting their needs for food and medicine. Many NTFPs, particularly the medicinal and aromatic plants, are also important sources of cash income for thousands of rural families.

Market demand for essential oils, such as Lemongrass, Pamaroja, Citronella, and Chamomile, among others, is slowly increasing in Nepal. They are mostly exported as raw material to India, China, and also to some European economies.

AWARENESS CREATION

The project organized several awareness raising events on aromatic herb enterprise development in Sarlahi district. Those consisted of various meetings, workshops, and discussions facilitated by invited experts. One field visit was also organized to other communities that are already engaged with this business.

VALUE CHAIN ANALYSIS OF AROMATIC HERBS

The value chain analysis was conducted for aromatic herbs enterprises in Sarlahi. Various factors affecting the production, marketing and distribution of aromatic herbs such as Citronella, Lemongrass, Chamomile, Pamarosa and Mentha were identified in the analysis. In the analysis, growth potential, market trends and competitiveness of aromatic herbs including their future prospects were also taken into consideration. In addition, dynamics of processing and value creation, reward distribution, and knowledge management were also assessed.

The analysis revealed that the essential oils value chain is characterized by the informal nature of its upstream base (producers, gatherers, and collectors) and its better organized and more formally structured downstream actors (processors and exporters). Overall, the value chain operates with little vertical integration and almost no horizontal collaboration at the producers' level. Producers and collectors have little access to end-market information and thereby receive fewer benefits.

BOX 5: Value Chain Analysis

A 'Value Chain' defines the various business activities and processes involved in creating a product or performing a service. It includes the stages of a product's lifecycle, from design to production and distribution.

In 'Value Chain Analysis', each production step is analysed to identify ways to increase the efficiency of the value chain and to reduce costs. Each activity in the chain is analysed and tweaked to perform at optimal levels to increase value for customers and to achieve higher profits.

AROMATIC HERBS PLANTING IN COMMUNITY FORESTS

The project supported CFUGs to establish a 12 ha plantation of Citronella, Pamarosa, Mentha and Lemongrass in an under-utilized land located under a high-transmission line. In addition, same species were planted in the understory of their community forests as well. Planting material and necessary equipment have been procured using project funds.

Site preparation for aromatic herb plantation

Workshop on the Aromatic plant value chain and Awareness for Sustainable Forest Management in Sarlahi

Aromatic herb plantation of the Sarlahi community (circle) and harvesting lemon grass (bottom). All photo credits on this double page: Anita Shrestha/HIMAWANTI Nepal

PROCESSING AND MARKETING

The District Forest Office has complimented the program by providing a store house in Nandeswor Forest area for the temporary storage of materials. A small processing plant was established in Nandeswor community with the involvement of 40 female community members. One processing plant was also constructed in Radha Krishna community forest area for oil processing.

The project supported the establishment of a marketing committee consisting of CFUG representatives. Nandeswor Community Forest User Group has formed a cooperative with the engagement of 25 members and registered it in Sarlahi for marketing of aromatic herb products.

Sales centers were established in Lalbandi and Hetauda city area under the management of the marketing committees. Product samples and marketing information were made available in the sales centers. The centers are functioning as a contact point for farmers and buyers.

Aromatic herbs plantation women group of Radha Krishna community forest have entered into a forward contract agreement with Himalayan Bio-trade Company to sell their products. The company has agreed to facilitate to obtain the organic certification for the community products.

COMMUNITY-BASED ECOTOURISM ENTERPRISE IN CHANDRAGIRI

The project selected community-based ecotourism practices as a sustainable livelihood development strategy for the communities in Kathmandu site.

RATIONALE

Ecotourism development has been widely accepted as a viable option to generate additional income for local people while managing the environment sustainably. As one of the fastest growing sectors of the global tourism industry, ecotourism has a potential to serve as an environmentally, socio-culturally, and economically viable option for promoting sustainable development. Responsible ecotourism programs minimize the negative aspects that conventional tourism can have on the environment and also enhance the cultural integrity of local people.

BOX 6: Ecotourism - concept

Much attention has been paid to the question of what constitutes "ecotourism". Numerous concepts and definitions exist.

The International Ecotourism Society and most ecotourism organizations define ecotourism as "*responsible travel to natural areas that conserves the environment, sustains the well-being of local people, and involves interpretation and education*".

Most conceptual definitions of ecotourism can be reduced to the following;

"*Ecotourism is tourism and recreation that is both nature-based and sustainable*"

BOX 7: Chandragiri forest ecotourism destination

Chandragiri forest is situated in the western part of Kathmandu District in the Bagmati Zone of central Nepal. It is approximately 2475 meters from the sea level and from there one can see the breathtaking view of Kathmandu valley as well as the snow-capped mountains ranging from Annapurna to Mount Everest. The forest also serves as a border between Kathmandu and Makwanpur districts and can be easily accessed from the Capital Kathmandu. It lies close to some highly diverse and rich forest ecosystems such as the Fulchoki mountain forest, Parsa wildlife reserve, Shivapuri Nagarjun National Park, Langtang National park, etc.

The forest of the Chandragiri hills is also rich in biodiversity. It is a home for several endangered species, nationally and internationally important wildlife such as Jungle Cats (*Felis chaus*), Golden Jackals (*Canis aureus*), Chinese Pangolins (*Manis pentadactyala*), and leopard cats (*Proonailurus bengalensis*). In addition, this area is an important transit location for many migratory bird species.

Besides its natural beauty, Chandragiri hill is also rich in cultural heritage. People of different religions, cultures, and linguistic orientations, including ethnic groups such as Tamang, Magar, Gurung, Lama and Sherpa are living there. Each ethnic group has their own traditions and culture. There is also a famous temple located at the top of the mountain. A private company is operating a cable car service for the visitors up to the temple.

The forest has high potential to be developed as a tourist destination to attract domestic as well as international tourists. Various private institutions have already expressed interest to invest in the area, which is a good sign as it will enhance the income generation opportunities for the locals.

A scenic view from Chandragiri forest

BOX 8: Ecotourism Development Planning Process

1. **Feasibility Study**

Prior to making a decision about the site selection, HIMWANTI Nepal has done a feasibility study on ecotourism potential of Chandragiri forest based on several criteria such as, road access, availability of tourist attractions with a potential for development, the interest and commitments of CFUGs, etc.

2. **Revision of the Community Forest Operational Plan**

Operational plans and guidelines have been revised in all six CFUGs to accommodate the management and facilitation of ecotourism as a livelihood development strategy. CFUGs constitutions have also been revised accordingly.

3. **Development of an ecotourism management plan**

An ecotourism management plan was prepared after detailed consultation with all relevant stakeholders including members of CFUGs, government institutions, local government authorities, and political leaders. Various data was collected including the forest resources of the area and potential assets for ecotourism such as, birds, wildlife, butterflies, etc. Field observations and extensive consultations were conducted with local community to identify development zones, based on the intensity of existing use. The management plan includes inter alia, sustainable infrastructure designs, zoning for visitor use, revenue generating mechanism, visitor management and monitoring mechanism, benefit sharing mechanism, as well as measures for the mitigation of potential negative impacts.

DEVELOPMENT OF TOURISM INFRASTRUCTURE

The project supported the development of following infrastructure facilities to enable the CFUGs to operate an ecotourism business model in Chandragiri forest.

- 10 km nature trail
- Two bird watching towers
- Four toilets
- Two guard rooms
- Four picnic spots/resting places
- One garden
- A water supply system to strategic locations
- A children park
- Sign boards for birds and trees
- A geographical map

Nature trail development in Chandragiri forest

MANAGEMENT ARRANGEMENTS

A management committee was established among the CFUG members of Lagalage Pakha CFUG. The committee is responsible to coordinate with all CFUG members in planning and executing ecotourism activities. Accordingly, management responsibility of the ecotourism business ventures was officially handed over to the committee.

TRAINING AND CAPACITY BUILDING

Specific training related to park management and promotion of ecotourism was given to the members of the management committee. This five-day ecotourism management training included all aspects of sustainable ecotourism management operations including, visitor management, guiding, information sharing and interpretation services, etc. In addition, fourteen community members who were interested on providing accommodation facilities to the eco-tourists were provided with a field visit to a nearby district to witness community-managed homestay facilities.

A bird watching tower in Chandragiri forest

A resting place established in Chandragiri forest (left) and ticket counter at Chandragiri ecotourism site (right)
All photo credits on this double page: Anita Shrestha/HIMAWANTI Nepal

Trekking in the nature trail in Chandragiri forest

Tourist information board

PUBLICITY AND MARKETING

The following activities were conducted for publicity and marketing:

- Preparation of a brochure
- Erection of an information board
- Establishing communication with the cable car company
- Establishment of a youth club to coordinate with 'Youth Network on Sustainable Development Nepal' for promotional activities.

In order to further ensure the marketing potential, the project supported organizing programs to establish linkages with other important stakeholders, such as Nepal Tourism Board, Chandragiri Municipality, etc.

Brochure and newspaper project promotion

COMMUNITY-BASED WOODEN HANDICRAFT BUSINESS DEVELOPMENT

In Makawanpur district, wooden handicraft production and marketing through sustainable extraction of raw material from the community forests was chosen to enhance the livelihoods of community members.

RATIONALE

As per the Central Bank Annual Report of 2020 – 2021, Nepal earned 490.3 million rupees through the export of handicrafts. China was the major buyer (292.7 million rupees) followed by India (50.9 million rupees). There is an increasing demand for wooden and bamboo handicrafts in capital Kathmandu. However, there is a shortages of supply due to the decreasing raw material availability coupled with limited number of skilled craftsmen to meet that demand. Since Makawanpur is located close to Kathmandu, and community forests in Makawanpur district are rich in raw materials such as dead trees, there exists a considerable potential to develop wooden handicraft industry in Makawanpur.

Wooden handicraft presented by the project director. Photo credit: Anita Shrestha/HIMAWANTI Nepal

BOX 9: Value Chain Analysis of wooden handicrafts

The value chain analysis of wooden handicraft was conducted in Makwanpur to investigate in-depth information such as the current status of raw materials, products in demand, technologies available, average prices, potential markets and supply chains, etc. The study also identified major species used for wooden handicraft, their growth potential, and market trend (demand and supply) of products.

Based on the analysis, a value chain map of wooden handicrafts was developed with the support of district level stakeholders. The map indicated the chain actors, their roles, as well as interrelationships. The study has also helped to develop a strategy to sustain the strengths of the value chain as well as good governance.

The value chain analysis of wooden handicrafts revealed that some district level stakeholders, including traders are willing to provide support to the producers at community level. There are national level stakeholders who can undertake skill development trainings, develop market linkages as well as organize exhibitions. The exporters are interested to export handicraft products to developed economies such as USA, UK and European economies, if the quality of products and required quantity can be assured at the community level.

The study also identified several challenges in developing this enterprise. There is no specific legal provision available in Nepal for the registration of community based forest enterprises. They are currently registered under the category of small and cottage industries. In addition, transportation of forest products is regulated by several institutions such as forest offices, police check points, municipalities, and tax offices without a proper coordination among them. Since the production volume of micro-enterprises is relatively small, there are constrains to access modern technology and to maintain quality standards.

SELECTION OF ENTREPRENEURS

Initially 41 female and 9 male members from four CFUGs were selected to engage with handicraft making. They were recommended by their respective CFUGs on the basis of wellbeing ranking, while also in particular their interest and capacity for this entrepreneurship was taken into consideration.

CAPACITY BUILDING

A six-month basic level wooden handicraft training was organized to provide the participants with the basic skills on making wooden and bamboo handicrafts such as, wooden masks, photo frames, and baskets. Essential basic wood carving tools and equipment were procured through project funds and distributed among participants as an initial capital. Two specialized trainers were hired by the project to conduct the training.

Basic training on wooden handicraft making (left) and advanced training on handicraft making (right). All photo credits on this double page: Anita Shrestha/HIMAWANTI Nepal

Thirty female participants who have successfully completed the basic training were selected for a three-month advanced training program to further enhance their skills. A well-known specialist wooden handicraft artist in Nepal was hired as the resource person to conduct this training program.

MARKETING OF WOODEN HANDICRAFTS

Two community wooden handicraft micro enterprises have been established in Makwanpur district with the project support. They were identified as "Shram Jivi Women Handicraft Industry" of Piple Pokhara and Niureni chisapani CFUGs, and "Mankamana Women Handicraft Small Scale Industries" of Manakmana CFUG.

The project also helped to establish a sales center in Makawanpur district and to register it in the Small Cottage Enterprise Office. The center is used to exhibit and sell community handicraft products. Key district level stakeholders such as District Handicraft Association, Federation of Nepalese Industry and Commerce, and different cooperatives operating within the district were identified as the potential partners.

Two exhibitions were organized to explore market opportunities for the handicraft products made by the entrepreneurs. The first one was organized in Makwanpur with the support of the Regional Forest Directorate during the Annual Assembly of Foresters of Central Development Region. Opportunity was provided to the

Using machinery for handicraft making (left) and community wooden handicraft sales center in Hetauda town, Makwanpur district (right)

women group of Makwanpur to display, promote and sell their handicraft products during that event. The second exhibition was organized in Kathmandu during the "World Wood Day" celebration program held during 21st March - 25th March 2016. That was an opportunity to display and promote wooden handicrafts to the local, national, as well as international participants who attended the event.

Rural home in Chaughada Hetada, Makwanpur district.
All photo credits on this double page: Anita Shrestha/HIMAWANTI Nepal

2.4 PROMOTION OF ALTERNATIVE ENERGY SOURCES

RATIONALE

The promotion of alternative energy sources among CFUGs aimed to deliver multiple benefits, not only for the community members, but also for the environment, as it can reduce the pressure on forests as a main source of fuel wood for the community. Since women are primarily responsible to collect firewood for household use, it will directly reduce the workload of women in their day to day activities. In addition, it will reduce indoor and outdoor air pollution and greenhouse gas emissions.

INSTALLATION OF BIOGAS UNITS

The project supported the installation of 75 biogas units in ultra-poor households in three targeted sites. The households were selected on the basis of their interest, availability of land, as well as accessibility to sewage and cow dung. The biogas units were constructed according to the guideline and construction manual developed by the Biogas Support Program of Nepal. Each site was assigned with a local resource person to provide required guidance on regular maintenance and reporting.

Construction of biogas units (left) and biogas for household cooking (right)

INSTALLATION OF SOLAR PANELS

90 Solar Panels (55 watt) along with batteries and charger controllers, and 5 LED bulbs each were distributed among poor households of CFUGs. They were identified through the well-being ranking exercise conducted within CFUGs. The solar light helps school children to engage with their studies during the nigh time. It also reduces the burden of purchasing kerosene for the poor households.

Distribution of solar panels to community members

Installation of solar electricity systems

INSTALLATION OF IMPROVED COOK STOVES

A total of 300 Improved Cook Stove (ICS) units were distributed among households of CFUGs in all three project sites. Each ICS unit consists of a firewood chamber, airflow chamber, two cooking chambers, and a chimney. The unit enables complete burning of biomass and thus reduces indoor air pollution.

Completed ICS unit for reducing indoor air pollution (left) and fixing improved cook stoves (right). All photo credits on this double page: Anita Shrestha/HIMAWANTI Nepal

BENEFITS

The project has derived a range of direct and indirect benefits to the community as well as to the environment.

FOR FORESTS

The establishment of demonstration plots and capacity development programs conducted during the project period has created enhanced capacity and knowledge among CFUG members on managing their community forests in a more sustainable manner. Improved technical knowledge among users on appropriate silvicultural practices, as well as the use of proper tools and implements, minimized the damage caused to the forest during extraction operations. It improved the forest health and assisted the natural regeneration process.

Enrichment planting operations conducted in community forests also helped to rehabilitate degraded forests. A total of 11,000 seedlings were planted in community forests in Sarlahi. The main species used were Sissoo, Eucalyptus, and Sal, in association with Lagerstroemia, Bombax, Terminalia, Syzygium, Tectona and Emblica. Fodder and forage species were also incorporated in appropriate locations. Broom grass (Amriso), Ipil, Bauhinia, and Napier were also planted in some sites.

In Makwanpur, 450 seedlings of medicinal plants were planted in Newreni Chishapani, and Piple Pokhara community forests. In Kathmandu, approximately 10,500 seedlings of Pinus and Cupressus were planted in Masine area of Chandragiri, where in Sarlahi, about 10,000 seedlings were planted in Radhakrishna community forests with species such as Shorea, Emblica, and Paulinia.

FOR WOMEN

The project has brought about positive impacts on women empowerment in all project sites. In several CFUGs, women members were elevated to leadership positions, such as executive committee members, treasurers, secretaries or chairpersons. They were actively involved in decision-making processes of forest management, and their knowledge and entrepreneurship skills have been developed by engaging them in micro-enterprises.

Six-month basic level training on wooden handicraft capacitated 42 women selected from deprived and marginalized groups in Makawanpur community for making wooden handicrafts. The advanced training provided with project support enabled 28 women in producing better quality products using modern machinery. A sales center has been established in the city of Makawanpur (Hetauda Bazaar) and the property rights of the center had been handed over to the female members of CFUGs.

In Sarlahi, 75 women have been involved and trained in aromatic herbs business. One women group organized themselves into a cooperative society, whereas another group went on to make an agreement with a private company to market their products and to explore opportunities for value addition.

Poor Women in the project sites also benefited directly as well as indirectly through the alternative energy development program implemented by the project. Improved cook stoves and biogas units reduced their burden on collecting fuel wood for cooking, as well as save time spent for cooking. Moreover, reduced use of fuel wood for cooking has improved the indoor air quality which will invariably support their respiratory health. Some women have reported that the clean environment in kitchen after installing the ICS led to more support from their men for household work than before.

FOR THE LOCAL COMMUNITY

Some underprivileged households and women in the community forest user groups received opportunities to make additional income through business activities created by the project. Business entities established by the project, supported economic sustainability of the participating communities.

Fast growing fodder, fruits, and other multipurpose tree species produced in the project nurseries supplied planting material for community members to plant in their agricultural fields and home gardens. These tree species are expected to support their basic needs such as fuel wood, timber, fodder, and medicines.

The alternative energy component of the project helped poor households economically as well as socially. The solar electrification systems immensely supported children in engaging with their studies during the night. In addition, it reduced the use of kerosene lamps and thereby improved indoor air quality of the households.

PROJECT SUSTAINABILITY

For a project to achieve its long-term objectives, it is important that the infrastructure created and approaches promoted by the project is sustained beyond the project period. Major factors affecting actual accrual of benefits after the completion of project period may include, quality of project design, availability of financing for follow-up activities, acceptance of the project among the key stakeholders, support from the political leadership, and institutional capacities of the executing partner etc.

BOX 10: Project Sustainability

Project Sustainability is the ability of a project to continue its mission or program far into the future. All projects have to end eventually, but the project impact should continue. Donors want to see how the project and its impact will outlive beyond their direct involvement in the project.

A project can be sustainable in three main categories: organizational, financial, and community sustainability.

- *Community sustainability* is how the community carries out the project activities even after the implementing partner/support organization leaves.
- *Financial sustainability* is how the financial support required for the project or the organization will continue after the external financial support has ended.
- *Organizational sustainability* is how the community organization itself continues to function after the project.

Laglage Pakha ecotourism committe, Kathmandu District, with their children and final evaluation team from APFNet. Photo credit: Anita Shrestha/HIMAWANTI Nepal

Following initiatives undertaken during the implementation period of this project can be considered as important measures to ensure the suitability of project interventions.

- All CFUGs have been strengthened by educating members to visualize their organizational weaknesses and encouraging them to rectify those shortcomings.
- Collaboration with key stakeholders such as forestry organizations has been strengthened to ensure continuous engagement with the CFUGs.
- Financial sustainability of ecotourism operations has been ensured by fixing entry ticket prices and guide fees rationally.
- Additional investments on ecotourism business development has been secured through sensitizing the Provincial Government authorities.
- Continuous support for the wooden handicraft business has been secured through the linkages established with the District Handicraft Association and the Federation of Nepalese Industry and Commerce.
- The cohesion and collaboration among members involved with aromatic herb business has been strengthened through the establishment of a registered NTFP cooperative.
- Additional land has been granted by the Forest User Groups to expand the herb cultivation.
- Marketing opportunities of aromatic herb products has been guaranteed by entering into a purchasing agreement with a private company.
- Steps taken to explore the potentials of obtaining organic certification for aromatic herb products would enhance the product value as well as the market potential.

LESSONS LEARNED

Important lessons learned from the project can be summarized as follows;

Success of any project is much attributed to its clear concept, design, and achievable objectives defined at the inception. This project was designed by a consortium of capable implementing agency who possess sound knowledge and years of experience in working with local communities under local conditions and circumstances.

Community organizations can function efficiently and effectively only if the good governance mechanisms are embedded within their organizations. Improved governance mechanisms promoted by this project has helped to develop the belief and trust among the CFUG members and eventually resulted in their enhanced commitment and sense of ownership to the project initiatives.

Understanding the local political situation and interrelations of stakeholders are crucial for the sustainability of project interventions. It was observed that this project was successful in mobilizing key stakeholders and sensitizing local government political leadership positively.

Ecotourism can play an important role in protecting the natural environment and creating social and economic benefits for local communities. Chandragiri forest ecotourism program has been designed and executed with due considerations to the important elements of this concept and thereby proven to be successful in achieving its desired objectives.

A simple, but systematic tool is required for communities to visualize their organizational strengths as well as the areas that need attention and improvement. Spider tool used by the project to improve the governance mechanisms of CFUGs proved to be a good assessment tool for that purpose.

Community nurseries are sustainable only if they are demand-driven and operated as revenue generating business entities. The nursery component of the project fell short of this fundamental requirement and hence, its continuation beyond project period is uncertain.

Field demonstrations are ideally to be designed with pre-tested and proven models to achieve their desired objectives. In this project, different thinning regimes have been tested in demonstration plots with the objective of upscaling the best silvicultural practices in community forests. In this regard, if the demonstration is confined to a pre-tested successful model, it would have been more effective in stimulating CFUGs to replicate that in their community forests.

Disadvantaged communities and women are capable of establishing and managing income generation activities if they are provided with proper guidance and training". Two women-led enterprises identified and promoted by this project proved to be successful as they were designed and implemented with due consideration to those prerequisites.

Microenterprises are powerful tools to enhance the livelihoods of rural communities provided that they are designed to suit the local circumstances. Three microenterprises business ideas promoted by the project turned out to be successful as they were properly designed with clear understanding about the availability of resources and market potential.

Securing people's basic needs, such as supplying energy and creating healthy living environment is vital for enhanced social participation and potentially alleviating poverty. It was shown that the provision of alternative energy component to marginalized families has benefited them in terms of health, as well as financially.

Women-centric NGOs are better positioned to reach out to disadvantageous women in rural communities and empowering them more effectively. This can be recognized as a significant factor behind the success of female-led microenterprises in Makwanpur and Sarlahi.

CONCLUSIONS

This project had primarily focused on community forestry and the economic empowerment of women, each being important in their own rights. Project interventions had successfully addressed sustainability of community forest use while linking that to economic empowerment of women in rural communities. In other words, the design of the project activities has met the specific objectives of this project.

The project has had an impact on improving the social stability, economic progress, and environmental sustainability of local communities. Given the fact that only a limited number of households in the 13 CFUGs was involved in project activities, additional efforts are required to build up the capacity of the remaining members of the CFUGs. Continuous engagement of key stakeholders such as forestry organizations on a regular basis is also vital to ensure the sustainability and scaling up of project interventions.

Several lessons learned and good practices tested by this project have provided new insights to community forestry approaches that can be replicated and scaled up in Nepal, as well as in other economies with similar conditions, in an appropriate manner.

Future entrepreneurs after the successful completion of the wooden handicraft training.
Photo credit: Anita Shrestha/HIMAWANTI Nepal

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