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Acronyms

ACAP/KMTNC	Annapurna Conservation Area Project of King Mehendra Trust for Nature Conservation
ADB/N	Agricultural Development Bank/Nepal
ANSAB	Asia Network for Small Scale Bioresources
CARE/Nepal	Cooperative Assistance of Relief Everywhere, Nepal
CECI/CBED	Community Based Economic Development Project of Canadian Center for International Studies and Cooperation, Nepal
CFUG	Community Forest User Group
DDC	District Development Committee
DFO	District Forest Office(r)
DOF	Department of Forests
EWV	EnterpriseWorks Worldwide
FECOFUN	Federation of Community Forestry Users, Nepal
FUG	Forest User Group
HCDA	Humla Conservation and Development Association
HPPCL	Herbs Processing and Production Company Ltd.
IEDI	Industrial Enterprise Development Institute
MEDEP	Micro-Enterprise Development Project of UNDP
MFSC	Ministry of Forests and Soil Conservation
MHPL	Malika Handmade Paper Pvt. Ltd.
NACRMP	Nepal Australia Community Resource Management Project
NGO	Non-Governmental Organization
NP	Natural Products
NNN	Nepal NTFP Network
NSCFP	Nepal Swiss Community Forestry Project
NTFP	Non-Timber Forest Product
NUKCFP	Nepal-UK Community Forestry Project
OP	Operational Plan
SEANN	South & East Asian NTFP Network
SNV/Nepal	Netherlands Development Organization, Nepal
UMN	United Mission to Nepal
USAID	United States Agency for International Development
VDC	Village Development Committee
WWF	World Wildlife Fund, Nepal

I. SUMMARY OF ACTIVITY STATUS AND PROGRESS

a. Introduction

This report presents the progress of the “Enterprise-Based Biodiversity Conservation” project of USAID’s Global Conservation Program for the period of September 30, 1999 (the start of the project) through May 31, 2000.

Implemented by EnterpriseWorks Worldwide (EWW) and Asia Network for Small Scale Bioresources (ANSAB), the overall project goal is to conserve the globally significant mountain biodiversity of western Nepal through community forest management linked to enterprise development. The project aims to bring 30,000 hectares under improved management in five years (this is in addition to 13,352 already under effective management), and strengthen and improve policy implementation in the area of community forestry nation-wide. The priority regions for this project are the subtropical, temperate, and alpine forests of Nepal’s eastern Himalayas, which contain strong botanical diversity both in terms of species richness and endemism and suffer from a high level of anthropogenic disturbance. The project area (which includes the districts of Humla, Jumla, Bajhang, Dolpa, Mugu, and Kalikot) is considered a “hotspot” based on Norman Myers’ conservation setting priorities. The project activities for year one were reduced and redirected to the extent that USAID committed its financial resources (40% of the original plan) and the U.S. Embassy in Nepal placed Kalikot and Dolpa Districts on excluded and restricted status respectively due to Maoist activities. Accordingly, the project has initiated work in three rather than six districts: Bajhang, Humla and Jumla. Work in these districts is on track and EWW and ANSAB do not expect the Maoist activities to hamper project progress this year.

b. Highlights

Major accomplishments include:

- Completed and submitted annual work plan and performance monitoring plan to USAID; plans approved by USAID.
- Hired field staff, conducted orientation training, and set up sub-field offices in Jumla and Humla.
- Held a national level workshop in enterprise development and management that supports enterprise-based biodiversity conservation.
- Prioritized geographic areas and communities and initiated or expanded forestry user group (FUG) process with 14 groups in Humla, Jumla, and Bajhang. 2,990 hectares as of May 2000 have been handed over to communities and are now classified under improved management (the goal for year one was 2,500 hectares). An additional 4,700 hectares have the potential to be brought under improved management within the initial targeted sites.
- The Malika Handmade Paper enterprise in Bajhang was launched which processes Lokta (a perennial shrub) into handmade paper.
- Draft completed of biodiversity conservation monitoring system and biodiversity monitoring activities initiated with FUGs, including a species study for Lokta in Bajhang.

c. Table of Activity Status for Year One

Table 1 – Activity Status for Year One

Activity Number	Activity Title	Status*	Page
Objective 1 Expand and institutionalize participatory resource management and conservation under Nepal's forestry policies and legislation			
1.a	Prioritization of geographical area and community groups	On-track	6
1.b	Community forestry orientation and training design	On-track	9
1.c	Community forestry best practices workshops	On-track	11
1.d	District community forestry federation workshop	Delayed	11
1.e	National level workshop	Completed	12
Objective 2 Enhance knowledge and skills of forest user groups in sustainable use and conservation of biological resources			
2.a	Staffing and training	Completed	13
2.b	Conflict resolution for community forest mapping	On-track	14
2.c	Technical and logistical support to communities	On-track	15
2.d	Promotion of community forestry agenda	On-track	17
Objective 3 Promote use of natural products in an ecologically sustainable and socially equitable manner			
3.a	Business development services to communities	On-track	18
3.b	Business plans for community-based enterprises	On-track	19
3.c	Business management training	On-track	19
3.d	Enterprise start-up capital	On-track	20
Objective 4 Generate scientific information for the sustainable management of biological resources			
4.a	Biodiversity conservation monitoring system design	On-track	20
4.b	Harvested species regeneration status	On-track	21
4.c	Information dissemination	Delayed	22

*Status may include activities that are completed, on-track, delayed, mixed performance, or cancelled.

II. DETAILED DESCRIPTION OF SITE PROGRESS

a. Key short and long-term program objectives for the site

Long-Term Objectives

The project's four key long-term objectives are to:

- a) expand and institutionalize participatory natural resource management and conservation practices within the framework of community forestry in Nepal,
- b) enhance knowledge and skills of FUGs and local harvesters in sustainable use and conservation of bioresources,
- c) promote commercial use of natural products in an ecologically sustainable and socially equitable manner, and
- d) generate scientific information required for the sustainable management of the biological resources.

Short term (year one) objectives

The objectives for year one of the project are to:

- Set priorities for Community Forest User Group (CFUG) development in the districts of Jumla, Humla, and Bajhang and generate support for the CFUG process with FUGs and District Forest Officials (DFOs),
- Accelerate progress and disseminate lessons learned on enterprise-based biodiversity conservation for all of Nepal and the Karnali area in particular through a national level workshop and other forums,
- Facilitate conflict resolution, community forest mapping and FUG registration that will result in at least 2,500 hectares being brought under improved management,
- Provide economic incentives for biodiversity conservation through the development of three enterprises that are linked to *in situ* biodiversity, and
- Design and implement a biodiversity conservation monitoring system that will monitor commercially harvested species and overall biodiversity health.

b. Activity Description

Activity 1.a

Prioritization of geographical area and community groups

Summary of major achievements

Meetings were held with District Forestry Officials, community members, FUG members, and district-based NGO staff in Jumla, Humla, and Bajhang to prioritize project areas for year one. Project sites within each of the three districts were selected based on ecosystem vulnerability, ecological connectivity, abundance of commercially potential plant species, community interests and enterprise opportunities. To finalize the field activities, project locations and to promote coordination among forestry stakeholders, one district level workshop was held in each of the three districts. The results of this process are summarized below.

Humla - Communities in the Village Development Committees (VDCs) of Mimi, Melchham and Darma have been selected for new FUG activities. Potential expansion areas include Thehe, Kharpunath, Srimastha, Rimi, and Rodikot. Selection and prioritization of working area was done in consultation with Humla Conservation and Development Association (HCDA), the DFO, the District Development Committee (DDC) and other local NGOs working in this field. Three FUGs in Kharpunath and one FUG in Rodikot need forest area surveying, resource inventory, and revision of operational plans. To conserve the threatened forest and pasture area of Thehe, Srimastha, and Rimi VDCs, technical support in organizing groups, preparing operational plans, and building capacity of the forest users is to be provided.

Jumla - Patarasi VDC has been identified as a priority area for this year, where 3 FUGs already exist with a total of 139 ha of community forests. These areas have a scope to bring 900 additional hectares of forests under FUG control through the CFUG review and reformulation process. The areas selected for subsequent years include communities in the VDCs of

Chumchaur, Dillichaur, Patmara, Depalgaun, Gajhyangkot and Guthichaur and the forest and meadows these communities have been traditionally using.

Bajhang - ANSAB started the resource management and enterprise development activities in Kailash and Hemantawada VDCs before this project with support from the Ford Foundation. The potential extension areas for the conservation activities include Kotedeval, Rilu, Masta, Datola, Gadarayo, Melbisauna, and Majhigaun. The second priority areas identified include Pipalkot, Kapalseri, Dewlikot, Dahabagar, Syandi, and Sunkaunda. The project activities have been concentrated in Kailash and Hemantawada VDCs. While Kailash and Hemantawada will continue to receive technical support, Kotdewal, Gadarayo and the other VDCs noted in Table 2 will be emphasized for the remainder of this year.

Table 2 lists the areas and summarizes forest type and condition to be included in year one activities. Table 4 under activity 2.c gives further details on FUG area.

Table 2. Baseline Status of Forest and Communities Selected for 1999-2000

DISTRICTS SETTLEMENTS	FOREST TYPE AND CONDITION
Bajhang	
Shree Binayak Pimidanda, Kailash VDC	Mixed conifer (Pinus, Abies, Taxus) and broad-leaf (Quercus, Betula) with NTFPs (Lokta); natural forests with some severely degraded patches; 25 ha of the forest area handed over before the project and an additional area of 912 ha has been brought under community forestry.
Hemantawada, Hemantawada VDC	Mixed conifer (Pinus, Abies, Taxus) and broad-leaf (Quercus, Juglans, Lyonia) forest with some NTFPs; natural forests with portions of degraded areas; community forestry area of 1293 ha.
Binayak, Gadaraya VDC	Mixed forest of conifer (Pinus, Abies, Taxus) and broad-leaf (Quercus, Betula) with a few NTFPs; natural forests with some degraded portions; 119 ha of forest handed over and an additional area of 200 ha potential for community forestry.
Lahare, Gadaraya	A mixed forest of conifer (Pinus, Abies, Taxus) and broad-leaf (Quercus, Betula) containing several NTFPs; natural forests with portions of degraded areas; 232 ha of forest handed over before the project and an additional area of 100 ha potential for community forestry.
Ranada, Kotdewol VDC	A mixed forest of conifer (Pinus, Abies, Taxus) and broad-leaf (Quercus, Betula) with several NTFPs; patches of good natural forests with some degraded portions; 40 ha of the forest handed over before the project and an additional area of about 500 ha potential for community forestry.
Jumla	
Phurkisalla, Patmara VDC	Natural forest of <i>Pinus wallichiana</i> with several NTFPs (Jatamansi, Kutki, Gutchi chyau); 63 ha of forest handed over before the project and an additional area of 300 ha potential for community forestry.
Lanteli Patmara VDC	Conifer forest (Pinus wallichiana, Abies pindrow) with several NTFPs (Jatamansi, Kutki, Gutchi chyau, Bikh, Nigalo); 56 ha of forest handed over before the project and an additional area of 300 ha potential for community forestry.
Bhaleni Patmara VDC	Conifer forest (Pinus wallichiana, Abies pindrow) with several NTFPs (Jatamansi, Kutki, Gutchi chyau, Bhojpatra); 5 ha of forest handed over before the project and an additional area of 300 ha potential for community forestry.
Mathachaur Patmara VDC	Conifer forest (Pinus wallichiana, Juniperous) with a few NTFPs; mostly degraded; about 100 ha potential for community forestry.
Humla	
Malika, Melchham VDC	Mixed forest of conifer (Pinus wallichiana) and broadleaf (Quercus, Rhododnedron) with plenty of NTFPs; mostly good forest cover but NTFP species under severe extraction pressure; 120 ha of forest handed over before the project and an additional area of about 600 ha potential for community forestry.
Melchham, Melchham VDC	Mixed forest of conifer (Pinus wallichiana) and broadleaf (Quercus, Rhododnedron) with several NTFPs; good forest cover but portions adjoining to settlements are severely degraded, and commercial species overharvested; 100 ha of forest handed over before the project and an additional area of about 400 ha potential for community forestry.
Melchham (new), Melchham VDC	Mixed forest of conifer (Pinus wallichiana) and broadleaf (Quercus, Rhododnedron) with several NTFPs; natural forest with several degraded patches; about 400 ha potential for community forestry.
Rocha, Mimi VDC	Mixed forest of conifer (Pinus wallichiana) and broadleaf (Quercus, Rhododnedron) with plenty NTFPs (Jatamansi); natural forest with several degraded patches due to over-harvesting, excessive grazing and recurrent fire; 50 ha handed over before the project and about 500 ha potential for community forestry.
Darma, Darma VDC	Mixed forest of conifer (Pinus wallichiana) and broadleaf (Quercus, Rhododnedron) with plenty NTFPs; natural forest with degraded patches; about 100 ha potential for community forestry.

Table of progress in meeting key activity benchmarks

Benchmark/Output for Objective 1.a	Status
Coordinate with District Forest Officials and community members in Humla to prioritize CFUG development	Completed
Coordinate with District Forest Officials and community members in Jumla to prioritize CFUG development	Completed
Coordinate with District Forest Officials and community members in Bajhang to prioritize CFUG development	Completed
Hold Nepalganj regional workshop for 5 districts in August	On-track
List CFUGs to be included in the project for Humla, Jumla, and Bajhang and initiate preparatory work for the same exercise in remaining districts	Completed

Key management issues

Site selection and work in on track for year one, but if Maoist activities continue at the same levels in Kalikot and/or increase in Dolpa, the project may not be able to expand into these areas as planned in year two. If this happens, the project plans to expand coverage in existing districts to achieve its overall goal.

Activity 1.b

Community forestry orientation and training design

Summary of major achievements

One community level orientation was held in Jumla and two community level training workshops were held in Bajhang. The Jumla orientation was held March 17, 2000 and included 13 participants from 3 FUGs, the District Development Committee (DDC), the Federation of Community Forestry Users, Nepal (FECOFUN), DFO and relevant NGOs working in the district. Project strategies and local level coordination were emphasized and GCP working sites were identified. In Bajhang the first workshop had 12 participants from five FUGS. Resource management activities and capacity building were emphasized. An outcome of the workshop was a network called HERBIL that the participants use to strengthen their interaction on resource management and enterprise development. Bajhang’s second workshop was held in April 2000 and was attended by eight FUGs, DFO staff, a FECOFUN representative, and local NGO staff. In the training workshop, the participants shared their community forestry as well as NTFP marketing and enterprise development experiences. The workshop group identified threats to their resource base, causes and possible solutions. They also realized the need for a monitoring plan to assure the conservation of the resource base and began work on instituting more formal monitoring.

Training design and materials/tools being developed focus on facilitating the community through the CFUG process and strengthening and expanding existing FUGs in order to attain effective resource management. The main steps of the CFUG process and the corresponding step from USAID’s improved management indicators chart are given in Table 3.

Table 3. Steps in Nepal CFUG Process Compared to Steps on USAID's Indicators Chart

STEPS IN THE NEPAL CFUG PROCESS*	STEPS ON USAID'S INDICATORS CHART
1. Identification of the forest area and users including conflict resolution.	Local site assessment
2. Formation of forest user group (FUG) including preparation of a group constitution.	Human and institutional capacity developed
3. Forest identification and demarcation including preparation of a participatory resource map. Representatives from the adjacent settlements to the forest are involved in the process of delineating forest boundaries.	Local site assessment
4. Forest management operational plan (OP). In preparing the OP, the following activities must be done: community extension, survey and resource assessment and analysis, social situation assessment analysis, resource use plan.	Management actions designed with appropriate participation
5. Negotiation with forestry authority and handing over of community forest.	Change in legal status
6. Implementation, monitoring and improvement and implementation of the plan.	Management action implemented; Ongoing monitoring and evaluation; Adaptive management

*see annex 1 for more detailed explanation of Nepal CFUG process

Table of progress in meeting key activity benchmarks

Benchmark/Output for Objective 1.b	Status
Community forestry orientation in Bajhang	Completed
Community forestry orientation in Jumla	Completed
Community forestry orientation in Humla	On-track
Report on training needs for each community	On-track
Design training materials for each community based on needs	On-track

Activity 1.c

Community forestry best practices workshop

Summary of major achievements

No major achievements to report this period. A community forestry best practices workshop is planned to take place in Jumla in September. This will bring together the FUGs, NGOs, DFOs and other interested stakeholders in the district to share and learn innovative ideas and lessons.

Table of progress in meeting key activity benchmarks

Benchmark/Output for Objective 1.c	Status
Workshop in Jumla sharing best practices from Humla, Bajhang, Dolakha, Baglung and the Nepal NTFP Network	On-track
Workshop report	On-track

Activity 1.d

District community forestry federation workshop

Summary of major achievements

A community forestry federation workshop for the Humla District Federation is planned for July. This is delayed by one month by request of the FUGs to make it more convenient for most of the members to attend. Bajhang FUGs were assisted in networking and organizing into a district level federation of FUGs. The representative of the newly established federation attended a national council meeting to share experiences and explore opportunities in resource management and economic development. Members of the Jumla FUG Federation had a separate workshop, which was held to identify and prioritize the resource management and enterprise development activities for the Jumla district.

Table of progress in meeting key activity benchmarks

Benchmark/Output for Objective 1.d	Status
District wide workshop in Humla for CFUGs, DFOs and others	Delayed
Workshop report	Delayed
Further solidification of community forest federation in Humla	Delayed
Dissemination of lessons learned to establish and strengthen federations in other districts	On-track

Activity 1.e

National level workshop

Summary of major achievements

A five-day national training workshop on “Enterprise Development Planning in the NTFPs Sector” was held by ANSAB, March 27-31, 2000 at Budol, Kavre for 27 participants. The training had a good mix of participants from Annapurna Conservation Area Project of King Mehendra Trust for Nature Conservation (ACAP/KMTNC); Community Based Economic Development Project of Canadian Center for International Studies and Cooperation, Nepal (CECI/CBED); and United Mission to Nepal (UMN); the Ministry of Forests and Soil Conservation (MFSC); Nepal-UK Community Forestry Project (NUKCFP); Nepal Swiss Community Forestry Project (NSCFP); Nepal Australia Community Resource Management Project (NACRMP); FUGs; FECOFUN; DDCs, and NTFP entrepreneurs from across Nepal. The workshop was designed to enhance the capacity of Nepalese institutions to render business development services to micro and small-scale entrepreneurs in the natural products sector. The training was targeted at enterprise development facilitators in institutions that do community enterprise development. The workshop provided an opportunity for the participants to share, discuss and learn the basic concepts, process and techniques of enterprise development in a forest/natural products context given the prevailing social, ecological and technological situation.

Using a variety of participatory and interactive methods, the workshop covered issues and themes related to developing a new enterprise that is compatible with the natural resource base and FUG forest management operational plans. While ANSAB professional staff facilitated the training, resources persons in marketing, technology, resource management, and policy were drawn from various national and international institutions such as MFSC, Industrial Enterprise Development Institute (IEDI), Herbs Processing and Production Co. (HPPCL), Department of Forests (DOF), Agricultural Development Bank/ Nepal (ADB/N) and EWW to share their knowledge and experiences. A non-timber forest product (NTFP) enterprise training manual was written by EWW and ANSAB and tested with the participants during the training. Feedback from the participants is being incorporated into the final version of the manual.

The training had the following main modules:

- **NTFP Enterprise Development Overview:** Presentation of the main components of an NTFP enterprise development: marketing, resource assessment, assessment of regulatory environment, and business fundamentals.
- **Tools and Techniques:** How to use innovative tools and techniques to assess the business opportunities and challenges in the NTFP sector (e.g. subsector analysis, participatory business planning).
- **Completing an Actual Enterprise Development Plan:** After three days of classroom discussions and group work on the above topics, there was a full day field exercise at a nearby FUG (Gaukhureshwor FUG at Dhulikhel). Participants were divided into four groups, each working on one aspect of the enterprise development framework. The participants assessed and analyzed the existing enterprise activities of the FUG, including Argeli processing (an enterprise that produces white-skin from the Argeli plant). The participants

presented their observations and findings the following day. The information was organized and used to develop a business plan for Argeli and Big Cardamom that will allow the FUG to create sustainable benefits for the users.

- **Action Planning for Follow-up Activities:** At the end of the workshop, the participants identified several activities that may be initiated after the training in their respective areas. The action plans reflected tremendous interest and commitment on the part of the participants towards gaining more knowledge, initiating enterprise activities, and exploring further training opportunities.

Table of progress in meeting key activity benchmarks

Benchmark/Output for Objective 1.e	Status
National Level Workshop on NTFP Enterprise Development	Completed
Workshop Material/Report	Completed
Expansion of Enterprise Resource Center	On-track
NTFP Enterprise Development Manual	On-track

Key management issues

In organizing the workshop, ANSAB has gained new levels of confidence and insight into training intervention for building the capacity of Nepalese institutions to deliver marketing and enterprise development services in the NTFP sector. The number of training participants was lower than projected and ANSAB and EWW plan to use the NTFP Enterprise Resource Center, housed at ANSAB (supported by the Ford Foundation and a USAID Micro-Enterprise Best Practices grant), to continue training services in this area. Funding for this workshop also came from the USAID Micro-Enterprise Best Practices grant. The need for enterprise development training integrated with FUG operational plans and maximizes returns from NTFPs was articulated by the training participants as a vital need for Nepal and a necessary component for effective biodiversity conservation using the community forestry model.

Activity 2.a

Staffing and training

Summary of major achievements

Field staff planned for year one were hired and trained in the project’s implementation approach and strategies. Specific training in organizing forest user groups, conflict resolution, preparing resource management plans, natural resource based enterprise planning was completed. See Annex 2 for the list of staff recruited for this program. In Jumla and Humla sub-field offices were set up.

Table of progress in meeting key activity benchmarks

Benchmark/Output for Objective 2.a	Status
Staff Hired for Jumla	Completed
Staff Hired for Humla	Completed

Staff Training	Completed
Sub-Field Offices Opened	Completed

Activity 2.b

Conflict resolution for community forest mapping

Summary of major achievements

Conflict resolution training with FUGs was initiated in Jumla, Humla, and Bajhang, with the most significant progress made in Bajhang. ANSAB facilitated land surveying, preparation and review of the forest management operational plans and meetings among communities.

In Bajhang, the Binayak Pimidanda community representatives learned conflict resolution skills by surveying 900 ha forest. The forest is adjacent to the Hemantawada, Ranara, and Kotdeval communities. In Hemantawada, there was an unsolved conflict on forest area demarcation and use rights among the communities. The district forest office (DFO) of Bajhang had been trying to resolve the conflict for ten years. ANSAB facilitated the communities coming together to identify and clarify their needs and areas of interest for each individual settlement. The representatives of each settlement of Hemantawada came to understand that it was in their best interest to resolve the boundary conflict to gain greater community resource management control. After ten years, the boundary dispute has been settled to the satisfaction of both communities. The Lahare and Binayak CFUGs of Bajhang District also received conflict resolution training during the period.

Table of progress in meeting key activity benchmarks

Benchmark/Output for Objective 2.b	Status
Boundary and land use conflicts resolved for targeted CFUGs in Humla so that their resource management plans and constitutions can be approved.	On-track
Boundary and land use conflicts resolved for targeted CFUGs in Jumla so that their resource management plans and constitutions can be approved.	On-track
Boundary and land use conflicts resolved for targeted CFUGs in Bajhang so that their resource management plans and constitutions can be approved.	On-track

Key management issues

In addressing conflict management the support of the district forest office and gaining the trust of all the communities affected is essential to effective resolution. Effective conflict resolution is essential in building greater resource management capacity that results in biodiversity conservation. In Jumla and Bajhang the support from the DFOs started out very mixed, but as conflicts are being resolved and tangible progress is being made in forest management operational plans and establishing NTFP enterprise, the DFOs are becoming stronger supporters of the overall goals of the project.

Activity 2.c

Technical and logistical support to communities

Summary of major achievements

Of the target 2500 ha to be brought under improved management this year, as of May 31, 2000, 2990 ha of forest and pasturelands have been handed over to community groups and are receiving GCP project assistance to improve resource management (2205 ha new due to project efforts and 785 existing ha, although previously handed over, lacked effective resource management). ANSAB and EWW have initiated work with 14 FUGs (or groups to be formed into FUGs) in the Districts of Humla, Jumla, and Bajhang this year. Table 4 gives an overview of the 14 FUGs assisted this year and the type of technical assistance being provided.

Humla - The communities in the VDCs of Mimi, Melchham and Darma will be assisted in forming FUGs and completing forest management operational plans that will result in community forest hand over. In addition, post formation support to the existing FUGs is in high demand by community groups and the District Forest Office.

Jumla - Patarasi VDC has been identified as a priority area for this year, where 3 FUGs already exist with a total of 139 ha of community forests. These areas have a scope to bring 900 additional hectares of forests under FUG control through the CFUG review and reformulation process. The additional 900 hectares will bring around 380 additional households into a FUG. The existing FUGs have a very small area of forest handed over and their operational plans are rather trivial to guide the groups in sustainable resource use.

Bajhang - Two FUGs (Binayak Pimidand and Hemantawada) were formed after identifying the users of the respected forests. The FUGs prepared their constitution and formed user group committees to coordinate the forestry activities. The FUGs were registered at the district forest office. Those two FUGs also received technical support to prepare their forest management operation plans. The forest area of 912 ha and 1294 ha was handed over to Binayak Pimidanda and Hemantawada FUGs respectively to improve the resource management system with the participation of local communities. Also in Bajhang, Lahare and Binayak FUGs received technical support in biological resource assessment and surveying of their forest areas to improve their forest management operation plans. These two FUGs will receive forest management plan preparation support in the coming months.

Other Technical and Logistical Support Forest rangers in Bajhang were trained on NTFP assessment, surveying forest boundaries, and preparing operational plans that incorporate NTFPs. DFOs and NGO staff of Bajhang and Jumla, and other participants from different districts and organizations were given a training to strengthen their capacity in forest management with a focus on addressing increased market demand for NTFPs.

Table 4. Status of Community Forestry in GCP Project Area as of May 31, 2000 and Technical Assistance Provided and Planned

Name of FUG	No. of HH	Current CF Area (ha)	Status as of May 2000	Planned	
				Area for CF expansion	Activities
Bajhang					
Shree Binayak Pimidanda, Kailash VDC	217	912.22	FUG reformulated, CF area expanded from 25 ha, forest operational plan (OP) prepared for the expanded area, OP implementation started	-	Technical support in resource management and enterprise operation
Hemantawada, Hemantawada VDC	440	1293.53	FUG formed, operational plan prepared, CF handed over, OP implementation started	-	Technical support in resource management and NTFP marketing
Lahare, Gadaraya	81	231.72	Operational plan being revised	100	Technical support in OP preparation
Binayak, Gadaraya VDC	79	118.6	Operational plan being revised	200	Technical support in OP preparation
Ranada, Kotdewol VDC		40	Operational plan being revised	500	Technical support in OP preparation
Jumla					
Phurkisalla, Patmara VDC	121	62.75	Operational plan being revised	300	Reformulation of FUG/Technical support in OP preparation
Lamтели, Patmara VDC	163	56.16	Operational plan being revised	300	Reformulation of FUG/Technical support in OP preparation
Bhaleni, Patmara VDC	116	5.48	Operational plan being revised	300	Reformulation of FUG/Technical support in OP preparation
Mathachaur, Patmara VDC	TBD	--	FUG being formed.	100	User identification.
Humla					
Malika, Melchham VDC	39	120	Initial discussions/rapport building with FUGs started	600	Reformulation of FUG/and OP preparation
Melchham, Melchham VDC	55	100	Initial discussions/rapport building with FUGs started	400	Reformulation of FUG/and OP preparation
Melchham (new), Melchham VDC	100	-	Initial identification of forest and communities	400	Formulation of FUG/and OP preparation
Rocha, Mimi VDC	33	50.25	-	500	Initial discussions/Rapport building with FUGs started
Darma, Darma VDC	100	-	Discussions started with DFO regarding the status of the FUG	1000	User identification
Totals					
14 FUGs	1,544 HH	2,990.71		4700 ha	

Table of progress in meeting key activity benchmarks

Benchmark/Output for Objective 2.c	Status
1 operational CFUG in Humla	On-track
3 operational CFUGs in Jumla	On-track
2 operational CFUGs in Bhajhang	Completed
A total of 6 operational CFUGs with a combined total of at least 2,500 ha under improved management by end of year one	On-track

Activity 2.d

Promotion of community forestry agenda

Summary of major achievements

Biodiversity conservation and management issues are shared among the members of the NNN (Nepal Non Timber Forest Network). With support from Ford Foundation, the NNN publishes and distributes the *Himalayan Bioresources* newsletter covering conservation and enterprise issues at the community and international levels. The latest issue was published in May 2000 (see Annex 3). The national level workshop in Kathmandu also helped to disseminate the conservation issues through the participants to their colleagues. During this reporting period, ANSAB collaborated with Netherlands Development Organization, Nepal (SNV/Nepal), Cooperative Assistance of Relief Everywhere (CARE/Nepal) and Micro-Enterprise Development Project of UNDP (MEDEP), reaching many project staff, government officials, local leaders, forest users, and community members to discuss issues in resource management and conservation through different levels of training and meetings.

Table of progress in meeting key activity benchmarks

Benchmark/Output for Objective 2.d	Status
Nepal NTFP Network Meeting to promote community forestry agenda	Completed
National level forum on community forestry	Completed
Newsletter publication	Completed
Policy support for CFUG efforts throughout Nepal, especially Karnali	On-track

Key management issues

ANSAB launched the Nepal NTFP Network three years ago and it has grown rapidly to include 250 individual and institutional members across Nepal. With broad representation from government, communities, research institutions, NGOs, and private industry, the NNN has become the definitive organization in Nepal on NTFP issues. ANSAB's key role in the NNN is a critical component of the project. Site and FUG specific lessons learned through the GCP supported project are expected to be used by other NNN members to bring much larger areas of Nepal under improved and effective biodiversity conservation management. As the project progresses, EWW and ANSAB will work to document such successes.

Activity 3.a

Business development services to communities

Summary of major achievements

- Training held in Budol, Kavre for the community owned enterprises of Bajhang; DFOs from Jumla, Bajhang and Taplejung; NGO staff from Jumla and many other districts on enterprise development and planning.
- In Humla, a community owned enterprise was also provided business development and marketing support as part of promoting ecologically sustainable enterprises. To promote such enterprises, market information and technical support have been provided to enterprises, government officials, NGOs staff and community members.
- In Bajhang, business development services were concentrated in the first six months to launch Malika Handmade Paper Pvt. Ltd. (MHPL) operated by the FUG in Kailash. With technical support from ANSAB, MHPL started producing and selling handmade paper from the Lokta (*Daphne bholua* and *D. papyraceae*) plants in April/May 2000. Lokta is harvested sustainably from the community-managed forest. MHPL received business development support after developing a business plan. Prior to MHPL, community members were selling Lokta to other paper making enterprises and not capturing the value-added potential. The business development services provided include:
 - advising on legal formation and royalty collection that now provides a mechanism for collecting a conservation fee to conserve the forest;
 - providing technical assistance on paper making, equipment choice, and factory design;
 - training in general management and financial management;
 - facilitating market linkages and sales contracts for paper orders (MHPL has reached an agreement with a Kathmandu-based exporter for the sale of MHPL paper);
 - devising with the FUG and MHPL an enterprise-monitoring plan that tracks Lokta resource use and regeneration and overall company operations to gain maximum efficiency.

Table of progress in meeting key activity benchmarks

Benchmark/Output for Objective 3.a	Status
FUGs in Humla provided with business development services	On-track
FUGs in Jumla provided with business development services	On-track
FUGs in Bajhang provided with business development services	On-track
A natural product, biodiversity conservation enterprise launched	Completed

Activity 3.b

Business plans for community-based enterprises

Summary of major achievements

A business plan was prepared for Malika Handmade Paper Pvt. Ltd. (MHPL), a community-based enterprise in Kailash VDC of Bajhang that was initiated under the Ford grant. With technical support from ANSAB, the MHPL started producing and selling handmade paper from the fibers of the Lokta plants, harvested from the community managed forest.

Table of progress in meeting key activity benchmarks

Benchmark/Output for Objective 3.b	Status
Business plan for a paper making enterprise in Bajhang	Completed
Business plan for an enterprise in Jumla	On-track

Activity 3.c

Business management training

Summary of major achievements

A three-month-long handmade paper making training started in March 2000 for 11 processing staff of MHPL and other members of Kailash VDC in Bajhang. The training collaborated with the district office of Small and Cottage Industry. The MHPL Company manager and three MHPL board members completed a training on account and record keeping. The capacity of the company manager and chairman of the company was further strengthened through hands-on training and actual problem solving during the “debugging” and training phase of the enterprise start-up. Handmade paper production management, financial analysis and management, human resource management, raw material procurement and marketing of the products were all addressed.

Participation of the MHPL manager from Bajhang and two ANSAB field staff from Jumla along with other 24 participants from different organizations in a five-day long national training workshop on “Enterprise Development Planning in NTFP Sector” also helped to strengthen their capacity and build confidence (see activity 1.e). The training workshop provided them with an opportunity to share and learn from actual community experience in enterprise development and management techniques for NTFP-based enterprise.

Table of progress in meeting key activity benchmarks

Benchmark/Output for Objective 3.c	Status
Operation and management skills training for Bajhang FUGs	On-track
Operation and management skills training in other districts	On-track

Activity 3.d

Enterprise start-up capital

Summary of major achievements

Start-up capital for the Malika Handmade Paper Pvt. Ltd. (MHPL) in Bajhang was secured from the Ford Foundation through a seed capital equity fund, the Village Development Committee (VDC) of Kailash, and in-kind contributions from the FUG member. ANSAB is exploring additional financial support for Bajhang and other districts at the district level and through local banks.

Table of progress in meeting key activity benchmarks

Benchmark/Output for Objective 3.d	Status
Bajhang assisted in securing capital for enterprise start-up	Completed
Other districts assisted in securing capital for enterprise start-up	On-track

Activity 4.a

Biodiversity conservation monitoring system

Summary of major achievements

A biological monitoring draft plan was designed and detailed maps for Humla, Jumla, and Bajhang project areas are being developed (see Annex 5 for draft maps). The biological monitoring plan includes guidelines for bio-physical data collection, suggested species specific monitoring regiments and how indicator species and human behavior changes can be used as proxies in assessing overall biodiversity health; and threats assessment exercises.

The outcomes of the biological baseline collection will be used by the FUGs to prepare resource conservation and harvesting plans. These plans will also generate the data required for calculating growth rate and sustainable harvest rates for selected products and inform the project participants about the general situation and impact of project activities on biodiversity.

The FUGs in Kailash, Bajhang have already completed many of the steps in the draft biological monitoring plan, including the threats assessment, initiation of species specific study for Lokta, and baseline bio-physical data collection that allowed them to complete their FUG agreement. The monitoring plan is incorporating feedback from the experience with the Bajhang groups as well as lessons from the Biodiversity Conservation Network (BCN) supported Humla work.

The overall goal of biological monitoring is to promote sustainable resource use practices by integrating the process of monitoring into the project implementation and enterprise development process. In addition, it is expected that FUGs in the project area will be able to institutionalize the monitoring system at the community level. The specific objectives of the plan will be:

- to develop a system for ANSAB and local communities to collect information on the condition of natural resources and major threats to biodiversity for planning and managing resources
- to assist local communities in determining sustainable harvest rates for the economically valued species and forewarn and enable them to take corrective measures if required
- to determine appropriate biological and social monitoring indices, and methods of measuring them
- to build and enhance the capability of local communities to use the monitoring indices
- to monitor the impact of the project activities on overall biodiversity as well as specific plant species.

Table of progress in meeting key activity benchmarks

Benchmark/Output for Objective 4.a	Status
Biological and selected social baseline data collected and analyzed for Humla and Jumla.	On-track
Biological and selected social baseline data collected and analyzed for Bajhang.	Completed
Baseline report	On-track
Biodiversity monitoring system put in place	On-track

Activity 4.b

Harvested species regeneration status

Summary of major achievements

In May 2000, Dr. Singh of India came to Nepal to work with ANSAB on determining the key regeneration factors for commercially harvested species in Humla and Jumla, as well as give overall input and advise on the biological monitoring plan. Dr. Singh designed and implemented the biological monitoring component for EWW's BCN project in India. While Dr. Singh focused on species regeneration issues to help establish the main factors that need to be monitored to assure sustainable harvesting, his work was also integrated with the overall biological monitoring plan.

Table of progress in meeting key activity benchmarks

Benchmark/Output for Objective 4.b	Status
Dr. Singh works with ANSAB to determine regeneration factors	Completed
Establish regeneration plots in Humla and Jumla	On-track
Establish guidelines for ecosystem-wide sustainable resource management practices, sustainable harvest methods and quantities for targeted species	On-track

Activity 4.c

Information dissemination

Summary of major achievements

Given the budget shortfall for year one, this activity was postponed until year two, with the exception of information dissemination that has taken place as part of the activities already described above.

III. SUCCESS STORIES

Community forestry policy

National, regional, and local level policy formation, revision, and implementation:

Collaborating with NNN, a review of national forest policy and regulation was completed. Led by ANSAB, the NNN members provided the Ministry of Forest and Soil Conservation through the forest department recommendation on revising the national forestry regulation.

Community Forestry Firsts for the District of Bajhang: The district authority of forests in Bajhang accepted the “local policy formation” for the first time by approving the constitutions of two FUGs and their operational plans that include commercial use of forest products from larger than usual community forest areas (FUG area went from 25 to 912 hectares). Also in Bajhang a federation of forest user groups was formed and strengthened. The federations are constituted to create awareness among FUGs on forest policies and regulation and help implement the forest policies in the district.

Level of FUG and DFO participation in initial phase of project

ANSAB and EWW are ahead of projections for the number of FUGS to work with in year one (14 identified versus 6 projected) and number of hectares brought under improved management (2990 ha achieved to date versus 2500 projected for year one). A critical component of this success is the excellent rapport the ANSAB staff has cultivated with the district forest offices (DFO) in Jumla and Bajhang. At the start of the project, these DFOs were less than enthusiastic about community forestry and the GCP project and had little or no understanding of how NTFPs could be incorporated into forest management operational plans to support conservation.

Through the training providing through the GCP project and the enterprise launch in Bajhang, the DFO and neighboring communities better understand the project's goal and are taking an active role in facilitating expansion activities with other FUGs.

Annex I

COMMUNITY FORESTRY IMPLEMENTATION IN HIGH MOUNTAIN

The government of Nepal has been promoting a participatory management approach to conservation and better utilization of the forestry resource base. This approach is commonly referred to as community forestry, and implemented through community forest user group (CFUG) agreements. In a CFUG agreement, management responsibilities and rights are handed over to traditional forest users for the betterment of the forest and the people living there. In determining which lands will be handed over to the local people, the forestry policies set three criteria: interest of the community; accessibility of the forest (distance from the settlement); and management capacity of the users.

Forest acts, regulations and directives provide guidelines for the community forestry program. However, the forestry policies are not properly translated into forest acts and regulations. This ambiguity enables forestry authorities to make arbitrary or subjective decisions regarding forest handover. A forest management operational plan (OP) is required before management responsibility is handed over to a local community. In many cases these plans do not incorporate non-timber forest products or cover too small an area to achieve effective biodiversity conservation. ANSAB has been working with specific forest user groups to develop effective operational plans and achieve hand-over of lands. ANSAB also has been working on policy initiatives with the government that will rationalize CFUG implementing practices. This document explains the six basic steps and requirements in the CFUG process for handing forests over to local forest users.

- 1) **Identification of the forest area and users:** This is the first step in the forest handover process. This process requires identifying all the households who are the users of the particular forest. To aid in identification, a participatory social map is prepared which includes: traditional resource use system; proximity to the forest; and structure of the settlement(s). Based on this information, all forest users are identified, including single households. A household survey is carried out to collect information on population structure; number of animals; and land size and productivity. The total number of surveyed households makes up a forest user group (FUG).

The user identification and group formation process can become lengthy and complicated when there is conflict between settlements or individuals in asserting forest area for the group, and use right and responsibility of the members. The forest users are entitled to a certain level of membership based on their use rights and management responsibility (primary, secondary, etc). The FUG identification work is tied to the forest area, but at this time actual forest demarcation does not take place. The next step is an assessment of the people's interests, capacity of forest management, and the forestry extension activities. This requires various levels of community interaction.

- 2) **Formation of the forest user group (FUG):** In order for the identified households to have a legal and institutional status as a group, the households need to prepare a constitution. After different levels of meetings and organizing an assembly, the group prepares a constitution, which covers group management and functioning. The constitution includes: general characteristics of the group; group objectives; membership status; formation of the executive committee; meeting of the committee; assembly of the group; roles and responsibilities of the forest users and committee members; fund collection, utilization and control mechanism; provision of forest protection and management; provision for enterprise development and other development activities; staffing and amendment of the constitution. After preparing the constitution, the group assembly forms a provisional executing committee, which is responsible for registering the group with the forestry authority and leading the forest handover process.
- 3) **Forest identification and demarcation:** This process actually begins along with the first process of user identification. After the FUG formation, the actual forest demarcation starts with preparing the participatory resource map. Conflicts can arise with outside members and other user groups. The conflict resolution exercises and participatory forest boundary demarcation exercises take place. While delineating forest boundaries, representatives from the adjacent settlements to the forest are also involved in the process.
- 4) **Forest management operational plan preparation:** This plan describes the forest area, stocking, growth and yield, sustainable harvest rate; augments resource harvesting rate and techniques, regeneration establishment methods, forest protection and development systems; and equips the group with a monitoring system. To prepare an operation plan, several activities must take place:
 - a) **Extension:** Awareness campaigns, various interest group, meetings and informal discussion with users continue to educate the users on government policies, rules and regulations, importance of the forest, and scope of forest management for their livelihood. This information also motivates the people to achieve sustainable resource management.
 - b) **Surveying and resource assessment:** At the forest boundaries, surveying is done using tape, a compass, slope measuring instruments and topographical, land use, and other maps. Participation by the FUG and adjacent communities is necessary for this process. While surveying, blocking of the forest is done based on topographic conditions and forest management consideration. When survey and blocking are complete, area calculation and mapping is done. A forest resource inventory is carried out taking representative samples to generate the information on forest condition, stocking, growth, and yield. The information collected helps determine the sustainable supply of the product and the best method of resource management. Each block is divided into more or less homogenous strata. Random or systematic (depending on the forest condition) sampling is done to measure the parameters and gain the appropriate sampling intensity and plot size for different forest resources.

- c) **Social situation assessment:** Social structure is assessed through the household survey, focus group discussion, and interviews. The assessment collects information and data on the population structure, agricultural and animal husbandry situation, as well as other productive and income generating opportunities existing. Secondary sources of information are also used during this stage.
- d) **Analysis:** Data and information generated from the forest resource assessment and social situation assessment are analyzed to determine the supply of forest products and the community's demand for the economic products. The analysis further aids in identifying proper ways for the community to manage their resources for their benefit and biodiversity health.
- e) **Preparing the resource management plan:** Based on the information generated thus far, resource management options are explored giving the highest regards to existing traditional systems. The management plan covers the activities for a specified period of time. The plan can be revised throughout the period and can be renewed after the period. Forest management operational plans include the following:
- General introduction about the community, forest and the plan
 - Objective of forest management
 - Condition of the forest including block (area, stock, regeneration)
 - Yield, growth rate, harvestable yield
 - Sustainable supply situation of the forest
 - Demand of the forest product in the community and in an accessible market
 - Resource management system: harvest rate, method, season (ensuring the sustainable harvest)
 - Forest product distribution and marketing
 - Regeneration management, forest protection and development activities and mechanism
 - Fund management
 - Penalties for offenders
 - Monitoring system

Contents of an example forest management operational plan

- Introduction
 - Forest user group
 - Forest area
 - Objective of forest management
 - Historical background and traditional forest management system
- Description of forests
 - Block
 - Sub-block
 (boundaries, area, slope, aspect, elevation, soil type, forest type, forest condition, crown cover, regeneration status, tree and NTFP species, stock of the species, growth, and harvestable yield)

- Forest management
 - Description of forest user group
 - Demand of forest products
 - Management of timber production areas
 - Management of firewood production areas
 - Management of fodder and grass production areas
 - Management of NTFP production areas
 - Management of commercial NTFPs
 - Detailed management plan for targeted NTFP
 - Management of grazing areas
 - Management of other forest products production areas (cattle bed, litter, etc.)
 - Management of regeneration
- Distribution and sales of forest products
- Forest protection system (including forest guarding and penalty provisions)
- Fund management
- Biological monitoring system
- Others (role of forest department, NGOs, and FUG association; forest products pricing mechanism, and operational plan amendment)

5) Negotiation with forestry authority and handing over of community forest:

The District Forest staff is involved in the preparation of the operational plan and forest surveying. The FUG negotiates with the district forest office for the forest area, forest harvesting and management system. The forest user group fields an application with the operational plan to the district forest office for forest hand over. When DFO receives the operational plan, they inform adjacent users about the forest to gain their consent. When every thing is found to be acceptable, the forest is handed over to the forest user group.

6) Implementation, monitoring and improvement of the plan:

The forest user group protects, manages, and utilizes the forest according to the management plan. While implementing the plan, the group holds several meetings and assemblies to decide the management and harvesting details. The forest user group committee manages the daily activities of the user group according to their constitution. The assembly of the group decides the major activities and checks and approves the activities performed by the committee. All the forest harvesting and monitoring activities are carried out in accordance with their management plan. If the FUG plans to perform any new forest management activities, they hold discussions, meetings, and an assembly to prepare a plan that is submitted to the district forest office for approval. The district forest office monitors the forest management activities of the group and provides suggestions from time to time.

Annex II

LIST OF GCP PROGRAM STAFF, NEPAL

Program Staff at ANSAB Central Office

Bhishma P. Subedi, Country Team Leader

Surya B. Binayee, Enterprise Development Officer

Hemant R Ojha, Natural Resource Management Officer

Ram Prasad Acharya, Community Forestry Officer

Surendra P. Singh, Forest Ecology and Biodiversity Specialist (Consultant)

Field Staff

Sushil Gyawali, Forest Ranger, Bajhang

Babu Ram Rijal, Forestry Extension Officer, Jumla

Shyam L Mahat, Field Coordinator, Jumla

Mun Bir Budha, Field Assistant, Jumla

Bishnu P Luitel, Forest Ranger, Humla

Chhakka Bdr. Lama, Director, Humla

Birkha B Sahi, Field Coordinator, Humla

Nurbu Lama, Field Assistant, Humla

Program Support Staff

Tika Ram Pantha, Finance/Administration Officer

Sama Shrestha, Assistant Program Officer

Sangita Amatya, Office Secretary

Binod Shrestha, Messenger

Radha Parajuli, Office Helper

Bal Krishna Neupane, Office Guard

Annex III

Himalayan Bioresources

Annex IV
Draft Maps

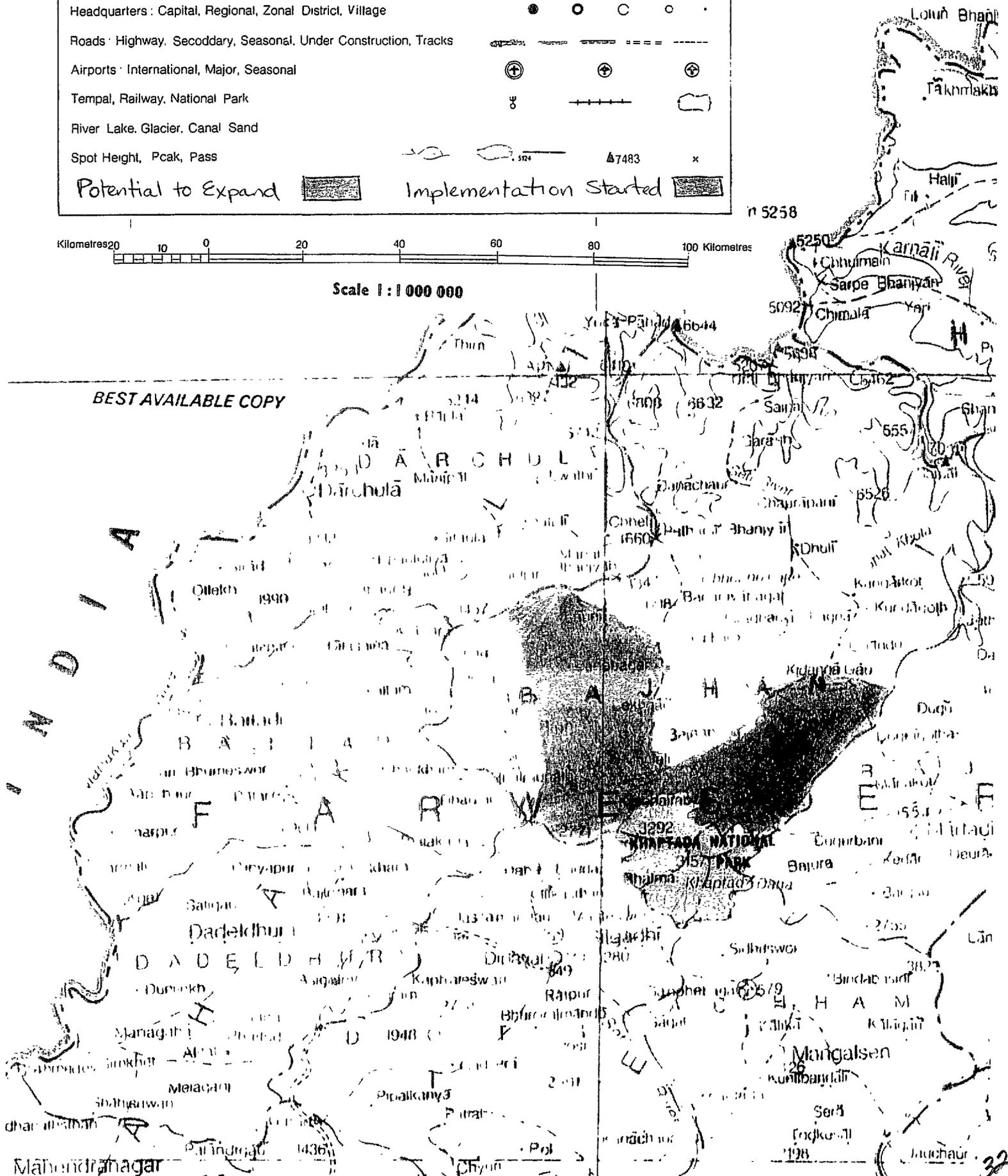
BAJHANG

Boundaries : International, Regional, Zonal, District	---
Headquarters : Capital, Regional, Zonal District, Village	● ○ ○ ○ ○
Roads : Highway, Secoddsary, Seasonal, Under Construction, Tracks	— — — — —
Airports : International, Major, Seasonal	⊕ ⊕ ⊕
Tempal, Railway, National Park	⌘ ———— ⊞
River Lake, Glacier, Canal Sand	~ ~ ~ ~ ~
Spot Height, Pcak, Pass	△ 7483 ×
Potential to Expand	▨
Implementation Started	▩



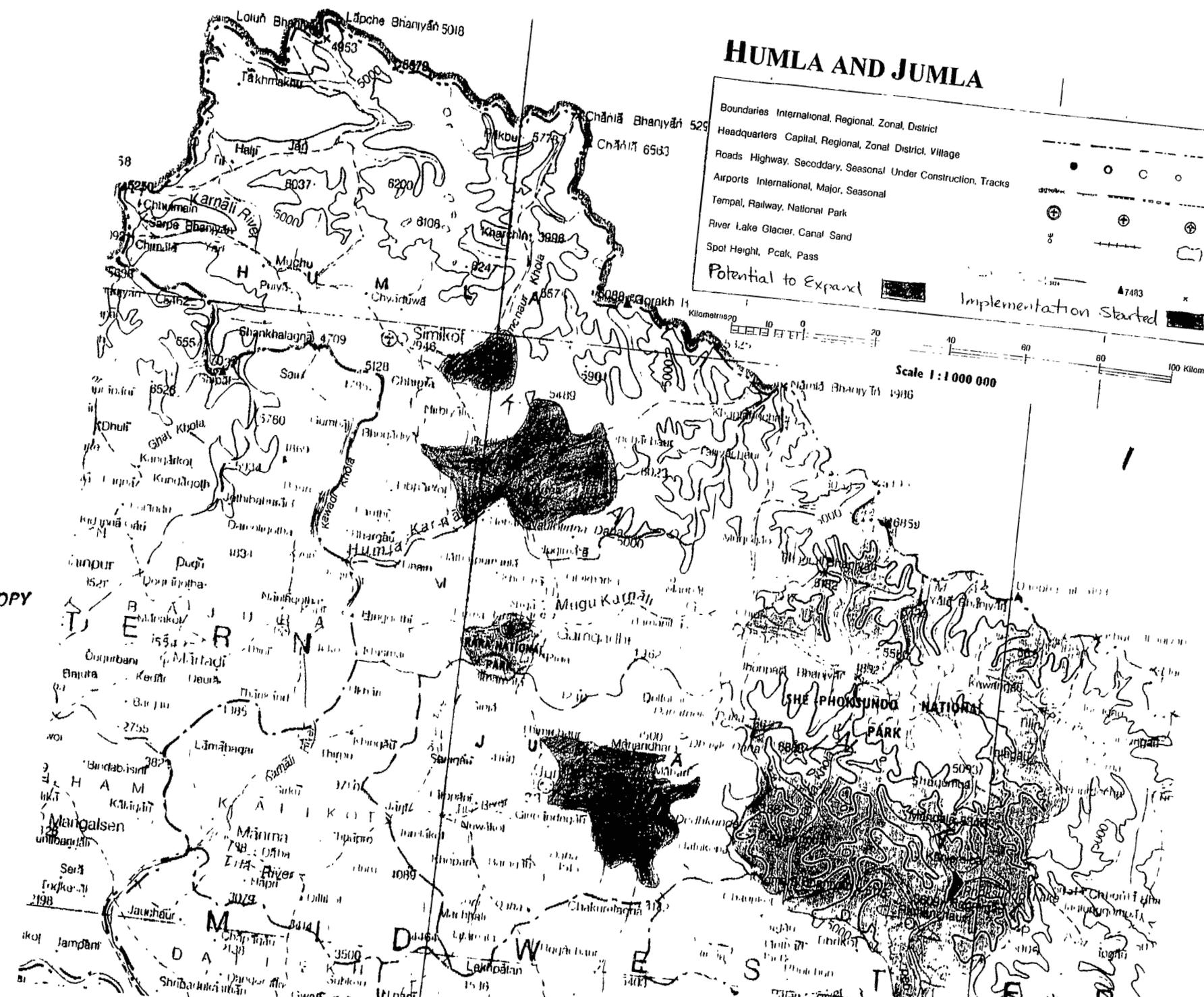
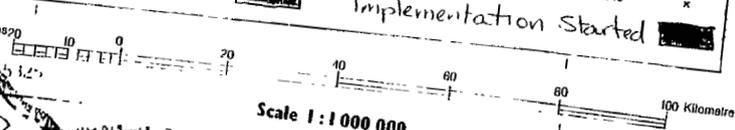
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HUMLA AND JUMLA

Boundaries International, Regional, Zonal, District
 Headquarters Capital, Regional, Zonal District, Village
 Roads Highway, Secondary, Seasonal Under Construction, Tracks
 Airports International, Major, Seasonal
 Tempal, Railway, National Park
 River Lake Glacier, Canal Sand
 Spot Height, Peak, Pass
 Potential to Expand
 Implementation Started



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Editorial

This NNN newsletter provides field-based experience from across Nepal and as more and more groups share their lessons it is becoming evident that enterprise-based biodiversity conservation is a viable, working strategy. Yet there is still much work to be done to share this strategy with all FUGs in Nepal. In this newsletter you will find a breadth of groups working on integrating NTFPs into community forestry and developing NTFP enterprises that are sustainable. Some common themes/lessons that were documented in the Biodiversity Conservation Networks project throughout Asia are again being independently articulated by other donor initiatives both in and outside Nepal.

Such common themes include

Tenure is not enough to reverse resource degradation. Community forestry initiatives must provide immediate economic incentives and technical assistance along with long term conservation strategies (see "Non-Timber Forest Product for Forest Conservation in Vietnam" and "Management of High Altitude Forests in Dolakha").

Biological monitoring will continue to be critical in NTFP enterprise development. For most species there is no documentation on sustainable harvesting levels. This is an uncharted area and the work being done in Nepal will help to inform community resource management across the country. The articles - "NTFP Management and Training Initiatives in the Nepal-Swiss Community Forestry Project Area" and "Incorporating NTFPs in a FUG Operational Plan . ." provide actual field experiences on this evolving area of study.

Enterprise interventions that provide immediate economic returns and are integrated with resource management strategies are having conservation impacts. See "Enterprise, Economic Initiatives, and Biodiversity Conservation: An Emerging Approach to Natural Resource Management" and "Local Level Processing of MAPs . . ."

Finally, NTFPs were first integrated into a FUG's management plan in 1996 in Humla, Nepal. The model showed how NTFP enterprise development could facilitate conservation by the local communities by providing technical knowledge and resources for protection. Four years later more and more FUGs across Nepal are integrating NTFPs into their management plans with similar benefits realized. Read about specific results in Janaki (NTFPs, Economic Incentives and sustainable Management . . .) and how The Federation of Community Forestry Users of Nepal (FECOFUN) is working to launch an extensive program in NTFPs nationwide ("FECOFUN's Initiative in the NTFP Sector").

Network Updates

Since September 1999, the Nepal NTFP Network (NNN) has held one NNN co-ordination committee (CC)* meeting and two NNN advisory group (AG)** meetings. These meetings produced policy recommendations, a revision of the NNN operational policy, a Market Information System (MIS) concept paper, and an outline of NTFP training. The sharing and collaboration among the network members has generated useful information and helped to avoid duplication of efforts and resources. The members have worked together to impact policies. The positive impact at the community level will be enhanced as members take more roles on the identified issues and analyzed course of action.

Operational Policy

A six-member task force formed by the CC reviewed and developed a draft NNN operational policy. This was presented at the co-ordination committee and advisory group meetings. The final draft is in place. The draft operation policy retains the informal nature of the network, with three independent but interacting elements (CC, AG, and members) that constitute the network.

Recommendations for the Revisions of Forestry Regulation

The Ministry of Forest and Soil Conservation (MFSC) officials at the CC meeting asked ANSAB to coordinate the development of policy recommendations in response to the Government's plan to amend NTFP regulations. In order to provide practical and effective recommendations, the Network, particularly the advisory group, discussed and compiled the NTFP-related policy issues based on field level experiences and studies in various parts of the country. The discussions and analyses identified 12 issues in six broad areas pertaining to NTFP regulation in the country. Suggestions were made for the amendment of certain aspects of the prevalent regulatory framework.

The six areas in which recommendations were made are:

- rationalization of collection permits and production, sale, and trade of forest products from private land and community forests,
- integration of NTFPs into community forests,
- promotion of forest based industries,
- rationalization of royalty rates and local taxes,
- modifications on collection and bans for selected forest products,
- improved communication between DFOs and FUG applicants.

The sixth advisory group meeting explored the status of MFSC policy recommendations. Attendees suggested ways to change policy. In the same meeting, a task force was directed to give NTFP inputs to the Forestry Sector Coordination Committee.

Market Information System (MIS)

A task force from the third AG meeting prepared a concept paper on marketing strategies for NTFPs. In the fourth meeting, the task force presented the MIS concept paper, which highlighted the participants; needed information; collection and dissemination mechanisms; and monitoring and sustainability issues. The sixth meeting had an expanded number of participants. This meeting revealed new challenges to the proposed MIS initiative. The new challenges include: reliability of information; unpredictable price trends; actual vs. offered prices; host institution; additional suggestions to pay for quality information and immediate pilot undertakings. These issues will be explored and analyzed before implementation.

Training

The fourth AG meeting formed a task force to explore NTFP training issues (emphasizing Nepali language materials). Local entrepreneurs, field facilitators, and policy makers need training on NTFP biology, marketing and policy. A writers' workshop is planned for 2000.

NNN Resource Center

ANSAB has been managing a resource center on behalf of the NNN since 1995. Recently, ANSAB established a Business Service Center (BSC), which started delivering business development services to Nepalese institutions and individuals in the natural product sector.

* The NNN-CC is the central level apex body of the network, and plays a pivotal role in supporting NTFP activities through policy changes and implementation of existing policies in favor of conservation and local economic growth.

**NNN-AG is an informal group of Nepal NTFP Network(NNN) members, who are active and/or interested in the field of NTFPs management.

Sustainable Management Initiatives

Enterprise, Economic Incentives and Biodiversity Conservation: An Emerging Approach to Natural Resources Management

- Bishma P. Subedi and Surya B. Binayee

An alternative approach to biodiversity conservation is emerging. This approach focuses exclusively on creating market-based incentives for participatory local conservation activities that complement the strict conservationist approach of traditional environmental organizations. The approach works from a community enterprise perspective on biodiversity conservation and sustainable resource use, instead of protected area management. Since 1994, ANSAB has been developing and testing this approach in biodiversity significant areas of Nepal in a participatory action research mode. This article highlights the lessons learned with some specific examples.

When developing an enterprise, it is important to manage the bioresources to conserve the biodiversity as well as raise the producer's standard of living. As a result, the enterprise will provide local people with income and employment, and consumers with eco-friendly natural products. Failure to link economic incentives with sustainable resource management may result in resource depletion. When the local people become aware of resource management options in developing a natural product-based enterprise, they realize the need for sustainable resource management. Enterprise development can potentially conserve resources while increasing the importance of the resource base to the society's economic well being. A few cases are presented below.

In Humla, the establishment of a community based enterprise to process aromatic plants from their forests and pastures created economic incentives for ecosystem conservation. This led to increased awareness of the value of, and threats to, biodiversity. The locals realized that the forests and pastures could not supply constant raw materials without a resource management system. The communities started the institutionalized resource management system within Nepal's community forestry framework. 19 FUGs were formed, bringing a total of over 13,000 hectares of forest and pastures under the improved community management system.

In Bajhang, the Kailash community established a hand-made paper making enterprise. The community manages about 2,400 hectares of forest. Forest management enables the community to supply their enterprise with raw materials in a sustainable manner. The enterprise is creating employment for more than 12 local people and generating cash income of more than

Rs. 7 lakhs for the Lokta and firewood collectors each year. The enterprise has also earned foreign currencies through exports of the paper.

In Dolakha, the Boch community established an enterprise to produce Argeli whiteskin, which is exported to Japan. The communities realized the need for resource management in order to sustain the raw material supply and the enterprise's income. The group is revising their community forest operational plan accordingly. This enterprise employs more than 17 local people, 15 of whom are women. At Jhyanku, the communities are establishing a paper making enterprise. They are preparing a resource management plan for their community forest of more than 1,000 hectares.

These cases demonstrate the marriage of natural resource management and income generation in Nepal. Thus far, the highlighted cases illustrate favorable impacts on natural resource conservation and income generation in rural communities. The poor collector joins the enterprise as an employee in the processing and seasonal activities to generate cash income from the collection and sale of herbs and firewood. The lesson learned is that enterprise and biodiversity conservation can co-exist when properly integrated.

Enterprise-based conservation links enterprise development to biodiversity conservation incentives. Lessons learned through our extensive experience in Nepal, as well as other Biodiversity Conservation Network projects in other countries, confirm that community enterprises are effective at biodiversity conservation when: directly linked to use of *in-situ* biodiversity, involve a community of stakeholders, generate short-term and long-term benefits, and link to an appropriate property rights system. Extraction and production models for biodiversity conservation are not effective when they promote more of the same activities and simply link producers to a market. It is important to establish enterprises that add value to the resources, change destructive practices, and allow communities to earn a livable income. Increasingly, the concept of market-based incentives is recognized as a necessary component of conservation and sustainable development.

*Mr. Subedi is Coordinator of ANSAB and
Mr. Binayee is Enterprise Development Officer of ANSAB.*

Non-Timber Forest Product for Forest Conservation in Vietnam

- Dr. Le Thj Phi

Throughout the last five decades, Vietnam has incurred significant forest loss. In 1943, the country had 14 million hectares of forest (43%) and in 1997, only 9.5 million hectares (28.2%). As a solution, the government has placed importance on the afforestation program. In the national forestry development strategy, three types of forestland were classified and given an action plan:

- 1) Forest plantation on the barren land;
- 2) Rehabilitation of severely degraded forest and zoning shrub areas for natural regeneration; and
- 3) Strict protection of good quality forests through the establishment of protected area.

One of the government's policies to promote forestry development is forestland ownership. All of the country's forestland should be allocated to households, collectives and organizations with user rights. The land allocation process is complicated as well as time and money-consuming. However, much progress was made in the last decade.

To afforest the barren areas, the government launched a national forestry program to support the farmers, forest enterprises and collectives in tree planting. International donors, NGOs and governments have been called to support the program financially and technically. The research units have been asked to study the forest and fruit species of high economic and environmental value for different areas of the country.

Policies and strategies have been adopted for the degraded forest and shrub areas. These lands will be allocated to households or collectives responsible for natural regeneration. These households and collectives have the right to collect minor forest products for cash income and branches for fuel.

After 5 years of implementation, deficiencies in community forestry strategy were apparent. For example, farmers violated regulations by cutting trees for poles and fuelwood. This was because they lacked the means to generate immediate income for basic subsistence. One solution is to enrich the forest by under-storey NTFPs of high value. The income from understorey species can help relieve pressure on upper-storey trees. Market research on NTFP cultivation was carried out over the last 5 years. Cardamom has been planted in Sapa and Amomum in Mai Chau.

In the national strategic plan for 1998-2010, the Ministry of Agriculture and Rural Development focuses on improvement and diversification of understorey NTFP models applicable for the different ecological areas of the country. The national plan also aims to plant trees on 5 million hectares of land.

Dr. Prof. Phi is a Senior Scientist at Non Wood Forest Product Research Centre, Hanoi, Vietnam

Management of High Altitude Forests in Dolakha

- Mani Ram Banjade

A study was carried out in two selected high altitude forests in Dolakha to assess existing management practices. A forest inventory and socio-economic survey were done at an elevation range of 2500-3800 m in two remote VDCs. Both areas are predominantly fir (*Abies spectabilis*)-hemlock (*Tsuga dumosa*) forests. At a lower altitude these forests are associated with *Quecus semicarpifolia*, and *Juniperous recurva* at a higher altitude. The understorey is comprised of normally distributed Lokta (*Daphne bholua*), *Rhododendron* and various medicinal and economically valuable plants such as Chiraito (*Swertia chiraita*), Bajradanti (*Potentilla fulgense*), Malingo (*Arundinaria spp.*), Jatamasi (*Nardostachys grandiflora*), Padamchal (*Rheum emodi*) etc.

These forests consist of mature and over mature trees. Disturbance to the forest from surrounding populations remains very high. Various issues were observed in the interface between local communities and the forests.

People of the mountain areas are isolated from mainstream development. Malnutrition, illiteracy, and price increases of basic materials exacerbate the plight of the people. The transhumance herding system has a special lifestyle, and occupational patterns. Population growth is extremely high in the area, exceeding the carrying capacity of the agricultural production. Despite the very low productivity of cattle in transhumance, cattle contribute a significant part of the economy for households and the expanding population.

The deforestation rate in the area is very high. Destructive and excessive use of forests, including roofing materials from wood plants, is persistent. Selective tree cutting threatens the existence of some valuable species. Clearance of forest for pasture, cultivation and settlement is severe. If logs are difficult to saw, people fell as many trees as possible to find suitable planks, leaving numerous trees to decay over time.

In spite of such challenges, there are plenty of opportunities to improve the livelihood of the people and the sustainable management of the natural resources. The community is homogeneous and hence can be organized into a viable local institution for sustainable forest management. To reduce the rate of degradation, forests must be handed over to the communities so that they feel ownership of the resources. Incorporation of NTFPs in the community forest operational plan will create economic opportunities for marginalized groups. Action research may be initiated to explore the possibilities of domestication and cultivation of NTFPs on private or communal land.

The introduction of more productive breeds of livestock may increase the economic status of the community. Youth targeted education on family planning and best use of resources is necessary to overcome the effects induced by skyrocketing population growth.

Mr. Banjade is working as Consultant at NSCFP.

NTFP Management and Training Initiatives in the Nepal-Swiss Community Forestry Project (NSCFP) Area

- Shambhu Prasad Dangal

The Nepal-Swiss Community Forestry Project (NSCFP) is working with the Forest User Groups (FUG) on natural resource mobilization in three middle hill districts of Nepal - Dolakha, Ramechhap and Okhaldunga. The main objective of the project is to achieve sustainable management of forest resources through Forest Users Groups. Non-Timber Forest Product management is one of the main income generating activities for the FUGs.

This project covers subtropical to Alpine zones, which include hundreds of NTFPs with high potential for FUG income generation. The major marketable products found in the project districts are Lokta, Argeli, Machino, Allo, Chiraito, Majhitho, Sunpati, Pakhanbed, Padamchal, Jatamasi, Bikh, Thulo Okhati, Panchaunle, Yarsagumba, Silajit, Gums and Resins etc. Hundreds of NTFPs are found in the project area, but it is very difficult to estimate the sustainable harvesting level. Many products are harvested and marketed from the districts without considering resource sustainability. One example of resource exploitation is the decreasing availability of Chiraito.

There are some hand made paper factories in the districts. The raw material for handmade paper is Lokta. Some distillation plants for aromatic and medicinal plants have been established through cooperatives and private investors in the districts. However, most of the products are marketed in crude form. Bark of Argeli (also called Mitumata) is marketed in Kathmandu and exported to Japan. All of these NTFPs are collected from Government and Community Forests.

Neither District Forest Office nor Community Forest User Group knows the sustainable harvesting level. For this information, one needs to assess the resources and the harvesting method. To overcome this lack of knowledge, DFOs started organizing various activities with NSCFP support. These programs include joint field exercises on resource assessment; training on NTFP management to the DFO staff and FUG members; IGA training for users; DhamiJakri workshops for traditional medicinal healers; cross visits and study tours. The main objective of these activities is to promote NTFP management and sustainability.

A training needs assessment revealed the various skill requirements and knowledge needed regarding NTFP management. A training package was designed accordingly. The major contents of the training are as follows:

- * methodology on prioritizing NTFPs;
- * species identification;
- * assessment and sustainable harvesting;
- * understanding the general principle of processing different products;
- * marketing aspects of some prioritized species.

This training exercise provides a herbarium of NTFPs available in the districts for use by the District Forest Office. After the training, it is assumed that participants are able to maintain a herbarium for their own use. After the general training, the projects provide necessary support to a FUG managing an NTFP.

The project is trying to develop a complete training manual for NTFP management as well as an NTFP assessment guideline. All manuals and guidelines are pre-tested in real field situations. Since NTFP management is an emerging issue, distinctly different from timber product assessment and management, there is insufficient management experience within the project personnel and DFO staffs. Hence, we seek to join hands with other projects and interested parties for collaborative work.

Mr. Dangal is Forestry Action Research Coordinator at NSCFP

FECOFUN's Initiatives on NTFP Sector

- Hari P. Dhungana

The Federation of Community Forestry Users, Nepal (FECOFUN) strives to promote the strength and self-reliance of forest user groups in the country. Being an active member of NNN and representative of principal stakeholders of NTFPs, FECOFUN initiated interaction with regulatory and supporting organizations and has initiated activities at the ground level. The forest user groups, aware of the importance and traditional use of NTFPs, have not realized the financial benefits that can be accrued from them. Since community forests constitute a significant part of the total forest area of the Nepal hills, FECOFUN believes NTFP initiatives should be incorporated into community forestry systems. There is gross insufficiency of information with respect to commercial cultivation, methods of regeneration, sustainable harvesting techniques, processing or value-added productions, and marketing among FUGs and other stakeholders. Proper intervention mechanisms in these areas will benefit the FUGs and stakeholders.

FECOFUN is considering an extensive program in the NTFP sector for the forthcoming years. A series of workshops on the "Production of Non Timber Forest Products: A Means for Poverty Alleviation" are being organized on a development region basis throughout Nepal. These workshops intend to help members of the sector understand and prioritize actions to address the FUGs' needs and capacities. Three workshops have been held in three development regions (Far Western, Mid-Western and Eastern). These workshops explored the overall prospects of NTFP development under community forest management systems, with particular reference to poverty alleviation. Workshop participants shared NTFP significance and policy issues pertinent to them. The participants also identified and shared ongoing and likely income generating activities (IGAs). They then developed mechanisms for incorporating NTFP and other IGAs into community forest operational plans.

FECOFUN is particularly concerned with the recent orders made by the Department of Forests concerning the green tree felling. It is related to confining forest users to subsistence practices and halts users' efforts to commercially use their resources. Such steps taken by the government are in many instances discouraging conservation and sustainable use of NTFPs. There are frequent cases of harassment made by the government offices during transit of medicinal plant products by the users. Forest rules have banned some species for collection, sale, transport or export. Yet this ban does not guarantee the safety of such species through illicit exploitation. There is a need to identify the real status of such species and to ascertain whether such ban is a right way to ensure conservation of such species. The government should recognize the possibility of raising living standards of the people through more liberal policy and regulations on NTFP management and trade.

Mr. Dhungana is Program Officer at FECOFUN.

IDRC's Research Needs in NTFPs-Based Biodiversity Conservation

- Madhav Karki

The potential of NTFPs in improving livelihoods, preserving natural ecosystems and generating employment are well recognized but in the absence of concrete measures not much have been achieved so far. The rich biodiversity and ethnobotanical heritage of the third world countries position these resources as a key component for achieving sustainable management of forest resources. However, a number of challenges lie on the way to realize the real potential of this sub-sector. One of the major constraints is the lack of innovative and dynamic resource conservation, development and management methods, options and strategies that can augment the depleting wild resources. Due to the lack of enabling policies at central, provincial and local levels, non-availability of appropriate technology and sustainable management tools, and non-involvement of the concerned community, incorporation of NTFPs as a formal component of the mainstream forest management systems has not taken place.

As a result, the impact of current management systems of NTFPs on the socio-economy of the NTFP rich region such as India has generally been unharnessed. It is felt that before prescribing specific management tools to the resource managers, adaptive research must be carried out to be fully informed of the people's needs, resource endowment and best management options available.

NTFPs sub-sector in most of the countries operates in policy and institutional vacuum. They are covered by the general forest and wildlife conservation policies and legislation. Due to the distinct nature of their production to consumption/marketing system, the sub-sector will require a separate set of policies and legislation which the countries in the region currently lack. Policy actions and legal framework is also needed to protect intellectual property rights (IPRs), indigenous knowledge, and genetic resources in the framework of various international covenants.

IDRC's research program in NTFPs especially MAPs is aimed at achieving tangible improvement in livelihoods of poor and indigenous community; documentation and revitalization of traditional knowledge and ensuring better income to the collectors and growers from the commercialization process. Rather than approaching management of MAPs from a purely resource-based or purely product-based perspective, our program aims to understand the entire production-to-consumption system by targeting research on complex web of issues and mosaic of constraints and opportunities. The research program actively links stakeholders in local communities, traditional health care, research institutions, and the private sector in a network format and facilitates shared action and responsibility.

The Centre plans to implement a more comprehensive research portfolio in MAPs aimed at the development and testing of novel methodologies and technologies for in-situ, inter-situ and ex-situ conservation, improved cultivation, market analysis, community education and participation, scientific evaluation, and quality control and sustainable management.

Dr. Karki is the Regional Program Coordinator, IDRC/SARO, New Delhi.

**Incorporating NTFPs in a
FUG Operational Plan:
The Experience of
Binayak Pimidanda Forest
User Group, Bajhang**

- Ram Prasad Acharya



Though NTFPs are important resources for subsistence as well as cash generating purposes, most of the Forest User Groups (FUGs) in Nepal have not incorporated these valuable resources into their operational plans. This article briefly outlines the experiences gained while facilitating the incorporation of NTFPs in the Binayak Pimidanda FUG, which was in the process of developing a Lokta paper making enterprise.

The Binayak Pimidanda FUG was given 25 hectares of community forest. This amount of land was too small to fulfil the community requirements, so the communities expanded their community forest area with the large resource base they were using in a traditional subsistence manner. This expansion necessitated an improved management plan. The community prepared a participatory resource map showing forests and its real users. Community members helped demarcate the forest boundary on a topographical sheet. The boundary was verified with a compass and tape. 912 hectares of forest were surveyed and divided into seven management blocks based on the existing natural boundaries and forest types.

Using a stratified random sampling method, the group completed a participatory inventory of the forest tree species and NTFPs in the forest. Twenty-four strata were made based on types of forest. The sampling intensity was 1% and 136 plots were observed. Twenty tree species and twenty NTFPs species were recorded during the inventory. Only seven tree species and commercially important NTFPs (such as Lokta) were inventoried in greater detail. Detailed stock of Lokta was taken according to diameter classes to

identify sustainable harvesting levels.

The three diameter classes used for Lokta inventory are: below 3 cm; 3 to 6 cm; 6 to 9 cm. Using secondary information available in contemporary literature, a sustainable yield was prescribed for ten years. Every year the FUG can obtain approximately 20,000 kg of bast that produces 7200 kg of hand made paper.

The Binayak Pimidanda Forest operational plan includes the harvesting system for many forest species used in subsistence and/or income generating activities. The plan includes a separate section on the harvesting of NTFPs. Since the communities were planning to establish a paper-making enterprise, they carefully studied the supply of Lokta in their forest and the demand of the end product in preparation for the management plan. The 5 year operational plan describes the forest management and harvesting activities. A biological and social monitoring system is also included in the plan.

The revised plan takes special consideration to ensure the sustainable supply of the Lokta bark, in addition to several other products that are used for subsistence as well as income generating purposes. The forest user group will also collect a conservation fee, which will encourage community forest management to be sustainable. The built-in monitoring system in the operational plan will guide the communities in decision making for forest product harvesting, distribution, and conservation.

Mr. Acharya is Asst. Community Forest Officer at ANSAB.

Market and Enterprise Development

Hand-Made Paper Making Enterprise in Bajhang: Creating Direct Economic Incentives for Sustainable Resource Management

- Surya B. Binayee



Photo : R. P. Acharya

Lokta in it's natural habitat

as stockholders. The Kailash Village Development Committee established the enterprise. With the capitalization of Rs 1,000,000, this enterprise aims to earn around Rs 600,000 for its owners, around Rs 650,000 for Lokta collectors, and around Rs 100,000 for fuel wood collectors every year. The enterprise employs 12 people in its operational activities during the initial year, contributing about Rs 350,000 to the local employees. The enterprise also provides FUGs with around Rs 80,000 as a conservation premium of collected NTFPs.

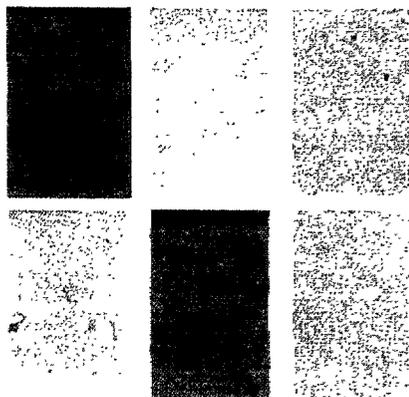
This community-based enterprise development project has three components: enterprise development, resource management, and social/institutional development. The raw material suppliers manage around 2,400 hectares of national forest as community forest under the revised management plan. The collectors have been organized as a FUG to undertake the necessary activities in well-defined ways.



Photo : S.B. Binayee

Making hand made paper at Bajhang

Part of the enterprise profit will be invested in natural resource conservation and social development activities. The rest of the profit will be distributed to the households or invested in enterprise development activities.



Samples of handmade paper

The project has completed two years of work preparing community forest management operational plans and establishing the paper making enterprise. The communities have already started an appropriate harvesting system for forest products, which is described in their operation plans. The enterprise will be operated and managed according to the enterprise development plan prepared by the community with the help of ANSAB. The enterprise has already started trial production and has established strategic alliances to market its products. The forest user group and the enterprise development committee are working closely to implement the project.

The paper enterprise and community forest user groups are expected to emerge as viable institutions for the sustainable management of natural resources, benefiting local people. This enterprise development model has been a successful income generator for the collectors, while managing their natural resources in a sustainable way. This model can be replicated in other rural mountain areas.

Mr. Binayee is Enterprise Development Officer at ANSAB

Assessment of Community-Based and Small Scale Enterprise Initiatives in Forest Resources Promotion in Nepal

- Bhisma P. Subedi, Kenneth Nicholson, Hemant R Ojha and Surya B. Binayee

ANSAB and SNV are assessing community based and small-scale enterprise initiatives in Nepal. This will evaluate current initiatives in community-based and small-scale enterprises in forest resources promotion. In particular, the study will review initiatives concerning the promotion of timber (and related wood products), fuelwood, fodder, NTFPs, and MAPs in Nepal. This will include reviewing and documenting the enabling and constraining factors of forestry enterprises. The study is primarily intended to aid new programs that aim to address poverty through the promotion of forest products. The study will get a broad idea of how the information from selected enterprise case studies fits into the larger picture of forest resource promotion in Nepal. Based on the information and knowledge created, the final part of the study will suggest possible strategies for new programs focusing on enterprise development.



Carrying bamboo products to the centre market

Photo : H. R. Ojha

The inquiry method used a case study approach and qualitative analysis. The study began identifying the various types and modalities, rather than extensively surveying community-based and small-scale enterprises. Twelve enterprise cases have been selected across various ownership structure (sole, FUGs, Co-ops, corporate), east-west axis of the country, elevation zones (Terai, middle hills, highhills), product lines (timber, lokta/paper, trading of MAPs and NTFPs, essential oils, amriso, allo, etc) and sources of raw materials (private, common property, national forest). Of these cases, six enterprises were selected for foundation case studies, which offer in depth treatise on enterprise dynamics and consequences. These cases bring additional perspectives and issues to provide a comprehensive framework for analysis and recommendation. A cross-case comparison is expected to result in lessons that are applicable to a variety of situations.



People interested to know how a village women in Baglung prepares Jhyau (Lichen) ready for sale

Photo : H. R. Ojha

Preliminary study findings show that the market is the leading factor in forest resource promotion. Enterprises have been successful where marketing information, channels, infrastructures or institutions exist. The second important factor that triggers enterprise initiatives is training

support on technical/institutional issues, start-up capital, monitoring and follow-up from projects and NGOs. The FUGs, particularly in the Terai and the high altitude regions of the country, have tremendous economic potential that could be realized if appropriate support services are provided. The community based small-scale enterprises, owned either communally or individually, have demonstrated potential to create economic opportunities by mobilizing human and natural resources.

The regulatory environment is ambiguous and restrictive with respect to developing and marketing forest products through a planned enterprise. The regulatory environment has discouraged enterprise initiatives in the sector. The DOF, as chief regulatory authority of the forest, is generally not equipped for supporting the marketing of forest products through community based enterprises. The technical support to entrepreneurs in resource management and product development is still limited. The study expects to suggest strategies for providing extension support for furthering forest based economic opportunities.

Mr. Ojha is Natural Resource Management Officer at ANSAB.
Mr. Nicholson is NTFP Development Specialist at SNV

NTFPs, Economic Incentives and Sustainable Management: An Initiative by Janaki-FUG

- Saroj Shrestha

The Janaki FUG of Ashigram Village Development Committee (VDC) in the Dadeldhura district of far western region of Nepal manages a community forest that covers 318 hectares pure block of *Pinus rosburghii* as well as mixed stands of *Rhododendron*, *Quercus*, *Myrica* and their associates. The forest was handed over to the FUG of 77 households in 1997. Brahmins and Kshatriyas households dominate the FUG. Only 10% of the FUG are lower caste households. Despite poor economic conditions, most of the people are literate.

NTFPs like Sungandhawal, Pakhanbed, Bojho, Timur and Jhyau are available in the forest. The shady and moist habitat available in the forest is suitable for these NTFPs. Jhyau is the most abundant of all the NTFPs found in this community forest.

The FUG leaders participated in NTFP related workshops, study tours and meetings organized by CBED, FECOFUN, and NARMSAP. These activities encouraged the FUG to initiate an NTFP business.

In the past the operational plan of the Janaki FUG was focused on management and utilization of timber forest products. When the community members learned the benefits of NTFP management and trade, the operational plan was amended to introduce collection and trading of NTFPs from the community forest. The FUG committee worked as a local trader for the users/collectors. The committee cleaned, dried

and graded the products to get better prices from the Nepalgunj traders.

At the beginning, the FUG had only Rs. 3,950 in their fund, which was not enough to trade the NTFPs. This was a money crisis during the initiation of risky NTFP trade. But the local leaders managed funds from



Carrying NTFPs at the Nepalgunj Airport

loans (Rs. 21,500) to purchase the collected NTFPs. Also, Nepalgunj traders provided an advance (Rs. 11,000). Hence, the FUG invested Rs. 36,450 in purchasing the collected NTFPs from the collectors. They had to spend an additional Rs. 6,262 for packaging and transportation from Ghatgaddi to the roadhead. CBED helped the Janaki FUG by buying Rs. 2,000 worth of *Kanta*.

In 1998, 2,156 kg of Jhyau, Sugandwal, Pakhanbed and Bojho were sold at twice the price they were bought from collectors. The committee earned Rs. 104,182 from the trade. Encouraged with the previous deal, they invested Rs. 42,712, gaining a net profit of Rs. 61,470. The profit was deposited in the Bank of Dadeldhura. Both the individual collectors as well as the FUG benefited.

Through NTFP trade, collectors increasingly realize the value of resource conservation. FUGs have banned branch cutting while collecting Jhyau from the trees. Likewise, collectors who protect natural regeneration while collecting NTFPs are rewarded.

In order to manage the forest, FUG has divided the whole forest into five blocks. The operational plan leaves one block free from NTFP collection each year to allow the regeneration of the NTFP. These are examples of the FUG's adequate attention to the issue of sustainability in collection and trading of NTFPs.

NTFP trading last year created a positive impact for the users of the Janaki FUG. Today it is known that cash income can be earned within a short period, and employment can be at your doorstep. Income from collecting and selling the products supported collectors' basic household expenses (locally called *noon-tel kharcha*).

Unity among the users has increased and a considerable amount of money (about Rs. 62,000) has been deposited in the Bank account. Committee members are encouraged by last year's endeavor. They have a long-term plan to join a grain processing mill in their village with the communal funds. This will reduce the women's workload. They also plan to cultivate NTFPs like sugandhawal, Bojho and other medicinal and aromatic plants (MAPs).

Mr. Shrestha is Forest Officer of DEPROSC, Nepal (CBED Project)

Photo: B. P. Subedi

Local Level Processing of MAPs: an Approach to Community Based Natural Resource Management in Nepal

- Pradip Maharjan

Herbs Production and Processing Co. Ltd (HPPCL), a parastatal under the Ministry of Forest & Soil Conservation, works with a vision of equitable commercialization and industrial development in the medicinal and aromatic plants (MAPs) sector. HPPCL concentrates on the local participation in sustainable collection, cultivation, production, processing and marketing of MAPs. HPPCL provides assistance in production, processing and marketing the farmers' products.

Local communities manage MAPs and other resources. Both good and bad management results from the interaction between local people and resources. Currently, the main priority is on financial benefits to meet the subsistence need of the local people. Conserving resources for sustainability is secondary. Hence, the situation presents a challenge in establishing harmony between the growing needs of the people and long term resource sustainability.

In this context HPPCL has introduced the local level processing of *Gaultheria fragrantissima* (Wintergreen), *Nardostachys jatamansi* (Spikenard) and *Rhododendron anthopogan* species in the Dolakha and Ramechaap districts. Presently twenty small distillation units, locally run, are producing essential oils from the local raw materials with co-operation from HPPCL in marketing and technical

assistance. This activity has generated awareness on the value of the local resources, particularly through increased benefits from essential oils sales instead of raw materials. The value chain includes collection and sale of *Gultheria* by primary collectors to the processing units, which produce oils that are sold to the HPPCL. In the process, collectors get Rs 1/Kg for leaves sold, while the processing unit gets Rs 650/Kg of oil sold.

An analysis of the value chain reveals that an average of 40% value addition at every level of trade can be achieved. The current oil activity is yielding about NRs. 75,000 per annum for the collectors from one unit of 1000 liters' distillation capacity. At the district level, 20 distillation units pay (20x75000) NRs. 1,500,000 to the local collectors per annum. Similarly, the processors get (NRs. 200 per batch x 300 batches per year x 20 units) NRs. 1,200,000 per annum. Total outlay from the resources at the district level per annum is 2,700,000.

Wintergreen leaves were used as cow shade and bed before the introduction of this activity. Now, wintergreen is paying substantial incomes for the rural poor of the district. As a result, people have started conserving the Wintergreen by adopting rotational harvesting practices.

Mr Maharjan is Senior Officer at HPPCL.

NTFP Sub-Sector Study

- Janie Bergeron

NTFPs are a key source of revenue for some of the poorest people in Nepal. In Karnali, they are the most important commodities exported out of the zone and the second most important source of cash after wages from seasonal labour. In July 1999, with the assistance from NARMSAP and CIDA, the Community-Based Economic Development (CBED) project and ANSAB completed a study that focuses on the increasing stakeholders' knowledge on NTFPs in the Karnali zone; emphasises the importance of marketing aspects; and identifies leveraged interventions. ANSAB conducted the field research and wrote the draft report. The underlying purpose of the study was to strengthen the overall marketing capacity of NTFP harvesters, FUGs and local traders of the Karnali zone. While the study focuses on the Karnali zone, the main findings are applicable to the entire Mid-Western Region.

The identified opportunities for leveraged intervention were assigned high, medium and low feasibility ratings.

The opportunities deemed highly feasible are:

- ⇒ improving the supply of NTFPs through management and sustainable harvesting, including the hand over of NTFP areas to FUGs;
- ⇒ increasing FUG legal awareness and capacity;
- ⇒ improving market information systems.

The revision of NTFP related national policy was rated as having a medium level of feasibility. The study also showed that Nepalganj traders make the highest profits from *Jatamansi* and *Sugandhawal* roots, which are banned for export in unprocessed form. Moreover, the production of *Jatamansi* and *Sugandhawal* essential oils by local processors was considered to have low feasibility prospects because they make a very limited profit from the sale of essential oil.

Ms. Bergeron is Forestry Advisor of CECI/CBED.

The BIOTRADE Initiative: An Integrated Approach Towards Trade, Biodiversity Conservation and Sustainable Development.

- Salvano Briceno

Many developing countries are endowed with highly rich and diverse biological resources. These resources provide a wide range of products and services, such as watershed protection, carbon sequestration, eco-tourism, products derived from bioprospecting, intermediate products (e. g. natural dyes, colorants, oils, biochemical compounds, medicinal extracts) and final products (e.g. timber, handicrafts, nuts, fruits, perfumes, medicines). Many products are collected for subsistence use. Some products have served as an important source of innovation for the pharmaceutical, biotechnology, cosmetic or agrochemical industries.

Countries rich in natural resources and biodiversity are witnessing high deforestation rates and loss of biodiversity. Impoverished populations searching for short-term economic gain tends to cause environmentally harmful behavior. Well-known examples of such behavior are unsustainable slash-and-burn practices, excessive commercial logging, and clearing of natural habitats for agriculture and urban expansion.

To reverse the above process, biodiversity should be used sustainably in development practices. Potential economic value for biodiversity should translate into economic benefits. One way to achieve this is by taking advantage of the new investment and trade opportunities emerging for biodiversity-based products and services. Interest for these products is on the rise because of the industry search for recyclable products, the

globally emerging biotechnology industry, and shifts in consumer behavior in industrialized countries and urban areas of developing countries.

If developing countries are able to seize these opportunities, biodiversity could be an engine for growth and sustainable development. In most instances, lack of technical and entrepreneurial capacity and absence of clear legal and policy framework result in low value added products and services. Low value products only marginally benefit the country, biodiversity and its stakeholders. Without an appropriate framework of innovative mechanisms and economic incentives, the agenda for conservation and sustainable use is difficult.

In light of this challenge, UNCTAD launched the BIOTRADE Initiative at the third Conference of the Parties of the Convention on Biological Diversity (CBD) in November 1996. The mission of BIOTRADE is to stimulate trade and investment in biological resources to further sustainable development, in line with the three objectives of the CBD: a) conservation of biological diversity; b) sustainable use of its components; and c) fair and equitable sharing of the benefits from using genetic resources.

The BIOTRADE Initiative seeks to enhance the capability of developing countries to produce value-added products and services from biodiversity for both domestic and international markets. It is an

integrated program consisting of three complementary components: the BIOTRADE country programs; market research and policy analysis; and Internet services: (www.BIOTRADE.org)

The BIOTRADE country programs are the most comprehensive part of the Initiative. They identify opportunities and constraints for sustainable resource development in each country, focusing on bio-business development, bio-partnerships, sustainable use, conservation, and benefit-sharing incentives.

The BIOTRADE Initiative aspires to fully integrate the private sector, government agencies, local and indigenous communities, and other relevant players in a mutually beneficial framework. It develops concrete partnerships with governments, the private sector, international organizations and NGOs.

A three-day meeting on 'Bio-Partnerships for Sustainable Development: Commercialization and the Bio-industry Challenge' offered information on new legal and policy developments affecting the field. Also addressed were information on emerging technologies that are opening new markets for biotechnology-derived products; innovative research and development; marketing partnerships; and strategies for promoting bioresource industries.

Mr. Briceno is Interim Coordinator of Biotrade, UNCTAD/DITC in Switzerland.

WORKSHOPS, MEETINGS AND TRAININGS

NTFP Planning Workshop

In October 1999, CBED and the Ministry of Forest and Soil Conservation organized the "NTFP Planning Workshop" in Nepalganj to examine the recommendations of this study and put them into action. The workshop's main goal was to develop plans for NTFP promotion in HMG/N district and regional plans. The workshop involved a range of organizations promoting NTFPs in Mid-Western Nepal, including nine DFOs, the Regional Director of Forestry for the Mid-Western Region, local NTFP harvesters, FUGs and key government and non-government stakeholders. The workshop produced practical results to strengthen NTFP promotion in Nepal. First, workshop participants drafted district and regional programs for NTFP promotion in Mid-Western Nepal. A *Model District Plan for NTFP Development and Guidelines for Integrating NTFPs in FUG Operational Plans* are also available in the report. Second, the workshop created an awareness of the NTFPs sub-sector study findings (contributed by Janie Bergeron).

National Training Workshop on Enterprise Development Planning in NTFPs Sector

A national training workshop on 'Enterprise Development Planning in NTFPs Sector' was organized by ANSAB, September 22-24, 1999 in Kathmandu. The workshop was designed to enhance the capacity of Nepalese institutions to render business development services to micro and small-scale entrepreneurs in the natural products sector. The main purpose of the workshop was to provide an opportunity for the participants to share, discuss and learn the basic concepts, processes and techniques of micro-enterprise development in the forest/natural products sector within the prevailing social, ecological and technological context.

In attendance were 32 representatives from NGOs, the ministry of forests and soil conservation bi/multi-lateral projects, FUGs and FECOFUN, DDCs, and NTFP entrepreneurs from around the country. The participants were exposed to various tools for business opportunity analysis. Overall, the workshop focused on the general topic of enterprise in the sector instead of in-depth discourse on specific NTFPs and details on processes and tools. The workshop also strengthened informal networks of non-professionals and professionals interested in NTFPs. By the end of the workshop, the participants had completed action plans.

A similar workshop was also held in March 27-31, 2000 at Budol Training Center, Kavre district (interested persons may contact ANSAB office).

RECOFTC Training in Laos

An international training course on Small-scale Tree and Forest Product Enterprise Development will be held in Lao PDR from 24 May – 8 June 2000. The course is organized by the Regional Community Forestry Training Center (RECOFTC) in collaboration with the Forest Department of Lao PDR. The course contents are primarily based on Market Analysis and Development Methodology (MA&D). MA&D is designed to assist tree and forest product entrepreneurs take advantage of emerging marketing opportunities in the context of economic liberalization and governmental decentralization. This course provides middle management professionals with the skills necessary to facilitate the planning and development of small-scale forest enterprises. (Excerpts from the training brochure)

SEANN Workshop

South and East Asian Countries Network (SEANN) was established in January 1995 in response to the growing importance of Non-timber Forest Products (NTFPs) in rural livelihoods and biodiversity conservation over the last two decades. The Institute of Forestry (IOF), Pokhara, Nepal organized the third SEANN workshop from April 8-9, 2000 in collaboration with three NTFP related organizations in Nepal, and an India based NGO. The goal of the workshop was to enhance the knowledge, skills and commitment of the regional NTFP community through sharing of and reflections on experiences. Specifically, the workshop reviewed the current initiatives in community based NTFP harvesting, management and marketing and identified the gaps and issues that require research and structured experiences. (Excerpts from the training brochure)

PLANT PROFILE

KUTKI

Picrorhiza scrophulariiflora

-Bhishma P. Subedi

Kutki, one of the major income generating non-timber forest products of Nepal, is found in the alpine Himalaya. It is known as one of the oldest medicinal plants traded from the Karnali zone. It is collected from the government controlled alpine pasture and community managed land. Kutki is sold to village traders who airlift it to Nepalganj for sale. Kutki is a perennial herb and is used as a substitute for Indian gentian (*Gentiana kurroa*). The rootstock and stem of Kutki are useful with high medicinal value.

1. BIOLOGY

A. Taxonomy

Picrorhiza scrophulariiflora Pennell is the only species of this genus found in Nepal (Hara et al, 1982). The synonym of this species is *Picrorhiza kurroa* Hook. f. in part non-Royal ex Beth.

Family - Scrophulariaceae
Local name - Kutki, Katuki, Katuko
English Name - Gentian

Kutki is easily distinguished by its elongate, stout creeping rootstock associated with a withered leaf base. The skin of the rootstock is thick, wrinkled and prominently striated. The rhizome is evanescent inside, hence it can be easily compressed. Leaves are radical, spatulate and sharply serrated. The flower of this taxon is white or pale blue-purple in dense terminal spicate raceme. Fruits are borne in ovoid capsules.

B. Ecology

Distribution and Habitat

Kutki is a perennial herb found in the Himalayan region (Garhwal to Bhutan), Southeast Tibet, North Burma and West China. It grows naturally in alpine regions on rock scars as well as in organic



Kutki in Nature

soils. In Nepal, Kutki is distributed abundantly in alpine Himalaya between 3500m to 4800m altitudes. It found in the eastern and central regions of Nepal, but most abundantly in the western region where it grows on the rock's crevices on the north facing slopes, cliffs and the turf of glacial flats.

Kutki prefers a moist habitat and sandy loam soil. Flowering occurs during June-August and fruiting occurs from September onwards. At the beginning of October, the plant turns yellowish and becomes ready for perenniation. After December, it remains under snow and at the beginning of summer when the snow melts, the plant regenerates from the dormant part.

The main associated plant species of Kutki are Bhedakhaja (*Anemone tetrasepala*), Bukephool (*Anaphalis* sp), Bhojpatra (*Betula utilis*), Dhupi (*Juniperus indica*), Dhupjari or Kalthaple (*Jurinea dolomiaea*), Jatamansi (*Nardotachys grandiflora*), Ratoghans (*Geum elatum*), Sunpati (*Rhododendron anthopogon*), Bikhama (*Aconitum bisma*), Panchaunle (*Dactylorhiza hatagirea*), Padamchal (*Rheum australe*), *Potentilla* sp., and Kukuwa (*Bistora macrophylla*). Mosses and lichens are also found in the Kutki growing habitat.



Photo : B. P. Subedi

Drawing by : FRIS Project Paper No.8/HMGN FINNIDA

Regeneration

The natural regeneration takes place by seeds and rhizomes. Kutki has lower regeneration potential compared to Jatamansi. The regeneration of this species is better in the shady and moist areas instead of open areas. The plant may be cultivated at higher altitudes in the Himalayas by both seeds and rhizome cuttings (Edwards 1996, MFSC/HMG 1987 and Chopra 1934). Rhizome cultivation is considered faster than seed cultivation. The plant easily regenerates from the underground propagules left during harvesting.

2. UTILIZATION

A. Subsistence

Local traditional healers use Kutki for different medicinal purposes. The root is bitter in taste. It has a cooling effect and is used as a cardiogenic, antipyretic, anthelmintic and laxative. It is also used to alleviate stomachache, and is believed to promote appetite. Kutki is useful in 'Kapha', bilious fever, urinary discharge, hiccup, blood troubles, burning sensations, leucoderma, and jaundice. Locally, two varieties of *Picrorhiza* are distinguished:

- a) White- root has a very sharp bitter taste
- b) Black- root is less bitter and purgative expectorant

B. Commercial

Kutki is in high demand in both national and international markets for its valuable rootstocks. The dried rhizomes and roots of the plant consist of bitter principles, mainly a glucoside named picrorhizin (CSIR, 1950). This is also used as an adulterant, or as a substitute for, Indian gentian

(*Gentiana kurroo*). Alcoholic extracts of the roots are active against *Micrococcus pyogenes* var. *aureus* and *Escheria coli*.

3. RESOURCE MANAGEMENT

A. Management system

In Nepal, Kutki is found in government-controlled national forests including some national parks and conservation areas, as well as FUG managed forests. It has long been collected from the government forests in the high mountains of Western Nepal. The species is threatened by premature and bulk collection without consideration for future regeneration. One of the major hazards for the growth and regeneration of this species is intentional fires set by local shepherds.

Resource management in Humla has changed since ANSAB facilitated the formation of FUGs under the BCN funded Humla Project. These FUGs have taken the responsibility for managing their community forests. The project also facilitated FUGs to adopt the rotational harvesting method for regeneration management of this species. Most FUGs have stopped uncontrolled fire practices in order to facilitate Kutki regeneration.

B. Harvesting

The appropriate harvesting season of Kutki is October through December. However, some local people start collection of Kutki in May and continue collection through December. The whole plant is pulled out of the ground manually. Men are the primary collectors of this plant. The mature plant with a long

rhizome is easier to harvest. After the implementation of the BCN funded Humla project, some FUGs began to regulate the harvesting season and methods.

C. Sustainability Issues

The early collection of Kutki before October threatens the sustainability of this species, as the Kutki fruits mature after September. Because of untimely and wrong collection methods, availability of this species has been decreasing every year in government controlled forests. The increased distance to collection sites indicates this change. The species was threatened to extinction as a result of over-harvesting and improper post handling techniques. Some FUGs in Humla have adopted rotational harvesting systems. In some cases, FUGs have stopped collecting Kutki from their community forests for some years.

The species is threatened to extinction because of over-harvesting without any management system and domestication in place. With the establishment of a proper management system (both social and biological), development technology for processing (value-adding), and proper marketing strategies, the species can be conserved. In the long run, this will support resource-dependent local communities.

RECENT PUBLICATIONS AND REPORTS

Nepal-Swiss Community Forestry Project/Swiss Development Cooperation (NSCFP/SDC)

- Ganga Ram Dahal (May 1999)
- *Implementation of The Community Forestry Programme in the Mid Hills of Nepal*
- Manohara Khadka (May 1999) *What Makes a Woman Leader ?*

Canadian Centre for International Studies and Cooperation (CECI-Nepal)

- CBED (1999) *Subsector Analysis of High Altitude Non-Timber Forest Products in the Karnali Zone*. The Canadian Centre for International Studies and Cooperation, Kathmandu.
- CBED (1999) *Non-Timber Forest Product Planning and Implementation Workshop Report*. The Canadian Center for International Studies and Cooperation, Kathmandu.
- S.Regmi, J. Bergeron and N. Maclsaac (1999) *Opportunities for Leveraged Interventions in High Altitude Non-Timber Forest Products in the Karnali Zone, Nepal*. Bio-Reform Workshop Proceedings, Kathmandu.

IUCN-The World Conservation Union

- *Environmental Economics in IUCN Nepal: Activities, Proceedings and Selected Papers*. Edited by Ambika Prasad Adhikari, Bishwamber

Pyakuryal and Jaklien Vlasblom. 99 pages. NRs. 150

- *The Economic Value of the Environment: Cases From South Asia*. Edited by Joy E. Hecht. 73 pages. NRs. 150
- *Nepal Country Report on Biological Diversity*. By Tirtha B. Shrestha. 133 pages. NRs. 500
- *National Implementation of the Convention on Biological Diversity: Policy and Legislative Requirements*. By Narayan Belbase. 120 Pages. NRs. 150
- *Collaborative Management of Protected Areas in the Asian Region: Proceedings of the Workshop on Collaborative Management of Protected Areas in the Asian Region*. Edited by Krishna Prasad Oil. 284 pages. NRs. 350

Netherlands Development Organization (SNV/Nepal)

- *SNV Nepal and Non Timber Forest Product Enterprise Development*, Kenneth Nicholson, (WIPS-1-99) (NRs. 300)
- *SNV Nepal and Sustainable Tourism Development Background Document*, John Hummel (WIPS-2-99) (NRs. 300)
- *Can Orange Trees Blossom on a Barren Land, Praja Community Development Programme (PCDP) (English/Nepali) (NRs. 200)*

Himalaya Bioresources is open to contributions by the network members and readers. Contributions may be edited to fit into the focus and size of the newsletter. If you have any material that could be included in the next issue of Himalayan Bioresources, kindly send it, before August 31, 2000 to:

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