

Indigenous Peoples, Forests & REDD Plus

Sustaining & Enhancing Forests Through Traditional Resource Management

VOLUME 2

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Volume 2

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Acronyms

AFP	Armed Forces of the Philippines
AGEPO	Action de gestion durable des forêts
AIDESEP	Asociación Interétnica de Desarrollo de la Selva Peruana
AMARCY	Asociación de Manejo de la Reserva Comunal Yánesha
ANAP	Asociación de Nacionalidades Asháninkas del Valle Pichis
ANP	Protected Natural Areas
CAR	Cordillera Administrative Region
CBD	Convention on Biological Diversity
CBS	Central Bureau of Statistics
CCPP	Climate Change Partnership Program
CECAP	Central Cordillera Agricultural Programme
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CERDA	Centre of Research and Development in Upland Areas
CF	Community Forest
CFUGs	Community Forest Users Groups
CFM	Collaborative Forest Management
CPC	Cellulose Processing Corporation
COP	Conference of Parties
CRC	Cellophil Resources Corporation
CSG	Cordillera Schools Group

DA	Department of Agriculture
DDC	District Development Committee
DFO/s	District Forest Office/s
DNPWC	Department of National Parks and Wildlife Conservation
DoF	Department of Forests
DP	District Profile
FBN	Forest Block Number
FGD	Focus Group Discussion
FECONAYA	Federación de Comunidades Nativas Yánesha
GAD	Gender and Development
GHGs	Greenhouse Gas Emissions
ICCPR	International Covenant on Civil and Political Rights
ICERD	International Convention on the Elimination of All Forms of Racial Discrimination
ICESCR	International Covenant on Economic, Social and Cultural Rights
IKS	Indigenous Knowledge System
IKSP	Indigenous Knowledge Systems and Practices
ILO	International Labor Organization
IMSS	Mexican Institute of Social Security
INEI	Instituto Nacional de Estadística e Informática
INGOs	International Non Governmental Organizations
IP	Indigenous Peoples
IRAP	Integrated Rural Accessibility Planning and Procedure
KCFUG	Khasur Community Forest User Group
LAGAT	Lacmaan, Agawa, Gueday, Ambaguiw and Tamboan
LGU	Local Government Unit

MAP	Medicinal Aromatic Plants
MoLD	Ministry of Local Development
NEFIN	Nepal Federation of Indigenous Nationalities
NFDIN	National Foundation for the Development of Indigenous Nationalities
NFI	National Forest Inventory
NGOs	Non Governmental Organizations
NORAD	Norwegian Agency for Development Cooperation
NPA	New Peoples' Army
NPWPA	National Parks and Wildlife Protection Act
NSO	National Statistics Office
NWC	National Women Commission
PA/s	Protected Area/s
PROFONANPE	Fondo de Promoción de las Áreas Naturales Protegidas
RCY	Yanesha Communal Reserve
RBOAY	Oxapampa Ashaninka Yanesha Biosphere Reserve
REDD	Reducing Emissions from Deforestation and Forest Degradation
REDD Plus	Reducing Emissions from Deforestation and Forest Degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries
R-PIN	Readiness Plan Idea Note
RPP	Readiness Preparation Proposal
SFID	Société Forestière Industrielle de la Doumé

SICNA	Sistema de Información sobre Comunidades Nativas de la Amazonía Peruana
SINANPE	National System of State-Protected Natural Areas of Peru
TFRIN	Task Force for Re-identification of Indigenous Nationalities
TPLA	Timber and Pulpwood License Agreement
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNESCO	UN Educational, Scientific and Cultural Organization
UNFCCC	UN Framework Convention on Climate Change
VDC	Village Development Committee
WAD	Women and Development
WID	Women in Development

Table of Contents

Foreword xi

Tenure Security of the Baka Pygmies: Incentivizing Participation in Forest Conservation & REDD Plus 1
By Gabriel Bachange Enchaw & Ibrahim Njobdi

The Yanesha Peoples' Forest & Natural Resource Management 73
By Chirapaq (Centro de Culturas Indigenas del Perú)

The Community of Santiago, Malacatepec & its Relationship with the Forest 135
By Neftalí Diego Aquino with the collaboration of Regino Montes, Benito Sandoval Mónico & Aureliano Matías Reyes

Revitalizing Customary Governance & Strengthening Traditional Knowledge on Natural Resource Management in Nepal 195
By Pasang Dolma Sherpa, Gelu Sherpa, Khim Ghale, Kunshang Lama, and Dr. Pasang Sherpa

Protecting the Forest: Learning from the Agawa Women of Besao, Mt. Province 267
By Wilfredo V. Alangui & Myra Christine C. Caguioa

Reclaiming Traditional Forest Management Practices: The Binh Son Village Experience 305
By Vu Thi Hien, Nguyen Thi Tuyet, Nguyen Xuan Giap, Nguyen Hong Xa, and Pham Thanh Cuong

Foreword

Many of what remains of the world's tropical forests—and Google Earth could attest to this—are found in indigenous peoples' lands. The main reason is that indigenous peoples regard their lands and forests not only as a resource for their survival but as a cultural and natural heritage. As a heritage, forests and lands must be cared for and protected for future generations as well. Some parts of these forests and whole forests, even, are regarded by them as sacred sites. This view sits well with how indigenous peoples perceive their role as stewards of everything entrusted them.

Also as noted in Volume 1 of Tebtebba's 2010 publication, *Indigenous Peoples, Forests and REDD Plus: Sustaining and Enhancing Forests Through Traditional Resource Management,* forest-dwelling and forest-dependent indigenous peoples not only regard their forests and lands as source of sustenance and livelihood. But their very identities, culture or way of life, social organizations and traditional knowledge systems also practically revolve around their forests and lands. So deeply rooted is their cultural, economic and spiritual relationship with their forestlands that they have passionately resisted attempts to displace them. Some also resisted the imposition of government programmes such as conservation or protected area programmes. These programmes ignored the reciprocal relationships between indigenous peoples and their forests, practically displacing them as a result.

This is not so with the profit-motivated initiatives. Investors and the State see with a different lens forests in indigenous territories. They regard forests in terms of board-feet or cubic-

centimeters of timber to be sold in the market. After felling the trees, they would convert deforested areas into agriculture monocrop plantations. These kinds of profit-driven land uses and land conversions, including mine sites and grazing lands, have helped plunge the whole planet into the current climate change crisis.

In the climate change negotiations (UNFCCC/UN Framework Convention on Climate Change), forests have taken center stage. Forests have been acknowledged as the fastest and cheapest way to mitigate climate change. The Intergovernmental Panel on Climate Change says that emissions for deforestation and land use change account for almost 20 percent of global greenhouse gas emissions—the main cause of climate change. Thus the need to protect and conserve the world's remaining forests to help mitigate climate change.

The international community, therefore, has an urgent task and a moral obligation to help indigenous peoples secure and recover grabbed forestlands. Most of these forestlands have been grabbed since the colonial era. This call continues to resonate as the world debates on climate change, particularly in the context of the United Nations' Reducing Emissions from Deforestation and Forest Degradation, Conservation, Sustainable Management of Forests and Enhancement of Carbon Stocks or REDD Plus.

Amid the current discourse about climate change, the voice of various indigenous peoples must be heard. As its contribution to the climate change debate, we in Tebtebba have collaborated with our partners in various parts worldwide belonging to the Indigenous Peoples' Global Partnership on Climate Change and Forests[1] on the project, "Ensuring Rights Protection, Enhancing Effective Participation of and Securing Fair Benefits for Indigenous Peoples in REDD Plus Policies and Programmes."

This project integrates research and publications; training and awareness building; advocacy at the local, national and global levels for the inclusion of indigenous peoples' perspectives and rights into UNFCCC decisions; establishing community-based monitoring, management and information

systems on how REDD Plus safeguards are being implemented on the ground; and the setting up and management of demonstration areas and livelihood projects where traditional knowledge and management systems are reinforced. Ensuring empowerment of women and gender equality are integral components of this project. This capacity building project is supported by NORAD, the Norwegian Agency for Development Cooperation and the Norwegian International Climate and Forest Initiative (NICFI).

A follow-up to the earlier batch of case studies published in 2010, this second volume of the book *Indigenous Peoples, Forests and REDD Plus: Sustaining and Enhancing Forests Through Traditional Resource Management* includes six case studies. These were written by the Center of Research and Development in Upland Areas (CERDA), Vietnam; Nepal Federation of Indigenous Nationalities (NEFIN), Nepal; Center for Indigenous Peoples' Cultures of Peru (Chirapaq), Peru; Asamblea Mixe para el Desarrollo Sostenible A.C. (ASAM-DES), Mexico; Lelewal Foundation, Cameroon; and in the Philippines, by the state-run University of the Philippines Baguio, in partnership with Tebtebba.

These six case studies reveal the secrets of indigenous peoples in protecting, conserving and managing their forestlands. The findings, conclusions and recommendations of the case studies all point to one thing—policy makers and development planners need to rethink or reorient their mindsets and framework towards forest management.

For example, governments, development planners and even some non government conservationist organizations must rethink their notion of protected areas without indigenous peoples. A good case in point was what happened to the indigenous Baka of Cameroon. The government and conservation groups attempted to establish a protected area out of what was left by massive logging by a timber company. But this protected area has become off-limits to the indigenous Baka. This was a classic case of conservation without the indigenous inhabitants. Meanwhile, the timber company continued with its business as usual and the sacred sites of the Baka were among those ruined. The indigenous Baka were practically

uprooted from their forestlands, their main source of survival.

Having maintained a harmonious and symbiotic relation with their forestlands for a long time, the indigenous Baka, the researchers suggested, should have been the ideal partners of government and conservation groups in conserving and managing their forests.

All the case studies share something in common. They highlight how indigenous peoples regard themselves as stewards and caretakers of their forests and lands. As such, they view the land as "Mother," which cannot be sold or traded. This was especially highlighted by the indigenous communities in Santiago Malacatepec in Mexico's State of Oaxaca in a case study done by ASAM-DES.

As responsible stewards, indigenous peoples also regard their forests and lands as sacred. The various studies cite specially designated sacred sites, which must remain untouched. These sites include areas with pristine springs, important herbs, centuries-old mother trees, and important wildlife sanctuary. And as part of their responsibility and accountability, indigenous peoples always consider the needs and interests of future generations. Indigenous governance, traditional knowledge and management systems of forests and lands are thus based on this precept.

All the case studies also highlight the vital role of women in forest management or in sustainable farming. During the summer season in Nepal when there is a high chance of forest fire or when they suspect an act of theft of forest resources, an indigenous women's group "proactively guards" the forest. The women guard the border area where people from other places would most likely enter the forest illegally. This group is similar to the women forest patrols of Besao, Mountain Province in northern Philippines.

In Peru, Yanesha women's accumulated knowledge in farm management and crops is so strong that they are able to recognize different kinds of land and which crops are best suited for each. This type of agricultural planning aims at securing and obtaining a diverse range of food products from the chacra or small upland farms. In Cameroon, Baka women

have developed a way to help their families survive in their resettlement sites. They spend about half of their daytime in the forest during low gathering and hunting season, while during peak gathering and hunting period, they are in the forest for months before returning to their resettlement sites.

Some case studies, however, highlighted what need to be done to help enhance indigenous women's contribution. In Vietnam, indigenous women are active in helping manage and conserve their forests but, according to the researchers, this needs to be "officially recognized." The case study from the Philippines also recommends that REDD Plus programs and projects "should not only harness the knowledge and skills of Agawa women in protecting and sustaining the forests, but to guarantee that they have the material and economic resources to enable them to do so."

Another case study points the need for better women's participation in decision making. The ASAM-DES case study cites that owing to Malacatepec custom, Mixe women's participation in the community assembly is "minimal compared to men's." Still, Mixe women are considered the best workers in the fields, compared with other indigenous groups in Oaxaca, Mexico.

The findings and recommendations of the six studies no doubt can help much in finding the right approach in implementing REDD Plus or any other forest and climate change program.

This publication is a collaborative effort between Tebtebba and our partners and the local indigenous communities and organizations that they are working with. Our thanks therefore go to our partners for their tireless efforts in coming up with these case studies. And to the Tebtebba team for making this publication a reality: Jo Ann Guillao and Grace Balawag of the Indigenous Peoples and Climate Change Adaptation and Mitigation Programme; and to the Publications team, Raymond de Chavez, Paul Michael Nera, Maurice Malanes and Marly Cariño.

Finally, I would like to express my gratitude to our funders. To NORAD/NICFI who continues to fund our work

in building and enhancing indigenous peoples' capacities so that they are able to claim their rights, secure fair benefits and be effective key actors in climate change and REDD Plus in their countries as well as in the global arena. To Brot fur die Welt/EED of Germany, whose consistent support enables us to make our work a reality. We also thank Tamalpais Trust and the Climate Land Use Alliance (CLUA, through ClimateWorks) for their additional support to our work in this area and in operationalizing our integrated and holistic framework on Indigenous Peoples' Sustainable, Self-Determined Development (IPSSDD).

Victoria Tauli-Corpuz
Executive Director
Tebtebba

Endnote

[1] The partners are AMAN (Aliansi Masyarakat Adat Nusantara), CADPI (Centro para la Autonomia y Desarollo de los Pueblos Indigenas), CERDA (Center of Research and Development in the Upland Area), CHIRAPAQ (Centro de Culturas Indigenas el Peru), CIR (Conselho Indigena de Roraima), ID (Institut Dayakology), ILEPA (Indigenous Livelihoods Enhancement Partners), Lelewal Foundation, MPIDO (Mainyoito Pastoralists Integrated Development Organization), MRDC (Montanosa Resource and Development Center) (should we still include MRDC, when we do not work with them anymore?) Maybe put the local community organization in Tinoc,instead, NEFIN (Nepal Federation of Indigenous Nationalities), SER-Mixe/ASAM-DES (Servicios del Pueblo Mixe and the Asamblea Mixe para el Desarollo Sostenible), SILDAP (Silingang Dapit sa Habagatang Sidlakang Mindanao), and UEFA/DIPY (Union pour l'Emancipation de la Femme Autochtone / Dignite Pygmee).



1

Tenure Security of the Baka Pygmies: Incentivizing Participation in Forest Conservation & REDD Plus

By
Gabriel Bachange Enchaw
& Ibrahim Njobdi

Introduction

Sustainable development in Africa in general, and Cameroon in particular, will seldom be achieved without securing land and resource rights of indigenous peoples, local communities and women in law, and their realization in practice, through concerted efforts at all levels of society (PAPLRR-West 2002). In the same vein, it is dawning upon contemporary researchers that REDD Plus[1] policies and programs will be a farce without adequate tenure incentives to indigenous peoples. REDD Plus policies and programs will obviously lead to reforms that do not depart from the usual approach. Ngwasiri (2001), focusing on the 1994 Forestry and Wildlife Law, was categorical that so far in Cameroon, each time state bureaucrats were called upon to effect land tenure reform, they thought of nothing better than leaning over backwards and lifting from past European texts, which did not have much in common with the problem that reforms were supposed to address at a given time. Such reforms keep multiplying without the contribution of indigenous peoples and women.

In Cameroon, the classification of forests into permanent and non-permanent forest domains in the 1994 Forestry and Wildlife Law and its Decree of application has led to the imposition of boundaries to local populations with the result that access to resources is denied them. Corroborating this view, Besong et al. (1995) and Grazia et al. (2000) argued that the imposition of a boundary on the people living in and around Kilum-Ijim Forest Project area, and the seizure of 2,000 hectares of land that had been cleared for arable farming constitutes conservation strategies and action plans that are eco-center-oriented and lead to conflicts.

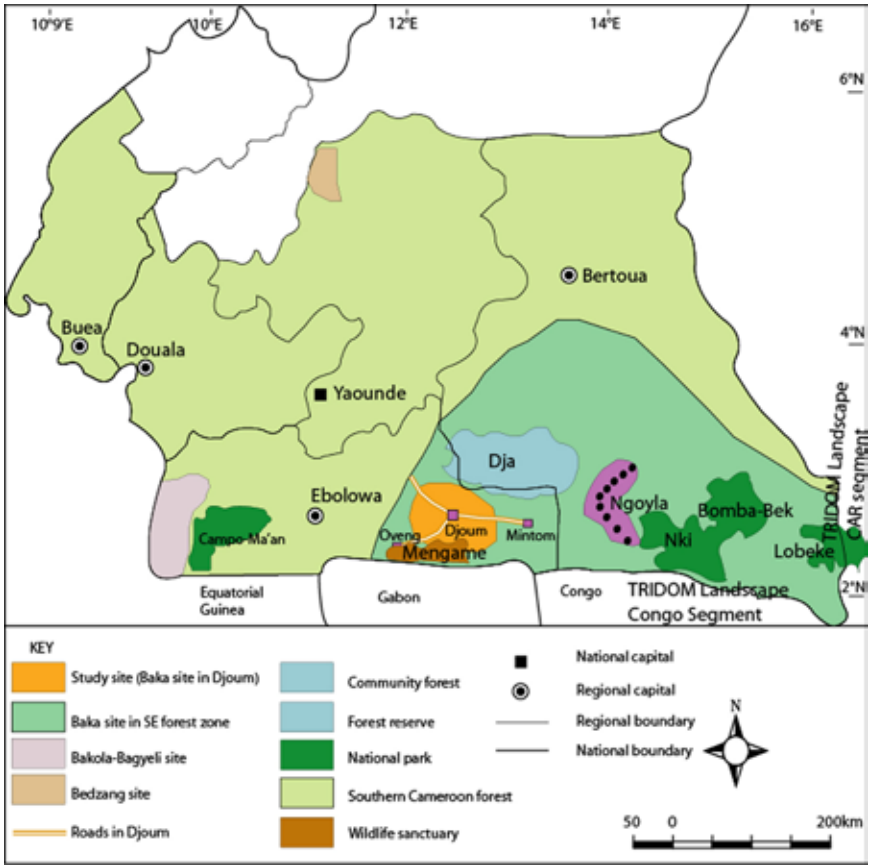
Most of these conflicts were observed to be the result of suboptimal legal provisions. Enchaw (2009) opined that legal provisions as proscribed by the 1994 Forestry and Wildlife Law and its associated legal instruments are viable sources of conflicts in the domain of forest ownership and management in Cameroon. Lacunas and conflicting legal provisions in the 1994 Forestry and Wildlife Law and its Decree of application have created avenues for both vertical and horizontal conflicts as well as abuses, all of which dissuade indigenous peoples and women from participating in proposed forest conservation programs, the author stressed.

Chambers (1983) stressed that when local communities that dwell in and around forest locations are alienated from the management regime, such forest land falls into "open access" and, consequently, suffers the fate of the "tragedy of the commons." Bromley and Cernea (1989) argued that although this situation has been referred to as the tragedy of the commons, it is actually the tragedy of open access, which originates from the dissolution of local level institutional arrangements.

Location of the Study Area and Sites

The study area is the southeastern forest zone of Cameroon where Baka Pygmies, who constitute a majority of forest indigenous peoples in the country, are found. The study sites, selected among the Baka in the southwestern part of this study area (Figure 1) make up the case study. Historically, Pygmies are presented as the first settlers of the Congo Basin and it has been observed that through horizontal expansion they are currently living in parts of the East, Center, and South Regions of Cameroon. These indigenous peoples are made up of mainly the Bakas, Bakolas, Bagyélis and the Bedzangs.

Figure 1. Location of study site in the southeast forest zone of Cameroon



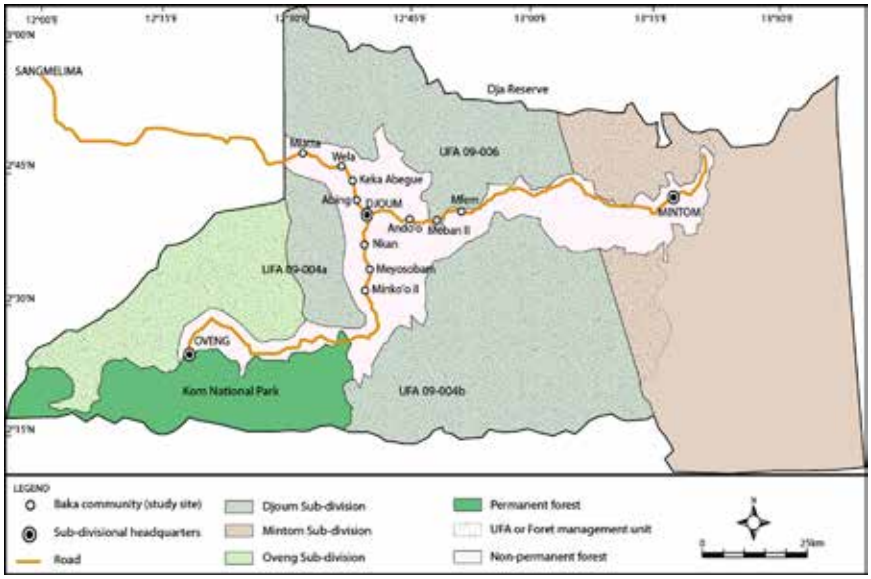
Source: Computed from Abega (1998); Nguiffo, Kenfack and Mballa (2009) and field work 2011.

Although no exact data are available, the total population of Pygmies in Cameroon is about 0.4 percent of the 19 million population, half of which has been estimated to be the Baka (Abega 1998 and Tchoumba 2005). The Baka live essentially in the East and South Regions of Cameroon whereas the Bakola and Bagyéli are spread over a surface area of about 12,000 km² in the South Region of Cameroon, precisely in Akom II Sub-division, Bipindi, Kribi and Lolodorf. Finally, the Bedzangs live in the Center Region, in the northwest part of Mbam in Ngambè Tikar area (Nguiffo, Kenfack and Mballa 2009).

The case study for this research are the Baka Pygmies who are the most populated group of indigenous peoples in the southeast forest zone of Cameroon. The study sites are selected Baka communities that have been subsumed under Bantu villages along three main road axes in Djoum Sub-division. The road axes radiate from Djoum, and include the Sangmelima-Djoum axis, Djoum-Mintom axis and Djoum-Oveng axis. Djoum, Mintom and Oveng are three sub-divisions that are collectively known as Grand Djoum.

The selected Baka communities in each axis are considered a cluster for study, implying that there are three clusters. The clusters are located approximately between longitudes 12° and 12°25'E and between latitudes 2° and 2°25'N. The communities in each cluster include Abing, Keka Abegue of Djouze, Miatta and Wela of Melen Bulu in the Sangmelima-Djoum axis; Ando'o, Meban II of Meban and Mfem II of Mfem in the Djoum-Mintom axis; and Nkan, Meyosobam and Minko'o II of Minko'o in the Djoum-Oveng axis (Figure 2).

Figure 2. Location of Baka communities in Djoum Sub-division, southeast forest zone



Source: Adapted from WWF (2010), the Dja et Lobo Village Dictionary, the 1:50000 topographic map of Djoum and field work 2011.

These study sites have been chosen because of the need to:

- Facilitate and enhance inter-community dialogue between Baka indigenous peoples and local Bantu communities;
- Create awareness for the respect of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) during a state-organized eviction of Baka from their ancestral lands in order to make way for protected areas;
- Acquire pertinent information particularly as the Cameroonian-born Divisional Officer, Mr Ekongolo Nlate, who was very instrumental in the eviction process that began in 1953, was a resident in Djoum (Chief Zeh Gaston 2011, pers. comm.);
- Prove empirically that loss of tenure and resource access rights, law enforcement and participation in conservation are incompatible in the same community at the same moment;
- Enhance complementarity between traditional and modern conservation strategies by emphasizing on the viable features of the cultural practices of indigenous Baka that guarantee sustainable use and forest resource conservation, social cohesion and solidarity between Baka and Bantu;
- Mitigate Baka estrangement from conservation, servitude and conflicts due to their eviction and the creation of protected areas in their ancestral lands;
- Enhance Baka ingenuity in reducing emissions from all land uses through the adoption of environmentally-friendly farming practices in their current settlement sites;
- Affirm abusive depletion of not only the forest resources conserved by indigenous Baka using their traditional knowledge system but also the improvised Njengi[2] sacred forests near their current settlement sites by logging companies, safari hunters and local Bantu communities under which the Baka have been subsumed; and
- Use the effects of climate change on the socio-cultural life of Baka to spur them to participate in REDD Plus policies and programs in order to mitigate such effects.

Statement of the Problem

One of the greatest fallacies undermining the participation of indigenous peoples in sustainable forest management in Cameroon is monism of tenure. Despite a battery of forest management laws in the country, quantitative and qualitative depletion of forests is being aggravated by mistaken policies. The modern tenure system (*de jure* tenure system) upheld by the state and non governmental organizations (NGOs) in the country with public utility status has not only eschewed the traditional tenure system, but has failed to recognize land and forest resource rights of indigenous peoples and local communities and to integrate positive aspects of the traditional tenure system and traditional conservation strategies.

The state, NGOs, funding bodies, and multilateral organizations still perceive climate change and forest conservation as issues requiring only technical and regulatory solutions that must originate outside indigenous peoples, whereas they are those who pay the price of conservation. The solutions and opportunities intended to offer indigenous peoples through REDD Plus policies and programs do not take their priorities and preferences into consideration.

Worse still, such solutions require radical and fundamental shifts in socio-political structures, technological and economic systems, organizational forms, and modes of regulation that do not match with the units of social life of indigenous peoples. These shifts are rather prone to distorting those cultural, socio-economic and spiritual values that have effectively established a harmonious relationship between indigenous peoples and their forest lands and territories. This relationship has enabled them to conserve the remaining forest massifs[3] and enhanced carbon stocks long before REDD Plus policies and programs were proposed.

Despite this significant contribution of indigenous peoples in protecting, conserving and sustainably managing these forests, which today are valued by various stakeholders for their carbon sequestration role, land and resource rights of indigenous peoples have not been secured in law. On the contrary, the Government of Cameroon has consolidated its

grip over land and forest control through a controversial classification of land and forest that do not safeguard the tenure interest and resource rights of indigenous peoples and local communities.

The forest has been classified into permanent and non-permanent, with the two categories being under the aegis of the state, while land has been classified into private, public or national, with all land held by indigenous peoples and local communities under customary law as national lands. This forest and land classification approaches have divested indigenous peoples and local communities of their land tenure and resource rights, and therefore, have dissuaded them from participating effectively in sustainable forest management for carbon sequestration and climate change mitigation.

Indigenous peoples such as the Baka (Pygmies)—who inhabit the last remaining tropical forests areas in the southeast of the country—have progressively lost their tenure and access rights through forceful eviction from their ancestral lands by the state to make way for national parks, forest reserves, safari hunting zones, and forest management units allocated to logging companies. All these serve the interest of wealthy foreigners. Their eviction from their ancestral lands to settle along major road axes in the southeast of the country under the despotic rule of Bantu chiefs and communities has complicated their tenure situation and has eschewed them from making any forest management decisions.

With no access rights again to their ancestral lands and no tenure security in their current settlement sites, state protected areas are planned and created in their vicinity without any regards for the UNDRIP in matters of right to self-determination and free, prior and informed consent as a precondition for any conservation action to occur in indigenous lands. The created protected areas are governed by laws drafted and promulgated by the state without the consent, contribution or inputs of indigenous peoples; yet, the state requires them to participate in the implementation of such conservation laws.

Although the 1994 Forestry and Wildlife Law allows local peoples to acquire community forests (CFs) in the non-perma-

nent forest, a multiplicity of factors have rendered the process cause ineffective. Factors such as limited political will of the state to devolve from management, effort by conservators to take advantage of legal flaws to victimize indigenous peoples in order to justify demands for conservation funds and alleviate their poverty situation, orientation of the process towards expert knowledge, the time and cost required, constitute the bone of contention. The legal classification of land and forest, coupled with statutory exigency for obtaining land titles and registering private lands, have put indigenous peoples and local communities out of steam whereas they depend directly on land and forest for a livelihood.

The core problem in clear terms is that eviction of Baka from their ancestral lands and the subsuming of these indigenous peoples under despotic Bantu chiefs and communities have distorted their perception of the forest, divested them of tenure and resource access rights, and eschewed them from forest conservation and use. It is against such a background reflection that this study has been designed to throw more light on the need to integrate traditional conservation strategies of Baka in the conservation frame and to secure their land and resource rights in law in order for them to participate in sustainable management of forests within the framework of REDD Plus policies and programs.

Objectives of the study

The general objective is to study the impact of resettling the Baka along main road axes and loss of tenure rights on their socio-economic and cultural life and participation in forest management, conservation, enhancement of forests stocks and climate change mitigation within the framework of REDD Plus policies and programs.

Specific objectives

1. To study the impact of evicting Baka from their ancestral lands and their current tenure relationships with

Bantu local communities on the distortion of their perception and management of the forest.
2. To study their traditional forest governance within the context of institutions and rules governing forest ownership, management and use, and the challenges inherent.
3. To identify threats and obstacles that constrain traditional forest resource management practices of the Baka, the transfer of these practices and knowledge to the younger generations, benefit-sharing, and the participation of the indigenous peoples in REDD Plus policies and programs.

Hypothesis

State and missionary eviction of Baka from their ancestral lands in the southeast forest ecosystem of Cameroon and imposition of a sedentary lifestyle under the despotic rule of Bantu chiefs and communities have undermined their perception of the forest, traditional resource rights, development and their participation in sustainable forest resource management within the framework of REDD Plus policies and programs.

Definition of Key Terms and Concepts

A number of terms have been used in this work and need to be defined in order to situate them within the context of the study. The definitions adopted are either theoretical, conceptual or both. The intention is to articulate them around the context and background of REDD Plus policies and programs vis-à-vis the perceptions of local Baka, facilitators, the Forestry Administration, and law enforcement officers in the southeast forest zone of Cameroon. Among these terms are access to natural resources, alternatives, benefit-sharing, claims of indigenous peoples, climate change, conflicts and conflicts of interest, deforestation and forest degradation, eviction from ancestral lands, inter-community dialogue, REDD and REDD Plus policies and programs, southeast forest zone, and tenure rights.

i. Access to natural resources

This concept refers to the right or permission and means to own natural resources, enter a forest, exploit, manage and use surface and sub-soil natural resources by members of a community (men, women, girls and boys) or members of a corporate body (a legal entity such as an association, a cooperative, common initiative group, and an economic interest group) at a given time and place.

ii. Alternatives

Alternatives in this context are livelihood activities and methods that have been introduced or improved upon in rural communities and the capacity of the local people to carry out such activities built in order to dissuade them from practicing familiar activities and using methods that degrade biodiversity and biodiversity hotspots. They could equally be optional resources or landed assets such as grazing land and farmland allocated to individuals and/or communities for similar resources lost for the purpose of conservation. Alternatives constitute an important development package that can reduce pressure on a protected area due to agricultural encroachment, over-harvesting of resources or grazing. By increasing the value of livelihoods derived from land outside the site valued for biodiversity conservation through the promotion of adapted agricultural technologies (traditional and modern), and by providing training, inputs, storage facilities, evacuation, and marketing possibilities for alternative economic activities, the pressure on protected areas will be reduced to the barest minimum.

iii. Benefits and benefit-sharing

A benefit is a good (incentives and forestry royalties) that contributes to the well-being of an individual or community. Benefits transcend harm as far as they promote the welfare of an individual or community. Thus, a benefit is not identical

with profit in the monetary or economic sense. Determining a benefit depends on needs, values, priorities, and cultural expectations (www.gene.ucl.ac.uk/).

In this context, it becomes clear that benefits are of two main categories, which are monetary and non-monetary benefits. Monetary benefits include fees collected, research budget, royalties, and salary for collection services. Non-monetary benefits consist of benefits in kind such as infrastructure, social amenities, food, transport, licences, collections, and the integration of conservation goals into projects; information, technological transfer, training, joint research and development, institutional capacity building, and local income generation and employment (www.biodiv.org/). Benefit-sharing is a mechanism through which goods (incentives and forestry royalties) and services that contribute to the well-being of an individual or community are distributed among individuals in a community to enhance social justice and cooperation.

iv. Claims of local communities

These are the demands or assertions as a right made by rural populations in the form of facts that combine to hopefully give rise to a legally enforceable right or judicial action that serves as an improvement in the legal provisions of the 1994 Forestry and Wildlife Law in Cameroon.

v. Climate change

Climate change refers to any observed evolution of the average atmospheric conditions (patterns in temperature, precipitation, wind, sunlight, atmospheric pressure, and humidity) over a long period of time due to natural variability or as a result of anthropogenic causes. The phenomenon of climate change is not new as it has always occurred and influenced the course of human history and human evolution. The unprecedented issue about climate change is that unlike previously when changes in the world's climate were due mainly to natural variability, current changes in climate are as a result

of massive dependence on carbon-based fuels such as coal, oil and natural gas. These bring about greenhouse gas emissions (GHGs) that cannot be adequately absorbed by green plants due to wanton deforestation and forest degradation.

vi. Conflicts and conflicts of interest

Within the present context of the 1994 Forestry and Wildlife Law and the livelihood of indigenous peoples and local communities vis-à-vis the conservation of forests and forest-based resources, conflicts refer to incompatibility of customary and statutory legal systems, opposition of ideas, views or interest. Conflicts in this context also touch on disagreement between members of a legal entity (an association, a cooperative, a common initiative group, and an economic interest group) with rights to own and manage a community forest and the rest of the members of the community, local civil administrators, forestry administration or municipal authorities. The conflicts can be disagreement between the various members of a legal entity. Conflicts of interest are the incompatibilities that may arise between the duties of an office or position and the opportunities that go with that office or position. The flaws in the 1994 Forestry and Wildlife Law have largely enhanced these conflicts of interest.

vii. Deforestation and forest degradation

Deforestation is the complete felling and clearance of a forest and it is due to drivers such as logging and agricultural activities, monoculture plantations, road expansion, mining, oil extraction, and the production of charcoal and firewood. These drivers of deforestation lead to the depletion of flora species that are effective in checking the volume of GHGs in the atmosphere. The more the volume of GHG emissions in the atmosphere, the greater the likelihood of climate change. Forest degradation refers to the lowering of the quality of forest and forest-based resources.

viii. Eviction from ancestral lands

In this study, this concept refers to the removal of Pygmies from their forest habitats and resettling them along road axes for humanitarian and social reasons, which in the course of time were extended to conservation reasons with the use of force in order for these indigenous peoples to make way for protected forest areas. At the beginning, indigenous peoples in the southeast forest zone of Cameroon were being sensitized by the government and white missionaries to settle along road axes. The sensitization phase soon came to an abrupt end, making way for a coercing phase when logging companies started gaining forest exploitation concessions in the area and when conservation and sport hunting activities took central stage in the southeast forest zone of Cameroon. All resistance mounted by the Pygmies against resettlement was brutally suppressed as a sedentary life was imposed on the Baka.

ix. Inter-community dialogue

This concept refers to peaceful coexistence between evicted Baka and the local Bantu under which they have been subsumed. The government expects the Baka and Bantu communities to negotiate and agree for such peaceful coexistence, whereas the communities are bound by master-servant relationship and the Baka cannot freely express themselves in the presence of Bantu for fear of chastisement through flogging. In their current settlement sites, Baka are considered by Bantu as aliens with no tenure rights and as a source of free or cheap labor. Bantu invite Baka chiefs and representatives when their services are needed, but are represented by Bantu when benefits are shared.

x. REDD and REDD Plus policies and programs

REDD is the term used in the UNFCCC and is an acronym for Reducing Emissions from Deforestation and forest Degradation in developing countries. This is a climate change

mitigation measure that seeks to reduce GHGs by preventing or reducing forest loss and forest degradation. REDD is essentially about compensating tropical forest nation-states and companies or owners of forests in developing countries not to continue cutting their carbon-rich forests or to reduce their deforestation and forest degradation rates (Tauli-Corpuz et al. 2009).

We distinguish reduced emissions from deforestation and forest degradation (in small letters) from REDD (in capital letters). The one in small letters is the generic practice that is done by indigenous peoples and other forest peoples in terms of defending their forests from deforesters and practicing their traditional forest management systems which are strictly regulated by customary laws. The REDD is the official program being negotiated at the UNFCCC

REDD Plus is the addition of conservation, enhancement of carbon stocks and sustainable management of forests to deforestation and degradation. This addition was agreed upon by the Parties at COP 13 in Bali in order not to limit compensation to activities that check deforestation and forest degradation, but to also compensate conservation, enhancement of forests stocks and sustainable management of forests (Tauli-Corpuz et al. 2009).

xi. Southeast forest zone

The southeast forest zone of Cameroon is the part of the Congo Basin Forest, which is found in the political East and South Regions of the country. The forest in this zone is a combination of tropical and semi-deciduous forest and a lot of conservation importance has been attached to this forest massif because of its rich flora and fauna resources. The southeast forest zone of Cameroon hosts the Lobeke, Boumba-Bek and Nki National Parks, as well as the World Heritage Dja Reserve. The forest massif has recently been classified as Tridom Landscape Cameroon segment.[4]

xii. Tenure rights

Within the framework of our study, these concepts refers to forest tenure, which is the right defined in customary or statutory terms and that determines who can hold and use forestland and resources, for how long, and under what conditions (Springate-Baginski and Wollenberg 2010).

Significance of the Study

Eviction of Baka from their ancestral land to make way for protected areas was thought to be the best approach to forest conservation. This approach has divested indigenous peoples of their tenure rights, engendered conflicts, undermined the role of culture in conservation, and eschewed indigenous peoples from participating in conservation whereas their traditional conservation strategies have proven effective in the course of time. The Government of Cameroon and conservation NGOs have not taken off time to find out why the instrumentalist approach has not been able to check deforestation and forest degradation even in those protected areas under their aegis, or spur indigenous peoples to participate in conservation. It is, therefore, important to assess the compatibility of the technical and regulatory approach with the units of social life of indigenous peoples, particularly as the success or failure of REDD Plus policies and programs depends on their acceptability by those in the areas where they are to be applied.

Methodology

The methodology used for this study was a descriptive survey with a rapid rural appraisal approach (MARP). The study began with a discussion of the pertinence of the terms of reference with Lelewal Foundation (Lelewal) colleagues and partners in Yaounde and Djoum in order to select an appropriate case study and study sites where substantial and adapted information could be obtained. Possibilities to get

resource persons and/or consult relevant documentation were also discussed. These discussions and selection of the case study and study sites paved the way for data collection.

The data for the study comprise secondary and primary and their collection began with the secondary type. Secondary data were gleaned from documents related to the 1994 Forestry and Wildlife Law, on the law itself, and on its Decree of application. Additional secondary data were obtained from the archives of Baka communities in the keeping of their local unrecognized chiefs, NGOs such as AGEFO-Baka,[5] CAFT,[6] COVAREF,[7] GTZ,[8] MINFOF, OCBB, PADES-Baka,[9] SFID,[10] and WWF that have been working in the southeast of Cameroon in the domain of conservation, as well as from public and private libraries. Documents consulted provided invaluable information on statutory and customary land tenure, ownership and property rights, devolution of state from management, climate change, and REDD.

Primary data collection began with a familiarization visit to the study area in order to ascertain the possibilities of carrying out the study, the difficulties anticipated, and the availability of information. During this first visit, the 1:100000 Village Dictionary map of Dja *et* Lobo Division, the 1:1000000 Tridom Landscape Cameroon segment map of WWF (2010), and the 1:50,000 topographic map sheet of Djoum were used to delimit the study area and to guide the indigenous peoples during the sketching of the traditional forest concept maps. Three study clusters were selected for the study, each on one of the main road axes radiating from the town of Djoum in the north, south and west directions. In the north, is the cluster representing the Sangmelima-Djoum axis, with four sampled Baka communities. In the south, is the cluster representing the Djoum-Mintom axis, with three sampled Baka communities; and in the west, is the cluster representing the Djoum-Oveng axis, with three sampled Baka communities as Figure 2 shows.

After the first visit, three survey instruments (questionnaire, interview and focus group discussion (FGD) guides were designed by the research and shared with Lelewal and its collaborators in Djoum in preparation for the second visit. The collaborators of Lelewal in Djoum also served as confi-

dence builders. Following the data that were intended to be collected, these collaborators of Lelewal in Djoum and the researcher jointly planned for a data collection phase in the selected study sites. During this second field visit, a questionnaire was administered to 132 respondents or households, six FGDs were held and nine persons were interviewed.

After processing the copies of questionnaire administered to the respondents, 20 were rejected due to the sketchy and incoherent information provided by some respondents who were noticed to be less informed on issues of Baka tenure and resource access rights, as well as their cultural practices and participation in conservation within the framework of REDD Plus policies and programs. A few others were either in the forest for hunting and gathering during the period of questionnaire administration or refused to collaborate due to no change in their situation after many years of providing information to researchers. Some of those whose copies of questionnaire were rejected were of Bantu and Baka parents. Effectively, 112 copies were retained, giving a percentage of 85 (Table 1).

Table 1. Number of those who effectively responded to each of the survey instruments

Cluster	Village	Respondents to questionnaire	Respondents to interview guides		Number of FGDs	Number of visits to the forest
			Men	Women		
Northern cluster Sangmelima-Djoum	Abing	11	-	-	1	-
	Keka Abegue of Djouze	10	1	-	-	-
	Kungu of Miatta	12	-	1	1	1
	Wela of Melen Bulu	15	-	1		-
Southern cluster Djoum-Mintom	Ando'o	6	1	-	1	-
	Meban II	7	1	-	-	-
	Mfem II of Mfem	17	1	-	1	-

Western cluster Djoum-Oveng	Meyosobam	8	-	-	1	-
	Minko'o II of Minko'o	18	1	1	1	1
	Nkan	8	-	1	-	-
Total		112	5	4	6	2
%		85				

Source: Field work 2011.

A common characteristic of Baka communities is that they are of very few households and with the exception of gender specificities, they are largely homogenous in their livelihood activities. None of them had more than 20 households at the time of study and all of them in the 10 sampled communities were targeted for questionnaire administration. Following the inability of Baka to express themselves in the presence of Bantu and the inability of Baka women to talk in the mist of men, questionnaire administration, FGDs and interviews were carried out in such a way as to guard against gender bias. In this case, questionnaire administration to women was often done after FGDs since all households were to be covered.

In general, the questionnaire was administered between 4:00 pm and 6:00 pm after the Baka have returned from hunting, gathering and/or farming. Sunday is an off day for Baka as many of them have become Christians and served as a good day for questionnaire administration. The FGDs were organized in such a way that two were mixed (workshops) and two others for men and women separately or largely dominated by one sex. As to the interviews, five men and four women were interviewed. Each of the workshops took place in the morning of the day after the guided tour and working session in the forest. The guided tours took place in the forests around Minko'o and Miatta and were intended for participant observation of forest compartments, available forest resources, and the forest resource exploitation techniques used by these indigenous peoples.

During the two joint FGDs, which took the form of workshops, Baka men and women used their knowledge of the forest as hunters and gatherers to facilitate the drawing

of traditional concept maps of their forests by one of them who coincidentally was a collaborator of Lelewal in Djoum. The conceptualization of the maps started on blackboards in two pre-primary schools. After the participants conceived the traditional concept maps, based on their imagination of the forest compartments, water bodies and paths, the research team provided a 1:50,000 topographic map sheet of Djoum in order for them to make necessary adjustments since it contained water bodies, state protected forest compartments, Bantu settlements and roads that could guide them. The consensus maps were reproduced on cardboards using bold markers after the adjustments were made.

Identification of interviewees was facilitated by the collaborators of Lelewal in Djoum. Interviewees were selected among custodians of forest-related traditional institutions such as Njengi, Yeyi and Elimbo, elderly men and women (or kôbô) and young people. Two of these interviewees were interviewed in their farms for purposes of participant observation.

As for the FGDs, they were organized mainly in those communities where no one was interviewed in order for the Baka in these communities to make joint contributions. During the participant observation phase in the forest and at home, some relevant photographs were taken and have been integrated in this report.

Data Processing

The data collected with the aid of the survey instruments were analyzed depending on the type of survey instrument. The processing of data began with data input of all the data collected in the field. The data input was in Word Excel software and the Excel data were then exported by a statistician in SPSS[11] software where they were processed by weighting the responses for each question in the questionnaire one unit to allow for quantification.

Through this process, quantitative data were generated from questionnaire responses and were used to draw tables and graphs while interview, FGD and observation were used

to generate qualitative data. Both sets of data were useful in the analysis made in relation to Baka's perception of the forest, customary forest governance and the role of indigenous women and young people in forest management. Adobe Illustrator and Picture Manager were used to draw maps and to treat photos, respectively. The photos were taken using a digital camera and were useful in spatial analysis.

Main Findings of the Study

The last remaining forest massifs, which are currently valued for their role in carbon sequestration and environmental resilience, are mostly places inhabited by indigenous peoples. Government policies to protect such forest massifs are oriented towards technical and regulatory solutions, which undermine the role of indigenous peoples; whereas the success or failure of any proposed conservation measures depends on their acceptability within the local constituencies where they are to be implemented. It has seldom been considered that forest conservation is a cultural arena in which a variety of stakeholders—state agencies, firms, industry associations, NGOs, indigenous peoples and local communities—engage in contestation as well as collaboration over the form and substance of evolving regimes of governance. The impact of neglecting the cultural dimension of resource management on the entire conservation frame has been perceived among the Baka in the Djoum forest area.

The Role of Modern Tenure and Eco-Centered Conservation in Distorting Baka's Perception of the Forest Bélé

Forest bélé tenure and eviction of Baka

Historically, the Baka were among the first settlers of the Congo Basin and through their horizontal expansion, they currently live in parts of the southeast forest zone of Cameroon although with no recognized tenure rights. Among the Pygmies, forest is a "quasi open-access" domain characterized by free-for-all exploitation of nature-given forest resources with no effective tenure guardrails. According to field informants, these indigenous peoples consider a forest as a common property of the community, owned through historical attachment and its members must benefit from it. This perception is different from that of the state, logging companies and conservators. While logging companies perceive the forest as an entirely timber exploitation domain for export, the state and conservation NGOs perceive it as a viable source of foreign earnings through eco-centered conservation approaches that undermine the socio-cultural attachment of indigenous peoples to it. The perception of these pioneer settlers progressively became distorted, beginning with the eviction of these Pygmies from their ancestral lands since 1953 (Ntolo Regine, Eyinga Jacqueline, Zeh Ekomba Gaston, pers. comm.).

At the eve of independence, the decolonization forces of Cameroon in the southeast forest zone felt that Pygmies, who are the pioneer settlers of the country, should abandon their nomadic lifestyle and settle along road axes in order to share in the benefits of the expected independent Cameroon. That initial humanitarian and socially-oriented sedentary process was very salutary and European Missionaries in the country became committed to seeing it come to fruition (Photo 1).

After independence, and particularly from the 1970s when logging companies started gaining forest exploitation concessions in the area, and when conservation and sport

hunting activities took central stage in the southeast forest zone of Cameroon, the Baka were no longer sensitized. They were coerced to leave their ancestral lands in order to make way for national parks, reserves, sanctuaries, synergetic hunting zones, and forest management units (UFAs).

These informants intimated that all forms of resistance that were mounted by the Pygmies against resettlement were brutally suppressed, thus the expression, "pkweke-mbungue" or force of the white, which is very common among the Bakas. White in this context has a dual significance as it is synonymous to administration, and at the same time, refers to the white missionaries who aided the administration of Mr. Ekongolo Nlate, the then Cameroonian born Divisional Officer in Djoum, to evict the Baka from the forest. Some Baka communities are actually called Pkweke mbungue—this is the case with Minko'o Pkweke-mbungue (Minko'o II), which is the Baka community subsumed under Minko'o village.

Photo 1. A resettlement camp



Abing resettlement camp constructed for the Baka by Catholic missionaries near Djoum along the Sangmelima-Djoum road axis. Photo by Enchaw Gabriel Bachange.

Field informants alleged that before the Baka were evicted from the forest, they had established friendship links with individual Bantus with whom they usually met in the forest during hunting and gathering. This friendship links later evolved to alliances as each Bantu family was collaborating with a particular Baka in terms of trade by barter and recruiting labor in the cocoa farms of Bantu. With the advent of a monetary economy, the Baka combined barter with the sale of some forest products in order to procure local hunting gears, salt and dresses. When the Baka were evicted from the forest, their alliances were maintained and they were subsumed under particular Bantu families and villages. From that period up to presently, the rate of servitude has intensified as the Baka were and are compelled to work for their Bantu masters either for limited payment in kind or for protection; thus, the expression "my baka" ("ebaya") was born and is still maintained at the 21st century (Zeh Ekomba Gaston, Ekele Daniel and Mendo Julie, pers. comm.).[12]

The 1994 Forestry and Wildlife Law and its Decree of application finally sealed the deal to divest indigenous peoples of their tenure and resource access rights. This law opted for a classification of forests into permanent and non-permanent, allows for the creation of protected areas under the aegis of the state and conservation bodies, as well as the granting of forest concessions to logging companies and sport hunters in the vicinity of indigenous communities without their consent.

In the field, it was observed that various stakeholders contest the southeast forest of Cameroon, with the recently emerged stakeholders having tenure rights over the forest more than the pioneer settlers. Field informants expounded that ownership of forest among Baka indigenous peoples is not associated with land titles and that none of them, even in their current resettlement sites, had a land certificate at the time of study as the 1974 land reforms required. Considering the modern land and forest management strategies employed by the state and conservation NGOs, it was noticed that Baka indigenous peoples have been denied access to the forest that plays host to all their life-sustaining and spiritual activities. Worse still, in their current resettlement sites, they are devoid

of land tenure rights, even over construction space for the growing population, and are under the despotic rule of Bantu communities and chiefs who still chastise them by flogging and, together with logging companies, destroy their sacred forests (Mendo Julie, Ekomo Claire and Ekele Daniel, pers. comm.).

In the opinion of these informants, the Baka are usually not called upon to participate in conservation activities. Within the present master/servant dispensation, the Baka cannot make any conservation initiative as they no longer have access to the forest, even their Njengi, Yeyi and Elimbo sacred forests, which constitute traditional conservation sites. This is a clear indication that Baka participation in conservation within the framework of REDD Plus policies and programs will seldom be brought to fruition without securing the land and resource rights of these indigenous peoples, local communities and women in law.

These indigenous peoples differ from the other peoples in the country in terms of their lifestyle and the way they perceive their ancestral lands. Though almost the entire landscape of Cameroon is dominated by a sedentary lifestyle, indigenous Baka communities in the forest zone are still identified with a semi-sedentary lifestyle. Their eviction from the forest and resettlement along road axes notwithstanding, the Baka acknowledged that they still maintain a close link with the forest for they still depend on it for their entire livelihood.

Forest bélé use among the Baka

The use of the forest to the Baka can easily be perceived in the social, cultural, economic and political domains. Etymologically, bélé, in Baka language is from focal point of life. This simply means that the life of a Baka revolves around the forest as all aspects of their units of social life are inextricably linked with the forest (Ekele Daniel, pers. comm.). Field informants acknowledged that Baka use the forest in various ways such as for agriculture, hunting, gathering of what to feed their families and of forest products for sale, treatment

of diseases, constructing their huts, and for spiritual purposes (Table 2).

Table 2. Respondents' views on Baka dependence on the forest bélé for a livelihood

Cluster	Village	Resp.	What are your current uses of forest bélé as Baka?					
			For everything	For gathering/ hunting	Source of food	Source of medicine	A place for rites	A home
Northern cluster Sangmelima-Djoum	Abing	11	11	11	11	11	4	8
	Keka Abegue of Djouze	10	10	10	10	10	6	8
	Kungu of Miatta	12	12	12	12	12	8	9
	Wela of Melen Bulu	15	15	15	15	15	12	10
Southern cluster Djoum-Mintom	Ando'o	6	6	6	6	6	6	6
	Meban II	7	7	7	7	7	6	6
	Mfem II of Mfem	17	17	17	17	17	6	17
Western cluster Djoum-Oveng	Meyosobam	8	8	8	8	8	5	7
	Minko'o II of Minko'o	18	18	18	18	18	18	18
	Nkan	8	8	8	8	8	8	7
Total		112	112	112	112	112	79	96
%		100	100	100	100	100	70.5	85.7

Source: Field work 2011.

The economic use of forest to Baka

In the economic domain, it was observed that the Baka depended on the forest for everything they sell in order to raise household income. Among the forest resources in which they trade, as interviewees revealed, were bush meat (soh), fish (si), honey (poki), rattan (pkwo'o), moabi oil (adjap), caterpillars (kôbôs), mushrooms (tolo), bush mango (peke, ndo') and curative herbs. As concerns bush meat from hunting,

all the respondents were unanimous that from the moment the Baka were introduced to bush meat trade, their income has increased despite seizure of game by forest guards and apprehension.

During an interview with the Baka Chief of Minko'o Pkweke-mbungue (Minko'o II), the informant alleged that when they were still in the forest, they used to provide bush meat to the Bantu in exchange for cassava and other food items. During that era, they knew only trade by barter. But when they were evicted from the forest, they started giving their bush meat and other forest products to those Bantu, with whom they were collaborating while still in the forest, to sell. In the course of time, the Bantu betrayed the trust as the Baka realized that former were cheating them and began commercializing their forest products. With this change in lifestyle, coupled with rising cost of living, the pressure on fauna increased, particularly as the Baka men could get sophisticated firearms and wires from the Bantu and foreign sport hunters.

The responses of the respondents on Table 2 indicate that all Baka acknowledged depending on the forest for food, which is made among others of wild tubers, fruits, vegetables, termites, snails, and caterpillars. All the five men and four women that were interviewed affirmed sex roles among the Baka. As they pointed out, hunting, harvesting of honey and fishing in big rivers were mainly practiced by men and young boys, while gathering of non-timber forest products such as wild yams (sabas), caterpillars, snails, termites, mushrooms, bush mangoes of all species, forest vegetables, wrapping leaves (pkwangongo), moabi fruits for vegetable oil production, and fishing in streams and brooks (Plate 1) are done by women and at times aided by children.

Plate 1. Forest food



From left: A child with gathered caterpillars in Ando'o; A woman with mushrooms in Minko'o II; Wild yam and bush mangoes in Ando'o; Women fishing in Miatta. Photos by Enchaw G.B., 2011.

Field informants, however, pointed out that while still in the forest some Baka men were working in Bantu cocoa farms in exchange for cassava during seasons of yam scarcity in the forest. They also alleged that the owning and cultivation of farms had not been part of their culture until the imposition of a sedentary lifestyle. The sedentary lifestyle and activities they adopted from their Bantu neighbors increased pressures on forest and forest-based resources, especially as the quest for money and their populations have increased. For instance, they have started hunting for ivory using firearms from Bantu and sport hunters.

The carving out of the forest for conservation as national parks has deprived the Baka of an essential source of food supply. This is for example the case with wild yams that have become very scarce as female informants noted. Baka women, with whom the research team had focus group discussions, pointed out that the destruction of many wild yam sites by logging companies has force women to trek over longer distances than before in order to procure it.

Handicraft is an important socio-economic activity practiced by the Baka. It is considered as their third source of income. It was observed in the field that Pygmies also practice basket weaving; sculpture of mortars and pestles (Photo 1), boards used for crushing, drums and other materials used for traditional dances; making braids of raffia plaited for the roof-

ing of slots; the construction of huts; making lobster pots for fishing; forging of knives, spears (sés), arrows, axes (mokiwés); construction of beds; and the manufacturing of objects from skins of beasts. Concerning sculpture, it is important to note that it is an art that requires very rare species of wood. This brings about a slow destruction of forest resources.

Photo 1. Mortar and pestle



A kôbô sculpting in Minko'o II. Photo by Enchaw G.B. 2011.

Spiritual use of forest

The Baka perceive the forest as a place for spirituality. The cultural and religious life of indigenous peoples in Cameroon is dominated by various masquerades, deities and spiritual communication with their ancestors. The masquerades appear during cultural dances in camps and villages where they perform with a lot of dexterity. Some of the masquerades are reserved only for men, particularly those who have been initiated. These are those that constitute the regulatory societies. This is the case with Njengi, Joboko and Kosse that govern the

divination dance of the Baka. Then, another spirit known as Yéli prepares young girls for womanhood and induces them with singing ability when initiated using nbwahka[13] fish.

Their cultural and spiritual life requires the sacrifice of an elephant every year during Njengi ritual. Religion acts as a binding force between the peoples, animals and forest as well as the construction of a living world where all can communicate, give and take. Moreover, field informants held that there are protected forest areas that host their various spirits of the forest.

According to those interviewed, the forest is used for spiritual activities and serves as a place where the living and the spirits of the forest commune. Similarly, the forest setting is at the center of funeral ceremonies and it is in forest that they communicate with the ancestors, calling for them to intercede on behalf of the living for protection during hunting expeditions or fighting against evil spirits.

Traditional Pharmacopeia

In Cameroon, indigenous forest peoples (the Pygmies) are reputed for their invaluable knowledge of traditional medicine. They acknowledged using forest products of all sorts to treat various ailments. But when it comes to the functioning of pharmacopeias, the Baka keep this to themselves. That notwithstanding, during two guided tours in the forest, they were able to identify more than 133 forest products such as flowers, pollen grains, spurs, barks, insects, animals, birds, roots, fruits (pkwandako), seeds, lianas, ground mushrooms (tolo), leaves, fish, plants (Plate 2), and other creatures; and some of the diseases that could be treated with them either in combination or singly (Table 3).

Plate 2. Medicinal forest products



Some forest products with medicinal values identified by guides and informants during field work in the forest and around the Baka communities in Djoum. From top left: ndia, seeds of motokotoko, Tolo ground mushroom; from bottom left: ngata shrub fruit and leaves, nbwahka fish, and peke tree bush mango. Photos by Enchaw G.B. 2011.

They also said that the effectiveness of traditional medicine depends on the individual, the time and manner the medicine is harvested, and the incantation chanted when harvesting or administering the medicine. They concluded that all what God (Komba) has created constitute one form of medicine or another. Through their knowledge of traditional medicine, the Baka generate periodic and/or permanent household incomes, depending on whether he or she is an established traditional practitioner or not. Their customers are mainly their neighboring Bantus and some city dwellers. The range of their treatment goes at times far beyond those intended to relieve physical pain to include metaphysics and the provision of spells. For example, the manufacturing of love philters and decoctions for the protection of their users is also a source of income generation to these indigenous forest peoples.

Table 3. List of some forest products with medicinal values

Baka name	English name	Disease treated	Method of preparation and administration
Gauga		Malaria	
Motokotoko tree (wild quinine)		Malaria	Chew 2 or 3 grains and swallow with water twice a day, scoop the bark, boil and drink a spoon morning, afternoon and evening.
Beka shrub		Malaria	Get the roots, grind to powder, mix with water and drink morning, afternoon and evening.
Pkwakeleba		Acute headache	Get leaves squeeze juice in 2 liters of water and wash the head with it.
Ngata shrub		Painful menses	Squeeze juice from young leaves and drink.
Bemba		Diarrhea	
Pkwando		Diarrhea	
Péké		Diarrhea	
Libaba		Diarrhea	
Sengui		To wash away ill-omen	
Ndia		Abscess	
Boloma		Chest pain	Squeeze a foaming juice from the bark and drink.
Sasagoulou		Stomach ache	Get the bark, pound, boil and drink juice.
Ngata		Stomach ache	
Akol		Stomach ache	

Source: Chief Zeh Ekomba Gaston, Mama Ntolo Regine, Aboah, Eyinga Jacquelline, Jeannette and Akoumba Martin Paul 2011.

Forest governance among Baka

Field data revealed that traditional forest governance of the Baka is fully embedded in their socio-political organization. Two distinct phases in the process of forest management were identified. These are the phase during which they were still in the forest and that during which they are along run axes under the Bantu. Informants expounded that before their eviction from the forest, they had a loose socio-political organization characterized by a nomadic lifestyle that enabled them to live in harmony with nature.

In the forest they were living in bands of less than 50 individuals in four to seven huts (mongulus) (Plate 3) and their daily chores were hunting and gathering. The time spent in each band depended on the rate at which animals hunted or forest products for gathering get exhausted. As was the case, whenever they started experiencing less success in hunting and gathering, they moved to another site.

Plate 3. The mongulus of the Baka



Even after eviction from the forest, the Baka have not abandoned their harmonious living with nature. From left: Baka camp near Minko'o; Baka camp near Ando'o. Photos by Enchaw G.B. 2011.

This nomadic lifestyle was one way of checking pressure on forest and forest-based resources and it was quite adapted to their limited populations at the time, and the vast area they were exploiting in the entire northwestern part of the Congo Basin Forest.

Baka traditional forest management strategies

In the field it was observed that the strategies used by the Baka to conserve, manage and use forest and forest-based resources are centered on their spiritual interaction with the forest. The research team listened to these indigenous peoples (Plate 4) describe their socio-cultural theories and models of conservation with salient aspects being toponomy, that is related to inventory of forest-based resources; and forest zonation, identification of abodes of the gods. These are often coincided with watersheds, catchment areas and fragile ecosystems that are subsequently designated as sacred forests for protection using the instrumentality of taboos (Ntolo Regine and Zeh Ekomba Gaston, pers. comm.).

Plate 4. Interviewees



The research team listening to interviewees from Minko'o Pkweke-mbungue. Interviews took place in the part of Minko'o forest that has been allocated to Baka for food crop cultivation. Photos by Enchaw G.B. 2011.

These informants acknowledged the fact that the long stay of the Baka in the forest has enabled them to discover so many abodes of forest spirits, which they designated as sacred forests for Njengi, Kossé, Elimbo, Yeyi, Joboko, Dohdi, Ngaje, and Emboamboa. As they said, those who discovered such abodes elaborated a myth system that instilled an aura of sacredness to them and were the priests of such abodes (Fig. 3). They also said that the most reverent of all the Baka forest spirits was Njengi and it became a cult with rites performed in Njengi forest during an annual Njengi dance organized in hour of this spirit.

The informants further elucidated that access to Njengi forest was regulated by a taboo system that was binding among the Baka. Baka women were and are not initiated into Njengi and together with non-initiated men they had no access into this abode of Njengi.

In terms of surface area, an informant said that Njengi needs a large forest area in order not to be disturbed and such a forest could be 100 to 200 ha (1 to 2 sq. km), the informants noted. He corroborated this view by alluding to the fact that the Njengi in Minko'o Pkweke-mbungue has escaped into far off forest because the Bantu have destroyed more than three fourths of the abode of Njengi. This culture has been transferred to younger people through initiation and practical observation of its manifestation in the forest, informants noted.

Other sites that the Baka also discovered in the forest were related to toponomy. These sites include:

1. **The bouonlup site** situated at about 15 km from the palace of Eta village. This site is home to several wild gorillas which are quite hostile to any human presence. This could be attributed to the burial of the greatest sorcerer Amboh in its vicinity;
2. **The peace clearing** (**dââ le nkô–lebeha)**: It is situated within UFA 10034 near Adinko Stream. This clearing is peculiar in the peace that reigns between animals and humans when in the area. Going from the testimony of hunters, panthers and hares can be seen side by

side without the former hunting the later. Generally, there are never any fights within this zone;

3. **The Lekih le Nkô Lebeha:** This is a very high mountain found within the peace clearings. Based on unverified testimonies, several mysterious activities occur at the top of this mountain and no human has yet attained its summit;
4. **The nki waterfall (Lessok lé Nki)**: In this waterfall, water tumbles intermittently with violence. It is equally said that there are very strong magnetic forces in the water all trough the year.

In a purely conservation dimension, the informants alleged that pressure was minimal in Njengi forest as Njengi was an annual event and only the temple where initiated men could dance was cleared with sticks and only one elephant was sacrificed for the god. A kôbô in Minko'o corroborated this view by saying that during Njengi, a group of Baka women who are initiated in Yeyi and referred to as queen mothers used to teleguide the lone elephant often sacrificed and it was usually killed by a man who is induced with metaphysical powers by these women.

When the man left for the forest, the women would be carrying out incantation until he came back after killing the elephant. Such a teleguided elephant was killed even with a knife, spear or stick. No hunting or gathering was taking place in Njengi forest as there was a portion of the forest reserved for gathering and hunting with specific norms regulating hunting activities in it. Considering the size of the forest that was kept intact for a whole year and the fact that only an elephant was sacrificed a year and only a small portion of the forest was cleared with sticks, we could conclude that Njengi was effective in conserving the forest and its resources.

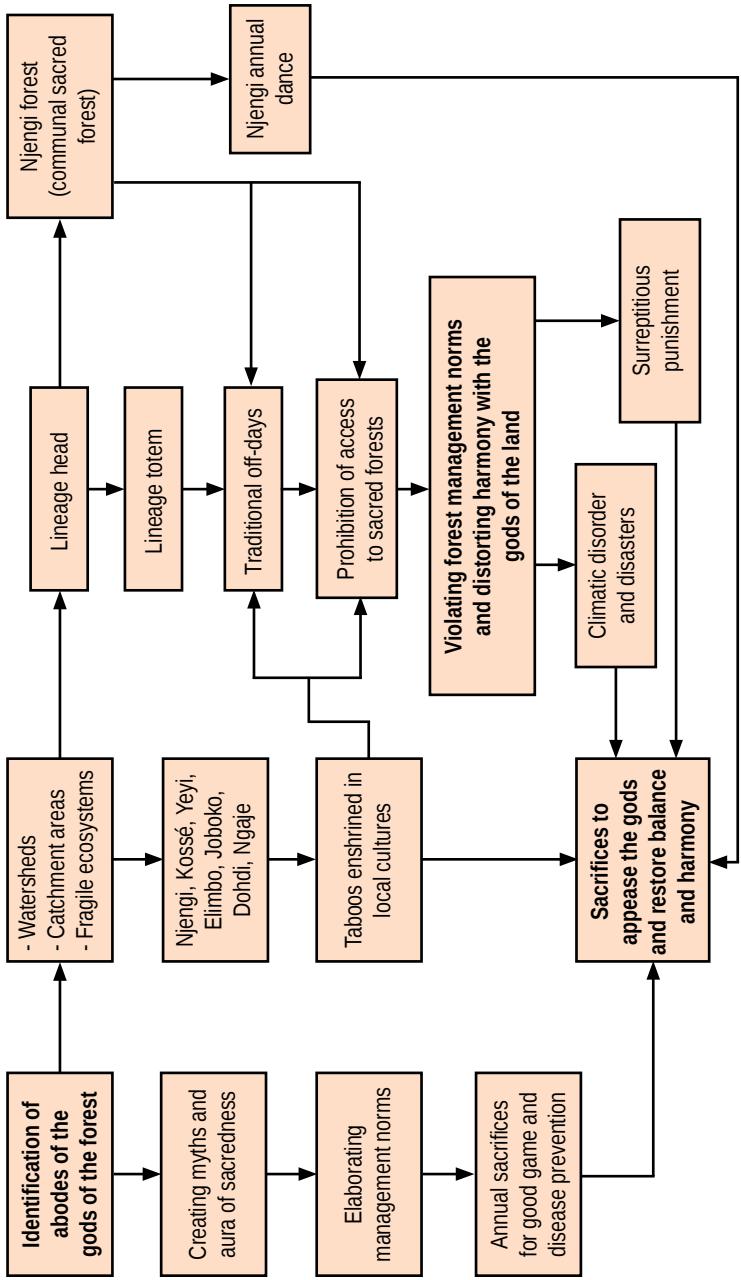
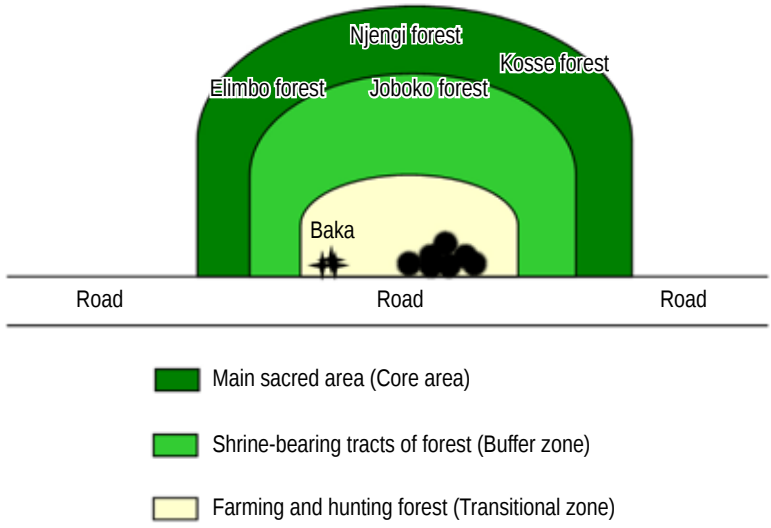


Figure 3. Baka traditional model of forest conservation

Source: Adapted from Enchaw Gabriel Bachange 2009.

Besides Njengi forest that served as the core conservation area (ndandai-eciti), there were other smaller forests reserved for the other spirits of the forest such as Kossé, Elimbo, Yeyi, Joboko, Dohdi, Ngaje that also became cults with their specific rites. This category of sacred forests were in the traditional buffer zone called parki-atiaciti by the Baka, and the outermost area was called tinajoko and was the common zone used by every Baka for hunting and gathering. This is an indication that the Baka had a traditional forest zonation approach analogous with the zoning of modern biosphere reserves[14] (Figure 4) as established by UNESCO (UN Education, Scientific and Cultural Organization) under Man and Biosphere (UNESCO 2003).

Figure 4. Baka traditional forest zonation in Djoum area



Source: Conceived from field information.

Biodiversity exploitation in the sacred forests belonging to the different forest spirits as well as the transitional or common use zone was regulated by taboos. For instance, hunting activities were regulated by prohibitive measures that barred hunting during periods when most of the species were reproducing. In addition, fragile or easily captured species

such as the musk deer were only to be hunted by initiated persons who were of the third age, and the consumption of great apes was simply prohibited (MINEF 2003, 25-29). Field informants further explained that uninitiated Baka men and women who violated the prohibitive access taboos and entered the sacred forests usually got surreptitious punishment that ranged from getting lost in the forest to contracting an incapacitating illness that could lead to death if the offending party failed to subject himself or herself to an expensive ritual cleansing process in order to appease the gods of the forest. All the sacred forests and the plants and animals in and around them, were therefore, protected in situ through the mystical and ritual sanctions that were elaborated.

Another traditional conservation strategy of the Baka was based on totemism (Table 4). Each Baka lineage was identified with a particular totem that was full of symbolism to the lineage. From the legends of the Bodawa lineage, monkeys aided them to escape danger that was coming through the forest by alerting them with a sharp sound. Bodawa cultural history is filled with stories of gorillas and chimpanzees helping old people and women carry heavy loads over long distances through the forest. Such a totem or animal was not killed or eaten by that lineage.

Table 4. Baka clan and totem in South Cameroon

Baka lineages	Totem
Bodawa	Do not eat monkeys
Yedongo	Tortoises
Yelikemba	Buffalo/ mbanga species of fish
Yemakomba	Antelopes
Njembe	Do not eat mbanga species of fish and buffaloes
Limber	Do not eat elephants
Mankombo	Do not eat eagles

Source: Baka Chief Njume Faustine.

Baka current forest bélé management strategies

The policy of the Government of Cameroon to resettle Pygmies and particularly to subsume them under local Bantu communities and chiefs has been more of a problem than a solution to the issue of sustainable forest management. The government erroneously felt that eviction of the Baka from the forest and the subsequent establishment of permanent and non-permanent forests compartments were the most appropriate policy approaches that could check deforestation and forest degradation in the southeast forest zone of the country. Little did the government know that the policy approaches were going to undermine the tenure and resource access rights of indigenous peoples and the strategies which they have effectively used in conserving the forest massifs that are currently valued for their economic and carbon sequestration roles. In the field, it was observed that the Baka have lost access rights to their ancestral lands as well as tenure rights in their current settlement sites, all of which have made it difficult for them to participate in any meaningful forest conservation program (Table 5).

The responses of the respondents on Table 5 show that up to 91 percent (83.9% + 7.1%) were of the view that from the time they were resettled along the road axes, they no longer have access to their ancestral lands. In their opinion, their ancestral lands (all their sacred forests) have been transformed to either national parks such as the Kom National Park in the south, the World Heritage Dja Reserve in the north, UFA 09-004a in the west, or UFA 09-004b in the south as Figure 2 on page 5 depicts. Worse still, the eastern section has recently been classified as Tridom Landscape Cameroon segment, which is co-managed by the Governments of Central African Republic, Republic of Congo and Cameroon.

These indigenous peoples alleged that they were actually surrounded by those protected areas and they no longer had access to their sacred sites since such sacred groves were found in the modern protected areas. Their allegation is founded because according to the 1974 Land Law all land held by indigenous peoples and local communities under customary law

Table 5. Baka loss of resource access and tenure rights and the impact on conservation

Cluster	Village	Resp.	Resource access rights in your ancestral lands					Tenure rights in your current resettlement site					Impact on conservation	
			Very low	Low	No idea	High	Very high	Very low	Low	No idea	High	Very high	+ve	-ve
Northern cluster Sangmelima-Djoum	Abing	11	11	0	0	0	0	11	0	0	0	0	0	11
	Keka Abegue of Djouze	10	8	2	0	0	0	10	0	0	0	0	0	10
	Kungu of Miatta	12	9	2	1	0	0	12	0	0	0	0	0	12
	Wela of Melen Bulu	15	13	2	0	0	0	13	0	0	0	0	0	15
Southern cluster Djoum-Mintom	Ando'o	6	0	0	2	6	0	6	0	0	0	0	0	6
	Meban II	7	6	1	0	0	0	7	0	0	0	0	0	7
	Mfem II of Mfem	17	17	0	0	0	0	17	0	0	0	0	0	17
Western cluster Djoum-Oveng	Meyosobam	8	8	0	0	0	0	8	0	0	0	0	0	8
	Minko'o II of Minko'o	18	16	1	1	0	0	18	0	0	0	0	0	18
	Nkan	8	8	0	0	0	0	8	0	0	0	0	0	8
Total		112	94	8	4	6	0	112	0	0	0	0	0	112
%		100	83.9	7.1	3.6	5.4	0	100	0	0	0	0	0	100

Source: Field work 2011.

is considered national lands and is under the control of the state. Similarly, according to the 1994 Forestry and Wildlife Law local populations do not have access in permanent forests among which are national parks, council forests, sanctuaries, safari hunting zones, and forest reserves.[15]

These respondents explained that from the moment they were forced to settle along the road axes, there was an upsurge of disrespect for their traditional symbols and cultural practices. As they put it, even the small-size Njengi forests that they improvised in their current resettlement sites in order to keep communicating with their ancestors through the annual Njengi dance, were either partly or entirely destroyed by logging companies, their Bantu neighbors and denominations for agricultural purposes.

In those communities where all the respondents said that they had very low access to forest and forest-based resources, their improvised Njengi forests were completely destroyed and other sites desecrated. This was the case with Abing, Meyosobam and Nkan. In Abing, it was observed during field study that the Njengi forest has been cleared by a denomination and planted with oil palms, while in Mfem II, the Njengi forest has been carved and put within a recently-created Djoum Council Forest and it has been desecrated with a portion under Bantu food crop farms (Plate 5).

In the other communities studied, with the exception of Ando'o, their Njengi forests were alleged to have partly been destroyed, but to the extent that Njengi had escaped and they could not organize Njengi dance in them any longer. That notwithstanding, these Baka communities could not allow the research team to visit the relics of the Njengi forests for they were not completely desecrated.

Plate 5: Relics of Njengi forests



From left: Former Njengi forest in Abing that has been cleared and planted with oil palms by a denomination; Desecrated Mfem II Njengi forest that is currently part of the Djoum Council Forest. Photos by Enchaw G.B. 2011.

In Ando'o, however, their improvised Njengi forest was alleged to have not undergone any severe deforestation and degradation by the time of study and this was the reason for which the Baka of Ando'o community still organized the annual Njengi dance. They also acknowledged that their Njengi forest was not rich in sapelli and moabi (adjap) tree species that are highly valued by logging companies. In addition, the forest around Ando'o village and community in general had not started experiencing pressure due to its vastness and their very low human population. Community register showed that Ando'o had nine households at the time of study and its population was 82 in 2009 and 86 in 2010 (pers. obs). The limited pressure on resources might have been one of the reasons for which Lelewal Foundation successfully negotiated for the organization of an Njengi dance in Ando'o community in September 2011, in the presence of a representative of Tebtebba during a community visit.

The fact that the Njengi forest at Ando'o was still intact at the time of study shows that through Njengi, Baka indigenous peoples could effectively contribute to forest conservation for climate change mitigation. This simply means that if their culture is integrated into REDD Plus policies and programs, their participation will be total.

This argument seems tenable for two main reasons. Firstly, in their ancestral lands, they have sacred forests, which

have been desecrated, exposing them to logging companies and sport hunters who are depleting timber resources and large mammals (Plate 6). Secondly, in their current sites, improvised Njengi forests are being desecrated and destroyed by other stakeholders, whereas a complementary approach that integrates modern and traditional conservation strategies could have been more effective in addressing issues of climate change and REDD Plus.



From left: Abandoned log from a fallen timber truck and other trucks coming with more logs near a Baka camp in Mambele, Photo credit: Enchaw G.B 2011; A bongo killed by a sport hunter in a synergetic hunting zone near Nki National Park in Ngoyla. Photo credit: Courtesy of MINFOF staff in Ngoyla.

The responses on Table 5 equally evoke the issue of tenure and show that all the Baka who responded to the questionnaire were unanimous that they have lost tenure rights in their ancestral lands and have not gained any in their current settlement sites, even though the dominant tenure there is customary. On the contrary, they were of the view that they have been removed from their ancestral lands and abandoned along the major road axes. Interviewees alleged that they have lost customary rights in their ancestral lands, which are conserved through modern tenure.

In their current sites, they have not been able to assert or reclaim customary tenure rights from the Bantu and, consequently, they have very limited land for habitation and farming despite the growing populations of the Baka in the various communities that are subsumed under Bantu villages and

chiefs (Zeh Ekomba Gaston, Mendo Julie and Ntolo Regine pers. comm.). All Baka communities visited during field work, with the exception of Abing, were surrounded by Bantu cocoa farms and Baka indigenous peoples were not allowed to develop or claim any part of these farms for house construction.

Under such circumstances where traditional conservation efforts of the Baka is rather countered by other stakeholders, the participation of Baka in conservation and the fate of the forest and forest-based resources in the study area is precarious as the respondents indicated. Table 5 shows that all the respondents said that loss of access to forest and forest-based resources, together with loss of tenure rights, were impacting negatively on conservation.

It was observed during field work that due to loss of access rights to the forest and forest-based resources, many Baka have currently become opportunistic exploiters of these resources. They have steadily reduced respect for harvesting norms as one wants to grasp as much as possible when he or she has the least opportunity. Unlike when they were still in the forest, all what Baka men and women get in the wild is for both commercial and household consumption purposes (Ntolo Regine, Eyinga Jacqueline, Zeh Ekomba Gaston and Obam Pierre, pers. comm.).

These interviewees were also of the view that in addition to what they gather in the wild, they have started cultivating the forest for both cash and food crops. Men cultivate cocoa farms whereas women cultivate cassava, maize and plantain farms for economic reasons, they noted. It was noticed during participant observation that the cocoa farms of the Baka were smaller in size than those of the Bantu. All these cocoa farms were observed to be cultivated inside the tropical forest without the trees being felled; instead, fruit trees were added in the farms (Plate 7).

The food crop farms, on the contrary, were observed to be much smaller in sizes than the cocoa farms and were cultivated using the slash-and-burn method of farming. Labor in the cocoa farms was almost entirely supplied by Baka men, field informants noted. In addition, the Baka decried the fact that

they were not having even traditional tenure rights over the pieces of land they cultivate. As informants expounded, each Baka family was under the control of a specific Bantu family and Baka farmlands were allocated by these Bantu families. Unfortunately when the value of such Baka pieces of land has been increased beyond a certain threshold, the Bantu become jealous and seize them, the informants intimated. This further confirms the loss of tenure by the Baka in their current settlement sites.

Plate 7. Agroforestry farming



Cocoa cultivation inside the forest in Minko'o in Djoum area. Photos by Enchaw G.B. 2011.

In the domain of environmental resilience, it was observed that the cocoa farms in the study area are typical of agroforestry-oriented farming system, which is one way of adapting economic activities to climate change. This shows that if the interest of indigenous peoples and local communities are incorporated into REDD Plus policies and programs, these peoples will participate effectively.

Despite Baka eviction from the forest, they still show proof of a better mastery of the forest and its resources before, during and after the guided tour in the forest. Interviewees were of the view that this can partly be explained by their long stay in the forest and partly by seasonal commuting between the forest and their settlements sites. During the dry season or gathering period, the Baka spend most of their time in the forest, which is their primary habitat. This was particularly observed with women who are the main gatherers (Table 6).

Table 6. Daily chores of a Baka woman during different seasons

During low gathering and hunting season		During high gathering and hunting season	
Time	**Activity**	**Time**	**Activity**
6-7 am	Rises from bed	6 am-12 noon	Rises from bed
	Fetches water		Goes to gather peke and kôbô with children, 6 years old and above
	Sweeps the kitchen		Returns to mongulu hut
	Kindles the fire		Eats overnight food
	Warms water for the husband	12-5 pm	Goes to gather
	Cooks food		Saba
	Eats		Kok
7 am-12 noon	Goes to farm with children, 6 yrs old and above		Firewood
	Works on the farm		Fishes
12-2 pm	Gathers koko wild vegetable (eru)		Baths with children
	Fetches wood	5-7 pm	Returns to mongulu
	Returns from the farm		Warms water for the husband
	Cooks food		Makes children's bed
2-5 pm	Eats		Sleeps
	Fetches water		
	Bathess		
	Bathes the children		
	Warms water for the husband		
5-7 pm	Makes children's bed		
	Sleeps		

Source: Interviews with Ntolo Regine 2011.

Table 6 shows that Baka women, in particular, spend about half of their daytime in the forest during low gathering and hunting season, while during peak gathering and hunting

period, they are in the forest for months before returning to their resettlement sites. A WWF staff in Mambele opined that no matter where a Baka is found, no matter the office in which he is working in, he will always return to the forest during peak gathering and hunting season. This commuting habit of Baka often leads to a phenomenon of communities disappearing and reappearing along the road axes and confirms their semi-sedentary lifestyle. This attachment with the forest has enabled them to have a good mastery of the forest and its resources. In other Baka communities out of Djoum, the Baka have also demonstrated this mastery of the forest and its resources as observed by MINEF and GTZ in 1997.

Before the guided tour in the forest, they had enumerated a wide range of plants, mammals, birds, fish, insects, caterpillars, lianas and vines in the surrounding forest and environment that are used for various purposes (Table 7). It was observed in the field that most of what the Baka get from the forest is only gathered—implying that their forest exploitation methods are sustainable. They do not exert pressure on forest resources through the use of sophisticated equipment or weapons. The traps they used for hunting were observed to be so tender to the extent that any animal that fell on it and made the least effort would likely survive.

Table 6. Some forest resources identified by indigenous Baka

Identified resources				Common uses				
Type		Number indicated	Some important observed or indicated species in the forest	Food	Medicine	Economic	House building	Tourism/ Totemism
Plants	Trees	104	Moabi adjap	✓	✓	✓		
			Bubinga		✓	✓		
			Sapelli	✓	✓	✓		
			Bush mango (peke, payo, kama)	✓	✓	✓		
			Bush onion ngimba	✓	✓	✓		
			Iroko		✓	✓		✓
			Ebony		✓	✓		
			Baoba		✓	✓		✓
			Motokotoko (wild quinine)		✓			
	Tubers	5	Wild yam Saba	✓	✓			
			Keke	✓	✓			
			Ba	✓	✓			
			Koukou	✓	✓			
			Baloko	✓	✓			

Plants	Shrubs	23	Beka		✓				
			Ngata	✓	✓				
			Pkwangogo		✓			✓	
			Loo		✓			✓	
			Lingombe		✓			✓	
			Eru kôk	✓	✓	✓			
			Koussa (used for climbing to harvest honey/poki)		✓				
	Lianas	5	Kpomboo		✓			✓	
			Bo'o		✓			✓	
			Poua		✓			✓	
			Cane (Pkwoo)		✓	✓		✓	
	Herbs/Grasses	12	Ngala	✓	✓	✓		✓	
			Kale	✓	✓	✓			
			Mongola	✓	✓	✓			
	Wild mushrooms	6	Ground mushroom (Tolo)	✓	✓	✓			
			Dead trunk mushroom	✓	✓	✓			

Animals	Mammals	25	Elephants	✓	✓	✓		✓
			Buffaloes	✓	✓	✓		✓
			Gorillas	✓	✓	✓		✓
			Bongos	✓	✓	✓		✓
			Panthers	✓	✓	✓		✓
			Chimpanzees	✓	✓	✓		✓
			Monkeys	✓	✓	✓		✓
	Birds	12	African grey parrots	✓	✓	✓		✓
			Bats	✓	✓			✓
			Owls	✓	✓			✓
			Forest hogs	✓	✓			✓
			Kingfishers	✓	✓			✓
	Fish	8	Nbwahka si	✓	✓	✓		
			Mbanga si	✓	✓	✓		
			Mudfish (Mgboyo)	✓	✓	✓		✓
			Tilapia (Toko)	✓	✓	✓		
			Crabs (Kala)	✓	✓	✓		
			Prawns (Kangui)	✓	✓	✓		

Animals	Bees	4	Honey bee		✓	✓		
	Butterflies	47	Moth		✓	✓		
	Termites	2	Bandi	✓	✓	✓		
			Yebi	✓	✓	✓		
	Caterpillars	7	Boiyo-taku	✓	✓	✓		
			Kanga-mungete	✓	✓	✓		
			Husu-kuluka	✓	✓	✓		
			Kopobado kofoluka	✓	✓	✓		
			Nb'ulu	✓	✓	✓		
			Pokolo	✓	✓	✓		
	Snails	5	Apong	✓	✓			
			Ko'om	✓	✓			
	Snakes	10	Viper	✓	✓			✓
			Boa	✓	✓			✓
			Green Mamba	✓	✓			✓

Source: Ntolo Regine, Aboah Jeanettte, Akoumba Martin Paul, Chief Ekele Daniel, Eyinga Jacqueline, Zeh Ekomba Gaston, and Field work, August and September 2011.

All those who responded to the questionnaire were of the view that each Baka man set between 30 and 50 traps per hunting season, although WWF staff put the number at between 200 and 300. The argument of the WWF staff may not be tenable on grounds that from 2007 to 2011, they alleged to have loosened 4,700 traps in the forest for a population of above 2,000, Baka and Bantu inclusive. Even if just 10 out of that population were hunters, each will not have up 100 traps in the forest a year (Plate 8).

Plate 8. Baka hunting gears



From left: A Baka setting a trap in the forest around Minko'o; Traps loosened by WWF staff from the forest around Ngatto. Photos by Enchaw G.B. 2011.

During the guided tours, many of the plants, fruits, some birds, insects, snails, caterpillars, mushrooms, and a few mammals that they enumerated were identified by the Baka guides and confidence builders and were observed by the researcher. Other observations in the forest were related to exploitation of forest resources such as methods of harvesting medicinal, wild yams and vegetables, mushrooms, honey; gathering of caterpillars, bush mangoes; and methods of setting traps and capturing of some small animals and fishing. It was observed that Baka women fish mainly through the dam construction system (Plate 11), although they acknowledged fish poisoning with barks of trees such as sapelli and the fruits of a liana known as ewong.

Plate 11. Baka fishing



Dam fishing in the forest of Miatta by Baka. From left: A series of constructed fishing dams; Identification of species of fish caught (tilapia, mudfish, nbwahka, prawns and crabs) by Kôbô Eyinga Jacqueline. Photos by Enchaw G.B. 2011.

Such poisoning is not severe as the barks of trees and fruits are just enough to hypnotize the fish for a few hours, after which the fish that were not caught easily regain consciousness and continue with their normal life activities. In addition, Baka informants stated that they gather only what they need for a day. It was observed that Baka men used lianas to climb up very tall trees to harvest honey or woodbine. In the process, they used smoke from burning small sticks to hypnotize and weaken bees, which regain consciousness some hours later. Many of the harvesting and gathering techniques demonstrated were noticed to be environmentally friendly or sustainable.

Table 6 shows that the entire biodiversity serves as medicine to Baka indigenous peoples. The guides and confidence builders explained that even water, rocks and soil are used as medicine for the treatment of various ailments. In their opinion, it is the concoction that is prepared that matters. The table also shows that many of the large mammals that are protected by modern law serve as totems for the Baka and these animals are not killed or eaten by the clans or lineages that revere them. Totemism among the Baka is one important conservation strategy and it is common to find relics of moabi,

bubinga essingang, iroko trees, etc. around their settlements, which they say serve as homes to some totems.

After returning from the guided tour in the forest, the collaborators of Lelewal Foundation and confidence builders assisted the researcher to mobilize the Baka communities for a workshop. Each guided tour lasted for at most eight hours (7:00 am to 3:00 pm) and the workshops were scheduled to begin between 4:00 pm and 4.30 pm after the Baka have return from the forest or farms. The aim of the two workshops or enlarged FGDs was to produce traditional concept maps of their forests. The exercise was effectively done and many of the indigenous peoples in Minko'o Pkweke-mbungue and Kungu Miatta participated. At the end of each of the workshops, the participants drew a map of their forest and a forest use map (Plate 12).

It should be underscored here that the expression "their forest" is inappropriate according to the Baka indigenous peoples. When they were requested to draw a map of their forest, they argued strongly that the prevailing tenure relationships (modern and customary) do not give them rights over the distant or near forest. Even usufruct rights, which the law has granted local communities and indigenous peoples, Pygmies in general, do not enjoy them because territories in which they are settled are held under customary law by Bantu.

This is the reason for which Pygmies in general and Baka in particular could best be described as strangers in their land with only opportunistic exploitation rights over surrounding lands and forests. Some informants in Ando'o and Minko'o Pkweke-mbungue testified that any attempt to exercise rights over land and forest end up with flogging. This has rendered the Baka very timid and has negatively affected their social integration and poverty levels.

By their nature, the Baka do not amass wealth and that is why their poverty levels were still unbelievably high. They exploit the most important economic forest resources such as elephants on behalf of Bantu and sport hunters and for the interest of the latter. A Bantu traditional ruler in Moloundou alleged that sport hunters and urban poachers use the Baka

as guides because of their knowledge of the forest and forest resources. The informant affirmed that a Baka could tell with precision, the direction and position of an elephant just by placing his hand on the footprint of the animal. Through interviews, it was gathered that the Baka were so sensitive to heat and when they place their hands on the footprints of an elephant, depending on the heat emitted, they could easily estimate how far the elephant was from the spot in which they were.

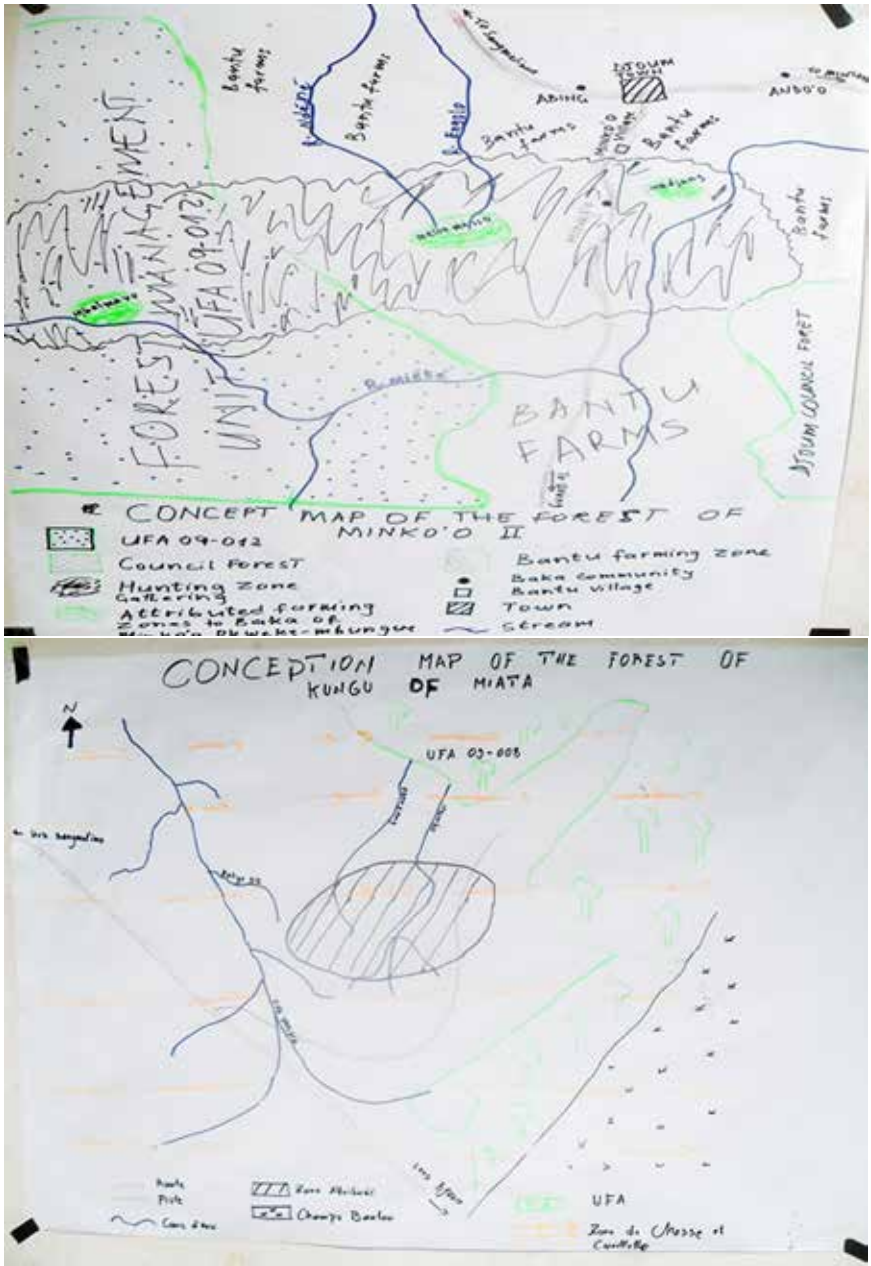
The Cultural Practices of a Baka Woman and Environmental Resilience

The quest for cultural revival among elderly Baka women or kôbô instigated them to adopt viable climate change mitigation strategies, which are in consonance with the aspirations of REDD Plus policies and programs. During an interview with a kôbô in her farm near Minko'o village, the informant expounded on the socio-cultural importance of nbwahka fish to the indigenous Baka or Pygmy woman in south Cameroon and how global warming has affected the sources of ingredients for their traditional rites, thereby breaching their cultural practices.[16]

The informant elucidated that nbwahka is a species of fish that was usually used as the main ingredient in performing traditional rites aimed at initiating young girls upon maturity into the Yeyi cult, which was a fundamental stage of Baka womanhood. The initiation usually took place during the annual Libanji Festival in the forest and was performed by Baka traditional chiefs and elderly women on girls aged 15-23 years, the informant noted.

According to her, initiated young girls were usually induced with strong vocal cords that empowered them to invoke the spirits of the forest through incantation. This was rare moments during which the Baka woman communed with the ancestors as the young girls who were initiated with nbwahka were capable of singing and dancing to the rhythm and for the pleasure of Njengi,[17] the kôbô stressed. It is believed

Plate 12. Traditional concept maps of Baka



From top: Forest map of Minko'o; Forest use map of Miatta. Photos by Enchaw G.B. September 2011.

that whenever Njengi was pleased with the incantations of the young girls, it came out and showered blessings upon the land. As the Baka kôbô recounted, the disappearance of nbwahka was noticed when the queen mothers[18] were unable to catch the required size of the fish for the traditional rites in Nkonete village in 1997, and since then, no young girl has been initiated in Djoum and its environs, thus marking a breach of these traditional rites.

The informant further noted that nbwahka fish has not totally disappeared per se in the streams in the southeast forest zone of Cameroon. The elderly Baka woman held that nbwahka fish has never been under any human pressure, but that there is a combined effect of imposed sedentary lifestyle and a steady reduction in the volumes of the streams to which they have access. In her opinion, the streams in their new found settlement sites have drastically reduced in volume to the extent that they are unable to access large-size nbwahka for their traditional rites.

The kôbô opined that while as wanderers in the forest, they had access rights to the resources of all the rivers and streams therein. But once denied access to the rivers due to eco-centred conservation strategies, and recently their forceful movement to settle along main road axes following the creation of Lobeke, Nki and Boumba-Bek National Parks between 2001 and 2005, they could not get large-size nbwahka fish in their surrounding streams. As the kôbô said, only springs, streams and wetlands are in their new found settlement sites. The drying off of these springs and wetlands, coupled with a steady reduction in the volumes of the streams with time, has instigated all large-size nbwahka species of fish to follow the streams downward and escape into the big rivers found in the national parks, as well as the World Heritage Dja Reserve.

Access to the water bodies in the national parks is strictly prohibited by law. The informant intimated that using a small-size nbwahka fish for traditional initiation rites of young girls is a mockery to Njengi and such rites will bring damnation to the community. The kôbô lamented the fact that the cultural mainstreaming of the Pygmy woman has been compromised and that her social fabric has been permeated by iniquities.

The elderly woman, however, ascertained that all hopes of revamping the initiation of young Baka girls have not been lost following current revelation that they could restore the volumes of their springs, streams and wetlands by mitigating the effects of and adapting to climate change.

Two interviewees during separate interviews in the forest zone cluster shared the view that until 2007, the Baka women in southeast Cameroon believed that the reduction in the volumes of their springs, streams and wetlands, and the disappearance of large-size nbwahka fish in these water bodies were associated with the wrath of Komba (the Creator). In a similar dimension, 85 percent of the respondents were of the view that the disappearance of large-size nbwahka in their surrounding streams was not sudden but that it was progressive and the rate varied with the streams. The kôbô of Minko'o said that to the best of her knowledge, the last large-size nbwahka fish caught around Djoum was in Lele stream in 1996.

Informants, among whom was the kôbô of Minko'o interviewed in her farm in Minko'o village and the other, the kôbô of Meban (plate 9) interviewed in her home, attested that their belief as concerns the causes of the disappearance of large-size nbwahka in their surrounding streams started changing in 2007 when some young people came and interviewed some Baka people on their cultural evolution.

The informants affirmed that when those of them that were interviewed told the interviewers that their culture was dying out because Komba has decided to reduce the volumes of their streams and to take away large-size nbwahka, the interviewers made them understand that the reducing volumes of streams were instead an effect of climate change. As they affirmed, the interviewers further told them that such effects could be mitigated through the preservation and planting of trees (reforestation and agroforestry) and the best way to do it was to plant raffia palms in the areas where their streams take their rise (catchment areas).

"That was strange to us because tree planting had never been part of our livelihood, which until our settlement along the roads, was based on gathering and hunting," the kôbô of

Plate 9. The Kôbôs of Minko'o and Miatta



The elderly women of these communities were interviewed separately but on the same day. From left: The kôbô of Minko'o (Kôbô Regine Ntolo) interviewed in her farm close to Minko'o community; The kôbô of Miatta (Kôbô Eyinga Jacqueline who is also a traditional practitioner) interviewed in her home in Miatta community.

Minko'o stressed. The interviewers were reported to have, however, convinced some of them to believe in the ecological services of raffia palms. The informants acknowledged having been told that the raffia palms upon maturity were going to use their roots to bring up water, which could hopefully restore the volumes of the streams, and large-size nbwahka could find them habitable again.

The informants shared a common view in that it took them a long time to convince other Baka, particularly women, to adopt tree cultivation attitude. "The Baka are very resistant to change," a kôbô in Miatta noted. This assertion was also reiterated by other Baka during FGDs in Mfem and Minko'o when making allusion to social integration of the Baka.

Those who participated in the FGDs threw more light on the attachment of the Baka woman to her culture and how the quest for the preservation of her cultural values spurred her to become involved in the fight against climate change. The participants (Plate 10) explained that it was difficult for them to initiate any reforestation and agroforestry projects on their

own because they did not have tenure rights over the land around them and did not know how to go about it.

Plate 10. Members of FGDs



FGD participants in Mfem and Minko'o.

They acknowledged their lack of expert knowledge in tree domestication and their inability to get improved seedlings. Following those difficulties, the Baka community in Djoum as a whole, negotiated to be part of an association initially called Action de gestion durable des forêts (AGEFO). When they finally became integrated as members in 2007, the association was renamed Action de gestion durable des forêts en intégrant les populations Pygmies Baka (AGEFO-Baka).

Through this association, the Baka woman collaborated with World Agroforestry Centre (ICRAF) and Société Forestière Industrielle de la Doumé (SFID) and got technical and financial assistance for three years on the creation of nurseries. The nurseries were for the production of seedlings from seeds that could easily germinate such as raffia palms, gobo, bolongo, and bush mango peke, which they planted in parts of the non-permanent forest to which they have farms or in catchment areas in the case of raffia palms. They said that it was difficult for them to produce moabi seedlings but that they gathered those that have started germinating in the wild and take to their nurseries. The AGEFO-Baka project phased out in 2009, and by 2011, no seedlings could be found in the nursery near Abing (pers. obs.).

These women said that during their gathering periods, they take along seedlings of raffia palms, which they get from

CPF and SFID, and plant in the catchment areas of their streams in the forest. Their effort has, however, not yet started yielding fruits since the raffia palms were still too young. Some of them were even found to be dying due to lack of care. As they said, if at maturity the plants bring up the water as they were made to believe, then the volumes of their streams will increase and they could get large-size nbwahka fish again for their rites.

All the respondents in the forest cluster were of the view that the planting of trees by the Baka in south Cameroon is carried out by both men and women and it was a recent phenomenon in their community. They held that the choice of where to plant which tree by men and women depends on the services that the tree will provide to the particular sex. For instance, women mostly plant raffia palms in catchment areas to restore volumes of streams, while men plant them in wetlands for tapping of wine. Moabi and peke or bush mango (*Irvingia gabonensi*) are planted by both sexes for oil extraction from moabi seeds, sale, medicinal and ecological reasons. If tree planting and where to plant them is determined by the cultural interest of the different sexes, then climate change mitigation and adaptation strategies could well target the enhancement of such cultural values, rather than technical and regulatory solutions.

Threats to Sustainable Forest Management by Indigenous Baka

Threats to sustainable forest management by indigenous Baka can be perceived in two fronts, which are directly associated with their eviction from their ancestral lands and tenure. On the one hand, there are threats from aliens or non-natives of the area, such as exploiters of timber and subsoil resources and the staff of conservation NGOs. On the other hand, there are the local Bantu communities, administrative authorities who are also Bantu, and socio-economic drivers (Table 7). This simply means that there are both external and internal threats that hinder Baka Pygmies from effectively conserving the forest and its resources.

Table 7. Respondents' views on threats to sustainable forest bélé management by the Baka

			Factors negatively influencing forest management by Baka						
Cluster	Village	Resp.	Tenure/ conflicts	Desecration of sacred forests	Sport hunters/ poachers	Companies, conservators & Bantu	Modernism	Poverty & Low levels of education	Alcoholism
Northern cluster Sangmelima-Djoum	Abing	11	11	11	11	11	11	11	11
	Keka Abegue of Djouze	10	10	10	10	10	8	10	8
	Kungu of Miatta	12	12	12	12	12	7	12	7
	Wela of Melen Bulu	15	15	15	15	15	13	15	13
Southern cluster Djoum-Mintom	Ando'o	6	6	2	6	6	6	6	6
	Meban II	7	7	7	7	7	7	7	7
	Mfem II of Mfem	17	17	17	17	17	17	17	17
Western cluster Djoum-Oveng	Meyosobam	8	8	8	8	8	8	8	8
	Minko'o II of Minko'o	18	18	18	18	18	16	18	16
	Nkan	8	8	8	8	8	6	8	6
Total		112	112	110	112	112	99	112	99
%		100	100	98	100	100	88.4	100	88.4

Source: Field work 2011.

Loss of access to land, forest and forest-based resources was acknowledged by all the respondents to be the root cause of their inability to sustainably manage the forest. In their opinion, the prevailing tenure relationships (modern and customary) do not give them rights over the distant or near forest. As they said, modern law prevents them from managing their ancestral lands (permanent or protected forest) while Bantu customary law regards them as mere settlers with no customary tenure rights over the near forest (non-permanent forest), which they and other stakeholders such as logging and mining companies, foreign sport hunters and urban poachers scramble for.

These indigenous peoples corroborated their argument by saying that the permanent forest, which is made up of national parks, wildlife sanctuaries and reserves, is controlled by conservation NGOs such WWF, which has been declared persona non grata by indigenous peoples and local Bantus. Similarly, they held that the non-permanent forest has been carved out into forest management units (UFAs), such as forest concessions for timber exploitation, safari or synergetic hunting zones that are controlled by aliens and a few community forests, which have been acquired by the local Bantu communities in accordance with the provisions of the 1994 Forestry and Wildlife Law. The Baka in Djoum area were alleged by interviewees not to be part of the community forests under the aegis of the Bantu and were not owners of any as they were considered to be integral parts of the Bantu villages under which they have been subsumed. Based on these different classifications and ownership of forests, the Baka were observed to be actually divested of tenure and resources access rights.

Another dimension of the threats was related to the desecration and destruction of sacred forests created by the Baka immediately after they arrived in their current settlement sites. All the respondents in nine of the 10 Baka communities that were studied (98%) were unanimous that desecration and destruction of their sacred forests. Interviewees threw more light on this issue. In their opinion, the attachment of the Baka to their culture instigated them to carve out patches of forest

close to their resettlement sites in which they could revere Njengi and the other forest spirits. As they alleged, these sacred forests served their spiritual purposes until pressure from logging and mining companies, Bantu farmers, Djoum Council, and the Catholic Church commenced.

Sport hunters and urban poachers were alleged to enter these sacred forests when chasing their game without prior authorization from their custodians. This has influenced the younger generations of the Baka to have a different perception of the traditional belief system that had been effective in conserving the forest and its resources. This is the reason for which 88.4 percent of the respondents said that modernism is a threat to Baka traditional management of forest. Legal protection of these sacred forests could be a major step towards making the Baka participate in conserving the forest for carbon stocks and climate change mitigation.

Poverty, low levels of education and alcoholism were vices also identified by the respondents to militate against sustainable forest management by Baka indigenous peoples. The poverty situation of the Baka and their low levels of education were alleged to be exploited by urban poachers, who easily convince these indigenous peoples with a high mastery of the forest and its resources, to take them to forest compartments where they could kill protected wildlife. The situation has been compounded by the fact that the Baka have become deeply involved in alcohol consumption, particularly the sachet whiskies such as Fighter, Lion d'Or, King Arthur and Kitoko. Alien exploiters used this alcohol to flatter the Baka in order to achieve their objectives against conservation norms.

A combination of these internal and external threats has negatively influenced compliance of the community on established rules and social norms regarding forest management. The Baka have been so weakened politically, economically and socio-culturally to the extent that they are unable to check the threats to forest management.

All attempts by the state to enjoin the Baka and Bantu communities to dialogue for better co-existence, effective participation in forest, and forest-based resource management

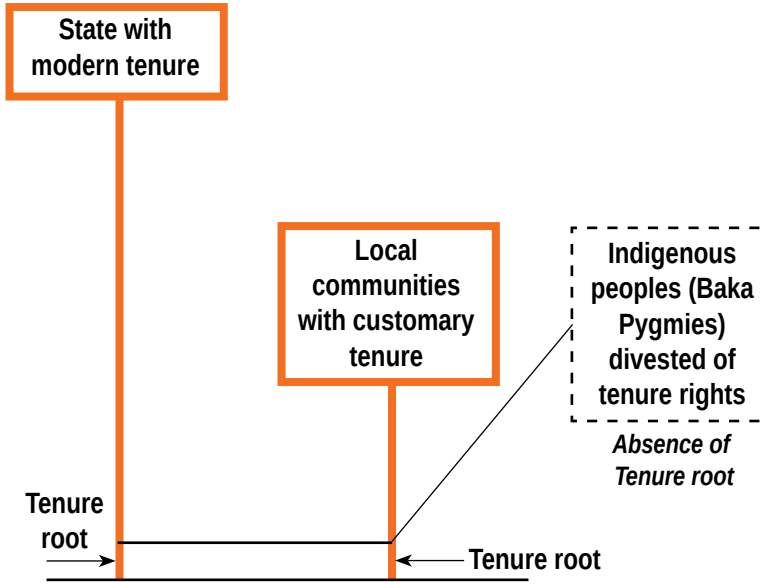
and equitable benefit from conservation have been futile. A people devoid of statutory and customary tenure rights in a dwelling place dominated numerically by those with historical rights over land and resources will seldom debate favorably with their host in matters of tenure, particularly in the context where forest tenure is the right defined in customary or statutory terms that determines who can hold and use forestlands and resources, for how long and under what conditions.

Inability to secure customary tenure rights of the Baka has undermined even their use rights in their new found settlement sites. Even if customary tenure rights of indigenous peoples were to be secured, women will at best end up only with usufruct rights as customary laws discriminate against them. It stands to reason, therefore, that conservation as a whole, and REDD Plus policies and programs, in particular, will be a farce without adequate tenure incentives to indigenous peoples and women.

Conclusion

Indigenous peoples have contributed much in preserving the forest massifs that are currently valued for their carbon sequestration role. But contemporary approaches to conservation have divested them of tenure (Fig. 5) and access rights, eschewed them from decision making, and dissuaded them from participating effectively in conservation programs that are proposed to them. Eviction of the Baka from the forest has estranged them in their current settlement sites as their communities are simply subsumed under Bantu villages and are not recognized by the administration as villages. Baka traditional authority is not also recognized and their perception of the forest has been distorted with no means to protect their sacred groves from being depleted and destroyed by external stakeholders, whereas such Njengi sacred forests constitute conservation hotspots and serve as an effective means through which the Baka enhanced forest carbon stocks.

Figure 5. Extirpation of Baka tenure



If REDD Plus policies and programs must be brought to fruition and impact positively on climate change mitigation and adaptation, the land tenure and access rights of indigenous peoples and women should be secured in law. Their communities should be recognized by the state as chiefdoms with authority over adequate territory that could enable them to use their indigenous knowledge for sustainable management of forest and forest-based resources. REDD Plus policies and programs should integrate a cultural dimension in order to multiply the incentives that could spur indigenous peoples and women to participate effectively. The adoption of raffia palm planting in catchment areas by the Baka women in the southeast of Cameroon as a means to mitigating the impact of climate change on their cultures seems to be a fundamental reason to making culture an integral part of conservation with the framework of REDD Plus policies and programs.

Endnotes

[1] Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

[2] The god of the forest.

[3] A forested mountain mass.

[4] The Cameroonian section of a forest domain or massif that is to be managed by three nations (Republic of Congo, Central African Republic and Cameroon).

[5] Action de gestion durable des forêts en intégrant les populations Pygmies Baka (AGEFO-Baka).

[6] Co-opérative Agroforesterie de Tri-National. A Cameroonian NGO coordinating Tridom in Cameroon.

[7] Comité de valorisation des ressources fauniques (structure locale de gestion des zones de chasse communautaire dans la région SE Cameroun).

[8] Deutsche Gesellschaft für Tecnische Zusammenarbeit (German Technical Cooperation).

[9] Projet d'appui au développement économique et social des Baka (Belgo-Cameroon Cooperation).

[10] Société Forestière Industrielle de la Doumé (SFID).

[11] Statistical Package for the Social Sciences.

[12] From first to third informants: Baka Chief of Minko'o Pkwekembungue, Baka Chief of Ando'o and Baka student in the Forestry School in Mbalmayo on holidays in Minko'o community.

[13] A type of fish used as the main ingredient in traditional rites aimed at initiating young girls upon maturity into the Yeyi cult.

[14] Zonation into core area, buffer zone and transitional zone with all of them being privileged places for man and nature (UNESCO 2003,16-17).

[15] Articles 20 (1), and 24 (1&2).

[16] Regine Ntolo, a field informant interviewed in a farm in Minko'o village.

[17] The god of the forest.

[18] Female custodians of the Baka tradition.

Bibliography

Abega, S. C. 1998. *Pygmies Baka: Le droit à la difference*. Yaounde, INADES Formation.

ACHPR. 2005. *Report of the African Commission's Working Group of Experts on Indigenous Populations/Communities*. Submitted in accordance with the "Resolution on the Rights of Indigenous Populations/Communities in Africa." Adopted by the African Commission on Human and Peoples' Rights at its 28th ordinary session. Copenhagen, Denmark: International Work Group for Indigenous Affairs.

Besong, J., J. Casey, W. Garber, and C. O' Reilly. 1995. "Mounts Kilum, Ijim and Kupe Mountain Forest Projects: Mid Term Review."

Cernea, M.M. 1994. *Sociology, Anthropology and Development*. An Annotated Bibliography of World Bank Publications 1975-1993. Washington D.C.: The World Bank.

Chambers, R. 1983. *Rural Development, Putting the Last First*. New York: John Wiley.

Enchaw, G.B. 2009. "An Assessment of Conservation Strategies in the Management of Natural Resources in Kilum/Ijim Forest Project area (North West Region of Cameroon)." Ph.D Thesis, University of Yaounde,Yaounde.

FAO. 1999. *Pluralism and sustainable forestry and development*. Rome: FAO.

Grazia Borrini- Feyerabend, F.M. Taghi, J.C. Nguinguir, and A.V. Ndangang. 2000. *Co-Management of Natural resources: Organising, Negotiating and Learning by Doing*. Heidelberg: IUCN.

Koffi, A. 2004. *The End of the Coercive Protected Area Policy in Northern Togo: Can a Local Management Scheme be an Alternative in Sustaining Common Wild Resources*? In PAPLRR-WEST Bulletin, 2002. The Newsletter of the West African Sub-Region of the Pan-African Programme on Land and Resource Right.

MINEF and GTZ. 1997. Programme de conservation de la biodiversité au Cameroun-composante sud-est: Rapport de l'étude socio-economique participative (selon la méthode MARP) à Dioula/sud-est Cameroun.

MINEF. 1998. *Manual of the Procedures for the Attribution, and Norms for the Management of Community Forests*. Yaounde: Editions CLE.

MINEF. 2003. *Agenda 2003:* Project d'Aménagement et de conservation de la Biodiversité de campo Ma'an. Yaoundé: MINEF.

MINFOF. 2005. Stratégie Nationale des Contrôles Forestiers et Fauniques au Cameroun.

Mope Simo, J. A. 2004. Land and Resource Rights in the Campo Ma'an National Park area, Cameroon. In M. Saruchera, ed. *Securing land and resource rights in Africa: Pan-African Perspectives*, PLAAS. Cape Town: Western Cape University Press.

Mvondo, S. A. and P. R. Oyono. 2004. An Assessment of Social Negotiation as a Tool of Local Management: A Case Study of the Dimako Council Forest, Cameroon. In *Scandinavian Journal of Forest Research*. http://www.journalsonline.tandf.co.uk.

Nembot, T. F. and Z. Tchanou. 2001. *La Gestion des Ecosystem Foréstiers du Cameroun à l'aube du 21e Siècle*. Yaoundé: IUCN. Vol.2.

Ngoufo, R. 1991. Conservation de la nature et développement rural dans le cadre du Projet Korup (Sud-Ouest Cameroun). In *Cameroon Geographical Review*. A semester publication edited by the Department of Geography, Faculty of Arts, Letters and Human Sciences. The university of Yaounde, Vol.x (2): 99-115.

Ngoufo, R. and M. Tsalefac. 2003. Atomisation de l'espace et gestion du patrimoine forestier au Cameroun: du pouvoir colonial à l'Etat moderne. In Cosaert, P. and F. Bart. eds. *Journée de la Géographie Tropicale. La Rochelle*. 13 et 14 Septembre 2001, 215-225.

Ngoufo, R. 2005. *Les Espaces Forestiers du Cameroun Méridional: Des Images et Discours aux Pratiques et Réalités*. Thèse d'Habilitation à Diriger des Recherches en Géographie, Université Michel Montaigne Bordeaux 3(III):264.

Nguiffo, S., P.E. Kenfack and N. Mballa. 2009. The incidence of historical and modern land/territorial laws on land or territorial rights of the local communities and autochtones of Cameroon. *In the territoria/Land rights and the people of the forests of Africa. Historical, jurisdicial and anthropological Perspectives*, N°2 Peoples Programme. Available at http://www.forestpeoples.org/documents/africa/cameroon_land_rights_study_09_fr.

Ngwasiri, C.N. 1999. "Land Tenure and Resource Access within some WWF/CPO conservation sites: An analysis of the legal context and traditional tenure systems. NHY Community."

Ngwasiri, C.N. 2001. European Legacy and Land Legislation in Cameroon. In Lambi and Eze eds. *Readings in Geography*. Bamenda: Unique Printers.

PAPLRR-WEST Bulletin. 2004. *The Newsletter of the West African Sub-Region of the Pan-African Programme on Land and Resource Righ*t.

Salami, A.T, J.B. Akarakiri and O. J. Ojo. 2000. The role of local communities in sustainable development: a case study of forest management in rural SW Nigeria. In Nkwi, N.P., ed. *The Anthropology of Africa: Challenges of the 21st Century*. Proceedings of the 9th Annual Conference of the Pan African Anthropological Association. New York:

Wenner-Gren Foundation.

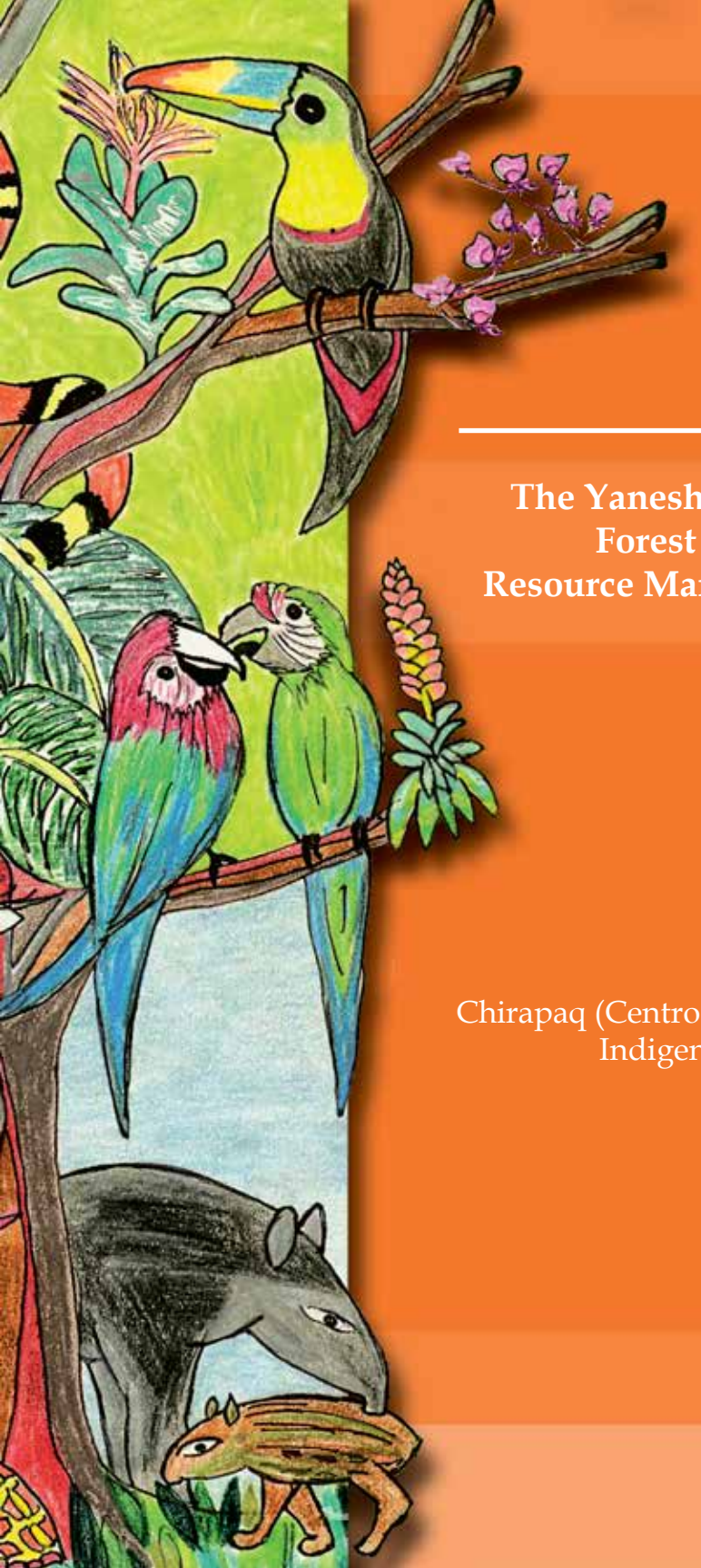
Saruchera, M., ed. *Securing land and resource rights in Africa: Pan-African Perspectives*, PLAAS, Cape Town: Western Cape University Press.

Springate-Baginski, O. and E. Wollenberg, eds. 2010. *REDD, forest governance and rural livelihoods: The emerging agenda*. Bogor: CIFOR.

Tauli-Corpuz, V., R. Cha0vez, E. Baldo-Soriano, H. Magata, C. Golocan, M. V. Bugtong, L. Enkiwe-Abayao, and J. Cariño. 2009. *Guide on Climate Change and Indigenous Peoples*. Baguio City: Tebtebba Foundation. Second Edition.

Tchoumba, B. 2005. *Indigenous people and tribes and strategies of poverty reduction in Cameroon*. International Labour Organization. http://www.ilo.org/indigenous/Activitiesbyregion/Africa/Cameroon/lang--fr/index.htm.

UNESCO. 2003. *Biosphere reserves: Special places for people and nature*. Paris: UNESCO.



2

The Yanesha Peoples' Forest & Natural Resource Management[1]

By
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Introduction

This paper aims to illustrate the existing cultural relationship between the Yanesha people[2] and the forest, their governance systems for natural resource management and use, and to show how these two are essential for sustainable forest management and conservation.

Based on the information compiled and analyzed, recommendations were drawn up to encourage the recognition and reinforcement of traditional practices and forest governance systems in political processes aimed at mitigating and adapting to climate change, particularly the REDD Plus[3] mechanism.

Primary data were compiled in the Pampa Hermosa Sector, in the native community of Siete de Junio of the Yanesha people. This is a special case due to the fact that, with a view to safekeeping their territories for future generations, the community of Siete de Junio joined other communities to promote the creation of the Yanesha Communal Reserve (RCY), which was further ratified in the late 1970s by the Amuesha Congress.[4]

The RCY covers more than 30,000 hectares and is part of the National System of State-Protected Natural Areas of Peru (SINANPE). Over time, the RCY would lead to conflicts with neighboring communities because of errors in the demarcation of indigenous communities and the RCY. Furthermore, due to lack of information in some communities, the existence of RCY is hindering the appropriate exercise of their rights over territories and resources.

Additionally, two forest management systems coexist today that were originally conceived as a single unit: one for the RCY and another for the communities' forests. Today, the RCY is threatened by deforestation associated with migration, urban sprawl and illegal logging.

The Yanesha People and its Territorial Dynamism

Introduction to the Case Study and its Particularities

The Yanesha people are one of the approximately 60 Amazonian indigenous peoples living in Peru. Judging from their language and archeological findings, the Yanesha people is thought to have inhabited the Andes-Amazon central region for 3,000 years.

Today, the Yanesha are found in the Palcazu and Pachitea river basins in the Pasco region (Figure 1); however, this was

Figure 1. Political and geographical location of Palcazu district, Oxapampa, Pasco



not their historical territory. Between the 17th and 18th centuries, the Yanesha lived in a wide territory located halfway between the San Ramon (Junin region) and Pozuzo (Pasco region) districts.

Pressure on the Yanesha territory began in the 17th century when Franciscan orders penetrated the Amazonian mountains, founding missions around the Yanesha and Ashaninka settlements in an attempt to convert them to Christianity and turn them into subjects of the Spanish crown. In the following century, Juan Santos Atahualpa's[5] rebellion would block all access routes to the Yanesha, Ashaninka and Nomatsiguenga regions.

By the end of the 19th century, the state granted two million ha to Peruvian bond holders in order to cancel its foreign debt and get coffee production under way; furthermore, it granted land to Tarma landowners for single-crop agricultural production. Since then, the Yanesha and Ashaninka peoples have been subjected to invasion, land allotments and the increase in coffee plantations introduced by invading settlers. In the early 20th century, the state favored Austro-German migration into the region to make these "productive" lands through agriculture and livestock farming.

Leopoldo Krause, one of the first European immigrants, said: "They did not like the fact that white men would dare setting foot on their lands. They held an assembly in the Curaca's [the boss] hut. They howled, kicked the ground and waved their arrows, protested by claiming that, just as one monkey followed another, many white men would come after me to strip them of their chacras [small farms]. They deliberated in their language and finally decided I could settle there, though only along the right margin of the river."

Source: http://es.scribd.com/doc/25231884/Algo-de-Los-Yaneshas-OXA

Within the framework of agrarian reform of the 1960s, Law 15037 was passed with the objective of redistributing land and modernizing agriculture. However, the lands and forests traditionally inhabited by indigenous peoples as well as

those used for hunting, fishing and harvesting purposes were exempted.[6] The law allowed for the granting of ownership titles, even though no title was ever issued to that effect. This period was known for the most aggressive processes of settlement and occupation of indigenous lands ever.[7]

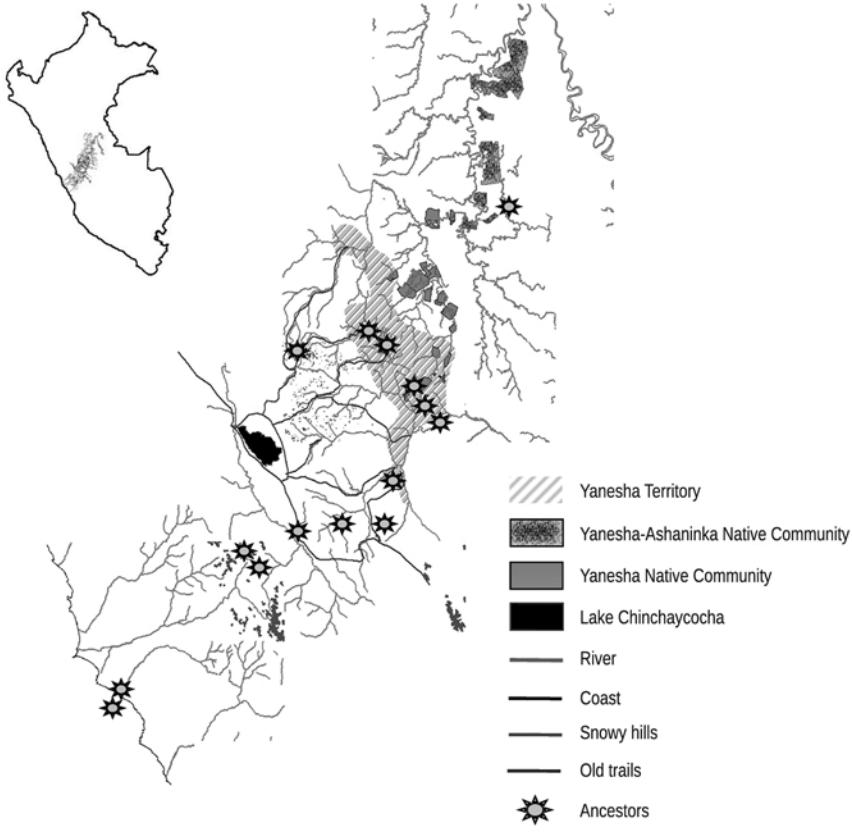
In 1974, the military administration of Juan Velasco Alvarado enacted Decree Law 20653, which granted native communities the status of legal persons as well as ownership rights over their lands, defined as inalienable, imprescriptible and unattachable. Four years later, Decree Law 22175 limited the right of communal ownership exclusively to those areas suitable for agriculture. Forest lands in the communal territory would be subject to the state's assignment of use.[8]

Regrettably, in many instances land demarcation and ownership of native communities was restricted to smaller territories where they had settled as a consequence of strong migration pressures dating back to more than 300 years ago. The Yanesha people were forced to leave their original territory and move to other lands further north and east (see Figure 2).

As a result of legal amendments, currently if indigenous communities wish to manage the collective forest to generate income for the community, they must submit a Forest Management Plan for state approval. On the other hand, the said amendments offer the possibility of creating Communal Reserves co-managed by indigenous peoples. In the late 1980s the Yanesha people was the first to advance and register a Communal Reserve on their behalf originally intended to keep their territories safe for future generations.

The significance of safekeeping territories was one of the first lessons learned by families who had migrated from communities such as Tsachopen or Yurinaki (near Villa Rica) to found new communities in the Palcazu river basin and had sponsored the creation of the Yanesha Communal Reserve. Historically, communities near Villa Rica faced pressures from the Christian missions that, among others, wanted them to convert to Christianity, demanded timber, and propagated cattle raising or farming that resulted in the degradation of

Figure 2. The Yanesha Territory from a Historical and Cultural Perspective: Traditionally and Legally Occupied Territories.



Source: Chase 2004.
From "Where our ancestors once tread: Amuesha territoriality and sacred landscape in the Andean amazon of central Perú."

lands, forests and natural resources. Due to these experiences, the new communities founded in the Palcazu river basin realized the importance of securing lands for their existence and well-being.

Subsequently, community ownership would aggravate land degradation. Communities were able to secure their property titles in areas that they have inhabited; however, this did not consider the fact that indigenous families usually mobilized in

large territories. They needed more land in order to ensure a good life for both families and forest, thus compounding land degradation. Additionally, ownership was granted to peasant communities and individual property owners while population growth consolidated in the City of Villa Rica.

Yanesha communities are found along the Palcazu river, between the Cordilleras Yanachaga Chemillen and San Matias San Carlos. During the 1980s, with the implementation of the Pichis Palcazu (PEPP) Special Project, these communities settled in three Protected Natural Areas (ANP): the Yanachaga-Chemillen National Park, the Yanesha Communal Reserve, and the San Matias-San Carlos Protection Forest.

PEPP sought to institutionalize a method that would ensure the sustainable management of resources based on the broader usability of valley soils. It provided for the creation of ANPs to help regulate basin water flow and protect the area's diversity for use by the state and the larger society, and especially the natives. It also envisaged multiple activities, including road construction, forest management or agroforestry (Laura 2007). The activities developed under PEPP had a significant impact on the region, their purpose being the same sought after with European migrations from Germany and Austria: to help these territories be a part of society at large, modernity, and market.[9] The El Sira Communal Reserve was created in 2001 bordering the Ashaninka, Asheninka, Yanesha, and Shipiba communities in the Pasco, Huanuco and Ucayali regions.

These territories, with mountain ranges of more than 3,000 m above mean sea level, are located at the mouth of the Pichis, Palcazu and Pozuzo rivers. The rich biodiversity of fauna and flora is the product of a complex geography and its humid, rainy weather. This ancient forest formation is found in Yanesha oral traditions. Mountains, rocks, lakes and woods are the trails trod by Yanesha grandparents amidst prayers, songs, drums and flutes on their way to heaven and thus eternity. Some actually made it and still linger in the sky as stars or groups of stars. Others did not and dwell in the green mountain chains of Yanachaga Chemillén and San Matías San Carlos.

Two indigenous organizations, the Federation of Yanesha Native Communities (Federación de Comunidades Nativas Yánesha or FECONAYA) and the Ashaninka Nationalities Association of the Pichis Valley (Asociación de Nacionalidades Asháninkas del Valle Pichis or ANAP), engaged in the international process aimed at designating the four natural protected areas as the Oxapampa Ashaninka Yanesha (RBOAY) Biosphere Reserve.[10] In June 2010, the International Coordinating Council of UNESCO's[11] Man and the Biosphere Programme declared the area a Biosphere Reserve.

The Community's Relationship to the Forest

Following the organizational processes of Amazonian indigenous peoples during the second half of the 20th century, the Amuesha Congress of the 1960s reorganized in 1981 as the Federation of Yanesha Native Communities. The Yanesha communities displaced to the Palcazu river basin, putting the historical lessons of their territorial uprooting to good use, called for the creation of a reserve for future Yanesha generations.

Apparently, this body of opinion matched the state's policies and vision regarding land use planning. The government considered the region suited for the creation of natural protected areas with a view to "regulate basin water flow and protect diversity in the area, for use by the state and society at large, particularly its native inhabitants."[12]

The Yanesha Communal Reserve (RCY) was the first of its kind to obtain state recognition, paving the way for indigenous peoples to create more reserves listed in Table 1.

Table 1. Indigenous Communal Reserves by date of creation

Indigenous Peoples	Communal Reserve	Legal Instrument	Date of Creation
Yanesha	Yanesha Communal Reserve	RS 0193-88-AG-DGFF	28.04.1988
Yanesha, Ashaninka, Asheninka and Shipibo	El Sira Communal Reserve	DS No. 037-2001-AG	23.06.2001
Harakmbut	Amarakaeri Communal Reserve	DS No. 031-2002-AG	11.05.2002
Machiguenga	Machiguenga Communal Reserve	DS No. 2003-2003-AG	15.01.2003
Ashaninka	Ashaninka Communal Reserve	DS No. 2003-2003-AG	15.01.2003
Indigenous peoples in voluntary isolation	Purus Communal Reserve	DS No. 040-2004-AG	20.11.2004
Aguaruna and Huambisa	Tuntanain Communal Reserve	DS No. 023-2007-AG	10.08.2007

Source: Ministry of the Environment. National Service of Natural Protected Areas. http://www.legislacionanp.org.pe. Accessed Sept. 28, 2010.

Under the national system of protected areas or SINANPE, the RCY was founded with a view to: preserve wildlife in the wooded area of the highlands in the Palcazu river basin on behalf of the bordering native communities of the Yanesha indigenous peoples; maintain and promote this people's cultural values; and support the renewable resource protection system in the Palcazu valley.[13]

As part of SINANPE and national heritage, communal reserves are areas under special management by the people whose main ancestral source of livelihood has been the RCY. All 10 Yanesha communities residing near the RCY elect the members to the Association for the Management of the Yanesha Communal Reserve (Asociación de Manejo de la Reserva Comunal Yánesha or AMARCY), whose mandate is recognized under the Natural Protected Areas Act. Thus, dialogue with the RCY management mainly falls on AMARCY and

the National Service of Natural Protected Areas (SERNANP)[14] operating in the region.

The former governance structure was never reinforced with the traditional practices used by the Yanesha people to arrange decision making, dialogue and representation. Thus, each community elects its leader, is divided into sectors, which in turn are led by a chairman elected by the sector inhabitants. Furthermore, support for enlisting AMARCY in FECONAYA as a technical body responsible for reinforcing indigenous forest management and generating income has wavered over the years.

ANPs increased their presence in the region throughout the 1980s due to their complex geography and climate. Three natural areas were added to the Yanesha Communal Reserve, i.e., the San Matias-San Carlos Protection Forest, the Yanachaga Chemillén National Park, and the El Sira Communal Reserve, making up what is known today as the Oxapampa Ashaninka Yanesha (RBOAY) Biosphere Reserve. Table 2 provides some data on the area.

Table 2. Yanesha Communities and Neighboring Protected Natural Areas

Protected Natural Area	Legal Instrument	Hectares a/	Date of Creation
Yanachaga – Chemillen National Park	DS No 068 – 86 – AG	122 000	29.08.1986
San Matias – San Carlos Protection Forest	RS No 0101 87 – AG/ DGFF	145 818	20.03.1987
Yanesha Communal Reserve	RS No 0193-88-AG-DGFF	34 745	28.04.1988
El Sira Communal Reserve	DS No 037 – 20016 – AG	616 413	22.06.2001

Source: *Hacia un Sistema de Monitoreo Ambiental Remoto Estandarizado para el SINANPE*.
a/ Size based on legal information. A different size is obtained using the Geographical Information System (GIS).

RBOAY boasts a diverse landscape. The Cordillera Yanachaga lies to the east of the Andes. The prevailing features are mountains covered with forests and divided by steep canyons, and a rugged terrain mainly characterized by rocky

wooded slopes ranging between 460 m and 3643 m above mean sea level.[15] The area is comprised of riparian forests, alluvial terraces, small and medium-sized hills, woods, bushes, grasses, palms, lianas, and prairies, as well as various herbs.

A number of studies on the Yanachaga-Chemillen National Park have identified certain species of commercial value such as the Ulcumano (*Prumnopytys harmsiana, Prumnopytys montana*), Ulcumano de puna (*Podocarpus oleifolius* and *Podocarpus magnifolius*), diablo fuerte (*Retrophyllum rospigliossi*), cedar (*Cedrela odorata*, *C. montana* and *C. lilloi*), walnut (*Juglans neotropica*), moena (*Aniba spp.*, *Endlicheria spp.*, *Ocotea spp.*), and others such as tulpay (*Clarisia racemosa*) and cumalas (*Virola*, *Otoba* and *Iriarthea* species, among others).[16]

The main threats to these systems are associated with the advance of agricultural frontiers, illegal logging, and crops such as coca leaf for illegal purpose. Furthermore, population growth also increases the demand for game and fish.[17]

The 10 legally-titled Yanesha communities are located in the geographical area formed by the Yanesha Communal Reserve and the San Matias-San Carlos Protection Forest (Table 3).

Table 3. General Information on Yanesha Communities Bordering the Yanesha Communal Reserve

Community	Hectares	Sectors	Population	Families	Legal Status
San Pedro de Pichanaz	6,750.83	3	355	76	Titled
Santa Rosa de Pichanaz	1,379.38	1	92	16	Titled
Loma Linda - Laguna	5,367.36	3	790	136	Titled
Shiringamazu	2,851.10	3	631	105	Titled
Alto Iscozacin	2,502.00	2	222	43	Titled
Siete de Junio	8,782.25a/	10	1424	251	Titled
Nueva Esperanza	4,587.33	3	301	63	Titled
Alto Lagarto	2,004.5	1	72	14	Titled

Source: *Atlas sobre Comunidades Nativas de la Selva Central del Perú.*
a/Hectares were estimated at 15,850.00 using a new measuring procedure.

Unlike the concepts applied by Westerners to explain regional geography based on geological and climatic factors, the peoples from the Central Jungle, e.g., Yanesha, Ashaninka, Asheninka, Matsiguenga, Nomatsiguenga, and Yine, have provided an explanation of their own, based on historical events staged by the gods in pre-social times. These lands and certain sites owe their shape and names to flights, battles, lessons and encounters that survive in Yanesha oral traditions. Fernando Santos Granero, who compiled the memories and stories of the elders, writes:

> *…they used to say that before Yompor Ror, today's solar deity, went up to heaven, humans, animals, plants, spirits, and gods shared this earth. They were immortal and lived together, not always peacefully, under human form. Yompor Rret, the first sun and wicked deity, enjoyed killing the Yanesha and illuminated the heavens over this land. Out of compassion for its creatures, Yompor Ror decided to depose him and become the new sun… As he was traveling across the valley of Eneñas, he learned that his sister/wife Yachor Coca, our Mother Coca, had cheated on him with Yompor Huar. Furious over her infidelity, Ror dismembered her body and scattered it in all directions. They say that the coca bushes now consumed by the Yanesha come from them. During the battle against Huar, the slopes at the foot of the valley of Eneñas burned, including the forest cover, giving way to vast grasslands. At this point Yompor Ror made his way towards the Valley of Choropampa. During his journey he encountered several powerful spirits and animals and plants in human form which he transformed into animals and evil spirits known today to the Yanesha. The rivers where these events took place were named later on after these first creatures.*[18]

Rock formations are also explained, resorting to the historical memory of Yanesha elders:

> *On his way to meet his sisters and brothers, Yompor Ror also encountered the Yanesha, who were punished for not exhibiting the moral virtues he had demanded of them. He*

transformed one man who would not share with him the chamuer[19] and the grilled fish he had caught downstream, and a band of travelers who refused to give him some colored feathers from the birds they had captured. Their figures may be seen today in the white cliffs that cut abruptly across the mountains. He also transformed two men who had selfishly brought downstream aquatic and terrestrial creatures that the god had created so that humans could survive on their own after his departure from the earth. Their crouching figures can be seen on the boulders located along the margins of the Chorobamba river.[20]

The Yanesha gods were not alone in shaping geography as we know it today. Matsiguenga tradition talks of Pareni's (the ancient female form of salt) expeditions. She married several times because her husbands had been transformed into armadillos, beetles, birds and bees. Widowed and left in charge of her daughter, she climbed to the Perene and Tambo rivers from the Urubamba river headed for the Yanesha and Ashaninka territories in search of the perfect place to raise her child. As they travelled across different territories, they left behind the salt springs, salt deposits and salty clay favored by macaws and parrots.

Years later, Smith (2004) continued to interview Yanesha elders in order to rescue the sacred nature of the landscape and the collective memory of sacred sites related to events and ancestors that survived in songs, chants and myths. Most geographical features, especially mountains, cliffs, large rocks and lakes, are the product of heroic and transformative actions performed by powerful ancestors:

Juan López Bautista (2010) states: 'Facing Pampa Hermosa emerge the guardian hills of Chipillo Chepen, known in Spanish as Cerro de La Cruz, and Cerro de La Hormiga. In the past nobody settled on those hills, but now mestizos and settlers live there on the guardian hills, not us the Yanesha. Two other hills, Poemarpe and Chomuelle, are visible from the community of Siete de Junio, and became in time part of the Communal Reserve, in Yanachaga Chemillen. The Tooros river divides these two guardian hills.'

The Case in relation to REDD Plus, Climate Change and Indigenous Peoples

The area comprising the Yanachaga-Chemillén National Park, the Yanesha Communal Reserve, the San Matías-San Carlos Protection Forest and its buffer zones is under constant pressures due to economic activities such as livestock farming, timber extraction, agriculture or urban sprawl (see Table 4). In the buffer zone, a little more than 20,000 ha of forests were subject to changes in land use in 1992-2002. Ten Yanesha communities live in the buffer zone.

Table 4. Land Use Changes in Protected Natural Areas

Area	1992 ha	2002 ha	% change
Yanachaga-Chemillén National Park	205	353	72.2
Yanesha Communal Reserve	418	474	13.3
San Matías-San Carlos Protection Forest	1,415	3,564	151.9
Oxapampa Sector Buffer Zone	61,318	82,807	35
Complementary Zone	139,205	163,447	17.4
Total	202,561	250,645	23.7

Source: *Hacia un Sistema de Monitoreo Ambiental Remoto Estandarizado para el SINANPE*.

Accessibility to the area is one of the key factors in population settlement and city growth. The road between Villa Rica-Iscozacín cuts across this area and provides Yanesha communities with access to the Yanesha Communal Reserve and the San Matías-San Carlos Protection Forest. The road follows the course of River Cacazu and is witness to deforestation.

The prevailing activity inside the Yanesha Communal Reserve is farming. The trend has been to settle between the Palcazu valley and the Yanachaga-Chemillén National Park, stretching across the entire communal reserve. A greater deforestation is observed in Oxapampa's buffer zone due to the spreading of urban areas and to livestock farming.

The 1990s witnessed a surge in commercial timber extraction (tornillo and cedar, among others). At present, this activity is gradually expanding towards protected areas.

In view of the data included in Tables 4 and 5, it is fair to say that the rates of land use change are lower for the Yanesha Communal Reserve. This is likely due to the protection that Yanesha communities and families (although marriages with Ashaninka and settlers do occur) offer once they settle and live in the said areas, and to the authority scheme implemented at community level headed by the chief or jefe of the community, sector leaders and women organizations, and at the provincial level through the actions of indigenous organizations such as FECONAYA.

Table 5. Land Use in the Yanesha Communal Reserve and the Buffer Zone

Area	1992 ha	2002 ha	% change
Yanesha Communal Reserve			
Agriculture	415	474	14.9
Livestock farming	3	0	
Oxapampa Sector Buffer Zone			
Agriculture	42,173	51,973	23.24
Livestock farming	8,590	11,733	36.60
Urban areas	125	225	79.58
Roads	629	629	0.00
High Andean pastures	882	1,001	13.59

Source: *Hacia un Sistema de Monitoreo Ambiental Remoto Estandarizado para el SINANPE*.

In the RCY changes in land use barely affected 60 ha. Conversely, in the buffer zone approximately 13,420 ha were subject to land use changes, mainly associated with agriculture (10,000 ha), livestock farming (3,000 ha), urban sprawl (200 ha), and pastures in the high Andes (220 ha)

Preventive measures and sanctions imposed by government agencies have not succeeded in deterring illegal deforestation. AMARCY, the organization representing the Yanesha communities bordering the RCY, has also failed to respond to such concerns and demands for different reasons, including the fact that managed funds hinder any rapprochement with the communities. This scenario, combined with the second

reserve demarcation process and the use of more advanced technologies by communities, gave rise to conflicts in a number of communities where the technical process was perceived as an ill-intentioned political process aimed at limiting the territories of legally-recognized communities.

Today, communities are advocating several solutions to address the issue of deforestation, illegal settlements and agriculture in the RCY and are arranging roundtable discussions between invaders, communities, AMARCY, FECONAYA, and public authorities. They have also tried among other things to promote investment in sectors more susceptible of being colonized, and have supported the cleaning and occupation of boundaries between the communities and the RCY.

The designation by UNESCO of the four natural protected areas as Biosphere Reserve has raised forest awareness. In the past, municipal management did not take into account the potential and wealth of forests or the role that forests play in preserving biodiversity and the life of indigenous peoples in the region. The Pichis-Palcazu Special Project and NGOs such as Dris, Desco, Pronaturaleza, Missouri, or IBC have approached forest management in different ways, e.g., promoting the production of cocoa, coffee or annatto; building fish farms; drafting forest management plans; or studying regional flora and Yanesha culture.

The presence of a large wooded area in the Oxapampa Ashaninka Yanesha Biosphere Reserve combined with the actions of public institutions, NGOs and indigenous organizations provide the opportunity to improve management in the area. This is not only with a view to preserving forests, but also to raising the standard of living for families residing far away from the roads, who are best at protecting the forest from outsiders and controlling access to these sites. Thus, an action and dialogue framework for the above actors is essential to make sure that all contributions are accounted for, to solve past and present conflicts—in other words, to ensure equal participation for indigenous peoples in relation to all other actors, i.e., central and local government, and NGOS dedicated to conservation, research and promotion.

For example, the first phase of the "Reducing Emissions from Deforestation and Forest Degradation thru Protected Areas in the Amazon Region—MACC Central Jungle"[21] was implemented in the region between 2009 and 2012. Through participatory management of ANPs and their buffer zones and an integrated approach to conservation and development, the project seeks to eliminate greenhouse gas emissions and halt the loss of biodiversity derived from the accelerated deforestation processes taking place in the High Amazonia of Peru.

Since the designation as Biosphere Reserve, district governments with the support of certain NGOs have been looking for a legal entity to manage the Biosphere Reserve. The proposal faces opposition by indigenous organizations such as FECONAYA (Yanesha) and ANAP (Ashaninka), engaged from the very beginning in the process of obtaining UNESCO's recognition, as this proposal means that they would be left out of the area's management. At present, both organizations are immersed in a political process aimed at ensuring their participation in forest management and boosting their visibility as a valid and necessary actor in this process.

Furthermore, the impact of climate change is already being felt in the area. Several interviews and conversations with the Yanesha living in Pampa Hermosa Sector, community of Siete de Junio, reveal changes in climatic conditions. Thus, Ana Ballesteros, who has no clue about her own age, after the flooding of the Comparachimaz river, which affected several families in the area, tells us:

> *After the flood it turned very cold, so we had to wear sweaters. This year it got even colder. But we also felt the heat, and we sweat a lot while working, so it affects our eyes, it burns, the skin swells up after standing so long in the sun. The heat becomes unbearable from 11:00 am thru 3:00 in the afternoon. In the past, one would work from sunrise till dawn because the sun did not burn.*

Referring to crops, she says:

Wherever I grow my yuccas and plants, the sun will harm them. I have felt the aftermath of the Comparachimaz river flooding. It took away my sweet potatoes, corn, yucca. We never saw the river coming out that way. With the heat the plague (called "tac") strikes harder, cuts the yucca, prevents it from growing, and what are we going to eat?…This plant stopped growing.

She also told us:

After the flood the rain almost ceased being constant; and due to the constant summers the streams disappeared. The fact that streams are drying up, that there is no water, might be signalling, as the Bible says, the second coming of God. We must walk half an hour to obtain water provisions. We no longer have the means to carry water—I borrow a bucket from my neighbor to bring water from the river. And I go two or three times down to the river and spend the water very carefully, with great sadness. Due to the summer and after the flood, the stones cover the places where carachamas live. We can no longer eat fish, there are few fish left to eat; we only eat the smaller fish and have to wait for them to grow big.

Finally she told us:

We do not quite understand why this warming is taking place, but we keep working as usual. I feel sad for the sun heating up; when I was young the heat was different. What will happen to my grandchildren in the future? I am worried about my grandchildren. In the past we lived happy and safe, but now my grandchildren, maybe due to the sun warming up, will witness disobedience. The times have changed. Things used to be different before.

Alfonso Ballesteros, leader of the Pampa Hermosa Sector in the year 2010, similarly pointed out some impacts associated with climate change. He told us:

The river is lukewarm, as if contained inside a flask, and one can see it slowly drying up. When we work we like freshening up, going down to the river; but we cannot freshen up now because the water is lukewarm. The river is running dry, not even my boots get wet. The heat is not what it used to be, the sun has ceased to act normal, the sun burns, you tire yourself out faster.

Referring to the crops he stated:

This year the river took away plantains, yucca—we just recently rebuilt the yucal and will wait six or seven months. First it is cold, then it starts warming up, the plague of flies hit and prevented beans from growing, they just stopped growing.

The Case in Relation to Forests

Indigenous Peoples: Vision and Classification of Forests, their Meaning and Management

Grandpa Francisco Cruz explains that upon his arrival in Pampa Hermosa the mountains were everywhere, there were not too many folks living in this community. Many families now residing in Pampa Hermosa originally migrated from the Oxapampa district in search of land to settle.

Pedro López was among the first settlers in the area. He was a teacher. Back when he arrived, the sun shone bright, but not as much as today, and the rain was abundant, accompanied by thunder. Today the sun burns as if it were going to rain, it burns a lot. He tells us that the Yanesha call dense forests “Tsachma” and the mountains “Puetsach.”

Forests may be classified according to their use:

a. Based on forest use, three areas may be distinguished: low, middle and high.

   The lower area, also termed pampa, is the part of the forest preferred by Yanesha families to settle and grow yucca, pituca (Elephant Ear), corn, rice, peanuts and beans, plantain, dale dale (*Calathea allquia*), pumpkin (zapallo), yam (sacha papa), peanuts, beans, sweet potato (camote), cane, watermelon. River beaches, also known as arenales (sandy areas), are favored because of their fertility. Greenhouses may be used, but no trees can be planted there. Although it is possible to plant vegetables, it is not rare to find cabbage, carrots or tomatoes.

   Fruit trees such as cocona and pijuayo are frequent in this area. Other trees such as annattos or pineapples grow in all three areas.

   The middle area is known as the forested area. Timber trees of commercial value such as shiringa, higuería or bully tree (balata) are found in the area. There are other non-commercial species, such as oropel or palmiche. Palmiche leaves are used for roof thatch. Fruit trees may also be found here, e.g., Moriche palm (aguaje) and Coroba palm (ungurabe) trees.

   The higher area is designated for the management of commercial trees such as tornillo and cedar, among others. A few small pampas are found here where bread products may be grown. The area is also suited for cattle raising.

   Shiringales are swamp areas with all kinds of wood and wetlands (aguajales). Shiringales are yellow and taste sugary, sweet, rich in nutrients and is safe to drink. The stream is white. They filter river water and seepage. Shiringales are fed from the highlands, are small in extension, and are not suited for agriculture.

b. Based on intervention level, the forest is classified as virgin or primary and secondary (purma).

In virgin forests, woodlands are left intact and used as reserves. These reserves are usually managed at three levels: by families, community sectors, and communities. Most Yanesha families own between 15 and 40 ha; a small part is allocated to different uses and purposes, e.g., for children or grandchildren, for forest management, for maintaining biodiversity and medicinal plants, as bird hunting grounds. This can be seen as a family management of the forest.

There are other types of management of primary forest. Pampa Hermosa Sector has an 800-ha reserve, and because of its rugged geography, this cannot be designated for agricultural purposes. The people have decided to respect what the territory says and not to practice agriculture or cattle raising. In community meetings, decisions are also made on the lands that new families can inhabit. The sector cleans the frontiers between the sector and the Natural Protected Area and respects the primary forest. Each family manages their agricultural land and their forest.

On the other hand, the AMARCY manages the Yanesha Communal Reserve, together with the National Service of Protected Natural Areas. Both types of management are under collective management, but the former reflects self-governance while the latter is a collaborative effort between communities and the state.

In both types, there is collective management and cannot be inherited.

In the words of an elderly lady, Ana Ballesteros:

> *I also have a preserved area, my husband is already old and unfit to work there. I keep my woodland virgin so that my grandson may work that land some day. I preserve my little woods so when the fruit season arrives I may go pigeon hunting.*

The purma, on the other hand, is the intervened forest, usually for the purpose of growing crops. Agriculture in the area is based on shifting cultivation (quema-tumba-roza): first, one must identify a plot of land of approximately one ha, known as cuadra; next, vegetation is cut down, left to dry and finally burnt. Weeds are removed before planting (in most cases, of yucca plant). One cuadra can feed an entire family for less than a year, or around 7-9 months.

Forest Wealth and Uses

Since the time they settled in the highlands, the forest became the main source of livelihood for the Yanesha people. In addition to farming, hunting, food gathering, fishing, and developing a series of techniques to facilitate their daily household chores, the forest is also the place where stories, chants, dances and music identify the origin of Yanesha society and its relation to celestial and terrestrial gods and other spirits.

Forest wealth is diverse—it covers cultural and spiritual dimensions, production, food, dress, housing, and medicines. The forest is also the space where children learn, entertain themselves and play, while they practice and become well-versed in values such as reciprocity, work or fraternity.

The forest is used, among other things, for agricultural purposes, usually once or twice a year. Yucca, the basic food, may be grown all year round, even though some families will rather plant in the summer, as rain decreases during this season. Corn, another popular food, is planted between March and June and may be harvested three times, just like rice. Corn and yucca can be planted in one hectare each to ensure a full-year supply per family. From time to time families will put the area to rest in order to engage in parboiling, frying and roasting yucca or to prepare masato (drink made from fermented maize or rice), chapo (beverage made of sweet plantains) and other, more elaborate drinks.

Other families also raise livestock in two to three ha and use it as a source of income to pay for medical emergencies or

significant expenses, i.e., when school materials and uniforms must be purchased for boys and girls before the beginning of the school year. For these families, cattle represents savings.

Yanesha families do not grow for the sake of growing. They build temporary chacras or small farms and let the soil rest from four to five years. By the end of the resting period, purmas will have recovered and be ready for new crops or maintenance work. Once the 7-year cycle has been completed, the process begins anew. This tradition has been preserved since ancestral times.

Other resources used by the Yanesha people are listed in detail below:

- Among the birds, they mention partridge (shiringuero and negro), Paujil (known as fluepo or huepo), dusky-legged Guan, parakeet, loro fino, Ara macaw, pigeon, Andean cock-of-the-rock, and other birds with Yanesha names such as pucacunga, caraco, puellarem, panguana, purutuguanco, shungururu, gallinazo;
- Among the fish, they name the black prochilodus (sabalo), pacu, doncella, chupadora or boquichico, sheb (croaker), tamarro or quimpich (carachamas), and lisa,[22] hardhead, basslet (merito), catfish (bagre), eel. Crustaceans include crabs, snails, asana, tsop, huasaco (fasaco), muento;
- Mammals include the mañorr (red brocket), sajino (collared peccary), misho or cutpe (agoutis), squirrel, quirquincho (armadillo), huangana (white-lipped peccary), yap or majaz (spotted paca), sachavaca (South American tapir), ronsoco (capybara), giant otter (river wolf). Among the monkeys we find black, coto mono (red howler monkey), cusna, pygmy marmoset (mono de bolsillo), martiz (mono chico is more common);
- Forestry species include the lupuna (*Ceiba pentandra*), tornillo, zapote, quinaquina (quinine), capirona tree, white bolaina tree, huayruro tree, higuerilla (castor oil plant), almond tree, palo veneno (*Naucleopsis naga*), palo gavilán, palo Alberto, palo peruano (Peru balsam), palo misho (*Perebea xanthochyma Kars*), balata tree, chonta quiro tree (*Diplotropis martiusii*), tacho,

and caimitillo (Satin leaf). Other forest species with Yanesha names are: moerell, shetorarem and shihuahua. Some plant species found in this forest are ojo de llama (cowitch), chillusque, achira (canna), and pacayilla;

- Fruit trees include ungurabe, cocona, aguaje (Moriche palm), Pijuayo palm tree, Yarina palm tree, caimito (abiu), guayaba (guava tree), pan de árbol (bread fruit tree), cherimoya de monte, yellow and purple granadilla (passion fruit), pama redonda and pama chica, cacao de monte (provision tree), anona (sugar-apple tree), lemon tree, mamey tree, achotillo (rambutan), guanabana de monte (mountain soursop), and anoniña. Other fruits with Yanesha names include manañ, pasem, cocllom or pama, moronquem or red-colored but large pama. Other fruits include plantain (long, island, calvito, purple, apple, dwarf), watermelon, papaya, pineapple;
- The dense bejucos (climbing woody vines) bear several fruits favored by forest animals. Others bear water. In the absence of water from other sources, chacra workers cut bejuco bark to quench their thirst. One of them, Cat's claw, has proven medicinal uses. Some bejucos contain water and are cut down to obtain water while establishing boundaries, as this type of bejuco is found in woodlands and highlands;
- Food crops include yucca (vela, dwarf, dove, three months, six months), pituca (sandia, chancho, black), rice (callelón, carolina, long-grain rice, charapita), camote or sweet potato (yellow, purple, carrot, white), zapallo (pumpkin), sacha papa (yam), peanut, beans, panamito beans, corn, dale dale (*Calathea allquia*);
- Medicinal plants include Cat's claw, sangre de grado (dragon's blood), chuchuhuasi (*Maytenus krukovii*), corich (panca panca pepper, to heal wounds), copaiba (*Copaifera paupera*), clavahuasca or white clove (to prevent disease and painful deliveries), piri piri pepper (to ensure a smooth delivery, birth, to give birth to a son or daughter, to attract men or women), renaco (*Ficus trigona*), piri piri to forget, Yaresha leaves help you

forget, pusanga (to attract men or women). Leaves are also used to treat snake bites, whereas piri piri, lianas and bejucos are applied to insect bites. Additionally, there are vegetables used for prostate diseases, diabetes and tuberculosis.

A Day in the Life of a Yanesha Family

The family spends most of their time farming, hunting, fishing, food gathering, as well as maintaining good relationships with families from different sectors. Machetes are used for land clearing; while the men clean, women clear the weeds. When yucca is ripe, the woman will be responsible for the harvest unless she falls sick—in this case, the husband then takes her place. Several prayers to ensure productive yucca harvests still exists. A woman elder says she uses mampeare, an ovinki (or piri piri) and blows them on the yucca to protect it and to make sure it grows properly.

Fruit gathering may last a day; different fruits are collected, including pama chica and pama grande (grapes and avocado pears, respectively). There are also Moriche palms (aguaje), peach palms (pijuayo), coconut palms, cocona shrubs, ungurabe (tooroo), and silk-cotton trees (pacae).

Men usually go into the forest to hunt majaz (paca), kirkincho (armadillo), venison, sajino (collared peccary), and birds. It has become increasingly difficult to find these animals around the house; to obtain meat from the forest, people frequently go to the reserve.

The day starts early, at around 4:00 in the morning; work begins at 5:00 am so people can go rest early as well. Folks prefer to work fast and early so they can go freshen up down in the river and cook dinner. The routine is the same throughout the working week, Monday thru Friday, whereas Saturdays and Sundays are spent hunting animals (mitayar) and arranging visits (citar), i.e., the family will offer and share their masato (liquor) to guests during the weekend.

Women frequently use trees. A few years ago, an income generation proposal based on dyeing was put forward. Regrettably, it resulted in excessive bark extraction to obtain dye, and the trees perished. Fortunately, this experience was short-lived but left some impacts in the ecosystem. Now the initiatives related to the craft are done in consonance with activities that protect and recover this group of dye-producing trees. Women are in charge of producing dye, collecting huairuro beans and chaquira beads.

Mrs. Elia Crispin describes life in a Yanesha family in detail:

> *Here at home I raise chicken, wash, cook, make masato, grow vegetables, plant yucca, beans, corn, peanuts, rice, whatever grows here. We (her husband and herself) both chat and decide. He says this is a good year to grow cocoa, and I say OK. We must also grow rice, and I tell him I will help him sow. We speak in the same manner about yucca. I tell him there will be no yucca next year, or the yucca is about to be ripe, or is ready to collect, or we need to start a new chacra, this time to grow yucca. We also address the issue of peanuts; we talk it over as we must make sure that nothing is left out. Other folks grow different crops and some of us have none. So we must grow for ourselves and also to sell some; but above all we grow to eat.*
>
> *We plant different kinds of yucca: yucca 'vela' (candle) grows straight; dwarf yucca; yucca 'ramuda' has large branches; yucca 'tres meses' is ready to eat in just three months. I bring small plants from a different spot and plant them; I look for those with small leaves; I bring three or four plants given to me as presents. We all like yucca, no matter which kind.*
>
> *We also like pituca [Colocasia esculenta]. My husband likes pituca. There are several kinds too. There is an elongated kind, then there is pituca 'pon' because it grows round and when warmed it bursts open and makes a noise, 'pon.'*
>
> *There are also several peanut varieties—two kinds: the long ones are pretty elongated. They grow all year round; peanuts do not like water much. Beans do grow on certain months only. They are harvested in two, three months. There are different kinds: castilla, panamito, poroto. These are the species that grow here, and although there are several kinds, these are the most abundant ones.*
>
> *My husband's plot covers around 15 cuadras (hectares)—four cuadras will be used for pasture and 2.5 cuadras for farming; the rest will be left to the forest. We do not fell trees; if we did, what would we eat next year? You need to grow your yucca, so this side is left to the forest while you clear the land in order to plant yucca once again the following year. We cannot clear it all since I would have no more forest left; if we cleared all the land, we would have nothing left for the following year. This year we will use this side,*

the next we will go somewhere else. We decide where to grow each year near our home.

The forest is always an excellent source of animals. Even dogs go into the forest and make animals run away; this is why we do not let dogs go into the woods. We do not let anyone enter because, when they do, they kill my plants, my herbs, they go in and take whatever is familiar to them only. I tell them that everyone is barred from entering, because there are hunting traps there. It is just like a gun; you can press and set a trap. At meetings we warn everyone who owns land that notice must be given prior to entering another plot of land.

We obtain masato from yucca. We first extract the yucca, peel it and then put it in a pot, cook it, grind it, and sweeten it with camote (sweet potato). If we did not add camote, the mix would be bitter, ugly, and tasteless. My husband also makes masato; he helps me sometimes. It is a tedious task. We do not make masato on a daily basis. We treat guests to masato when they pay us a visit on Saturdays and Sundays.

My dad taught me to clear land. As a child, he would take me to the chacra, along with my mom, so you learn to remove weeds as a kid. Now my children go on their own. As children we were forced to farm, all dirty but learning at the same time. My son helps me grow; he takes his small knife with him. I tell him what to do, where to plant, where to clear; we chat. I explain why we won't clear the woods, we will next year, but first we must harvest the yucca. They play at home; they do not go into the woods. They are afraid to be stung by the picar isula (bullet ant), which is very painful.

Forest Benefits and Inter-Communal Relationships

The prevailing feeling in several sectors, such as Pampa Hermosa, is that they make a contribution to other areas, which are close to the highways, and thus have lost a large part of their forests. For instance, Mr. Juan López, a former Yanesha leader and a teacher, told us that in order to engage in crafts, other communities would come to obtain raw materials such as leaves and bark to dye cushmas (cotton robes) or

to collect seeds. In exchange, they would sell their animals, e.g., chicken, swine and cattle; and by keeping roads, trails and paths clean they would gain an access route. Such actions benefited everyone: those who demanded resources in the sector and those capable of supplying them. In the past, these people would repay the community by offering a pig—some kind of payment was required. This practice was abandoned and it would be nice to resume it, he says, as it benefits both the community board and the community members.

Remote sectors such as Pampa Hermosa also help to preserve biodiversity and medicinal plants. In the future, says Juan López, ecotourism could be promoted in the area, as there are plants that we are familiar with:

> *We know their common name, their Yanesha name, but not their scientific name. There are plants or species unknown to us, but we do know the medicinal uses of other species, and they are useful not only for the community but for the entire world, as is the case of Cat's claw. We, the Yanesha, have used Cat's claw for many years, but did not patent its name, and this is why they have stolen the name from us and many others have benefited from Cat's claw.*

Another way in which communities and sectors could promote conservation of forests and biodiversity would be to study medicinal plants and to recognize the intellectual property of indigenous peoples, their traditional users.

The inhabitants of remote sectors are generally aware of their role in keeping the forest alive, unlike other sectors which for a number of reasons have lost the ability to provide for the livelihood of Yanesha families. They also know they are different from the stockbreeders who transformed the forest into pastures. They know that their agricultural practices entail resting the land and going in circles, going back to the first sites, where they cleared the land in order to start a new chacra. They know they do not require large areas of land for farming, just whatever is needed to ensure food supply for the family and to share masato with guests and neighbors during the weekend.

Indigenous Actions for Forest Conservation

Indigenous peoples implement different measures aimed at forest conservation. As a way of preserving the woods, families engage in reforestation on their chacras or plots, tree planting, using the purma system for farming, or avoiding tree felling in primary forests. Furthermore, many families own small forest reserves to obtain materials needed to build houses or address any household needs, i.e., fruit, palms, small animals, streams, medicinal plants, etc.

In the Pampa Hermosa Sector several areas have been set aside for forest management. One is located near the Comparachimaz river and was originally intended to provide the communities with wood for a number of years; the other will be allocated in the future to the sector responsible for forest management under the new plan. Additionally, boundaries are being constantly cleared in order to protect the area from invaders, timber companies or outsiders who wish to use the sector's forests.

Furthermore, it is worth mentioning that according to Jesús Colina, Chairman (Cornesha) of FECONAYA, the Yanesha Communal Reserve was sponsored by the Amuesha Congress during the 1980s and was originally intended as an area to be passed on to future generations. This was seen as a means to avoid the hunger and displacement suffered in the past by Oxapampa families, who were forced to search for land to settle down and ended up in remote sectors high up along the Palcazu river basin.

Changes in Traditional Forest Management

The relationship of indigenous peoples (including the Yanesha) with forests is very different from the approach to forest management adopted by policies, programmes and projects related to tropical forest use. The concept of forest management taught at universities and high schools focuses on forest control to optimize production and address the needs of inhabitants and towns located far away from the tropical rainforest.

Before the arrival of Christian missions to the Central Jungle in the 17th century, the Yanesha people lived on a vast and fertile territory in migrant nuclear families living apart from each other. They practiced farming, fishing, hunting and food gathering depending on two marked seasons: the rainy and the dry season. These activities were conditioned by their religious and ceremonial nature, as described by Santos Granero:

> *The Amuesha[23] link the particular position of a star at a particular time of the year with the migratory habits of birds, the flowering and fructification of certain wild or domesticated trees, or the different stages of the biological cycle of wild animals. The highly systematic way in which all of these phenomena have been assembled demonstrates, firstly, that as the result of centuries of empirical observations—in which priests seem to have played an important role—the Amuesha have an extremely detailed knowledge of the natural processes that take place in their environment; and secondly, that have an integrated conception of their cosmos based on the premise that any event in any one sphere of reality (the realm of dreams included) is related to equivalent events in other spheres.[24]*

The beginning and end of agricultural activities was signaled by the readings of experts on the position of celestial bodies across the sky all year round. Combined with Yanesha sacred oral traditions, this fine astronomical knowledge was used to explain the social and geographical order of the world inhabited by the Yanesha people.

According to Yanesha oral traditions, when Yompor A'penerr ascended into heaven, he was followed by a few creatures. One of them was Yompor Pencoll, who played the 3-hole pipe (pencoll). He turned into the three extremely bright stars of Orion's Belt. Charem for Westerners is Canopus, the brightest star in the southern constellation of Carina. These two celestial bodies mark both the initial and the ending months of the dry season:

> *The Amuesha divide the year into two long periods: the dry and the rainy seasons, charo and huapo, respectively. The term for 'year' is char, which has the same root as that of the term for 'dry season.' For the Amuesha the core of the year is this latter season, when the most important productive activities take place, food is abundant, and people celebrate singing and dancing to the sound of the coshamñats[25] sacred music. The dry season in a broad sense coincides with what could be called the 'extended agricultural period,' i.e., a period that begins with the clearing of new gardens and ends with the last sowing. It opens by mid-February when Pencoll (Orion's belt) and Charem (Canopus), the dry 'season star,' can be seen in the zenith[26] at dusk. This announces that it is time to start cutting the undergrowth in order to open the new gardens. The dry season, in a broad sense, ends by mid-October when Pencoll and Charem can be seen in the zenith at dawn. By that time all of the year's sowing should be finished.[27]*

Chemuellem, known to Western science as Antares, is the bright red star in the constellation of Scorpio. Oncoy is the star cluster known as Pleiades. Both celestial bodies are associated with the divine and the wicked. Chemuellem is thought of as a benevolent star, while Oncoy[28] brings disease, rain, storms and thunder. The Yanesha people associated the movement of both celestial bodies in heaven with the "truly dry season." Santos-Granero found that during these months average rainfall is 162 mm per month, as measured by the Bocaso weather station:

> *The dry season (…) does not coincide with the 'true' dry season in strict sense. The latter is marked by Chemuellem's position in the zenith at dawn by the end of March coinciding with the vernal equinox, and by Oncoy's similar position around mid-September, two weeks before the autumn equinox.[29]*
>
> *In Amuesha symbolic terms, the red Antares appears as the 'dry star' par excellence, while the Pleiades appear as a 'wet constellation' associated with rain and storms. The opposition between Chemuellem and Oncoy also appears as an opposition*

> *between mat and shellmem, two of swallows. The mat swallows appear in the land of the Amuesha in April coinciding with Chemuellem's position in the zenith at dawn. They spend the whole of the dry season there and leave sometime in September after Oncoy is visible in the zenith at dawn. Shortly after, the shellmem swallows arrive announcing the 'true' rainy season. While the mat swallows build their nests in open spaces, the shellmem swallows build them in the forest and scrub. Thus, the former are associated with dryness, clear skies and open spaces, while the latter are associated with rain, cloudy skies and closed intricate spaces.*[30]

Through empirical observation, the Yanesha people were able to distinguish a dry season *sensu stricto* governed by Chemuellem and its implications for farming. During the first few days of July, both the red Antares and the sunrise signal the driest season and the highest temperatures in the year. Temperature in July can reach 29.6° C and rainfall between June and July barely amounts to 79 mm, whereas the monthly average for the remainder of the year is 103 mm. As Santos-Granero notes, "July—the month ruled by Chemuelem"—is the most appropriate month to ensure the successful pruning of the new clearing.[31]

> *Apart from the 'extended' and 'true' dry season, the Amuesha seem to recognize a shorter dry season or dry season in a narrow sense. This period is marked by Chemuellem's position in the zenith at dawn (end of March) and dusk (end of July), and is associated with dryness, heat and fire. These characteristics are expressed in its Amuesha name. In effect, the root chemuell also appears in the term chemuellerrem which designates the dried red hot peppers that the Amuesha burn in order to fend off evil beings. The Amuesha consider that no evil spirit can resist the pungent smoke produced by the burning of these hot peppers. The red and fiery Antares also shares this benevolent character.*[32]

The Yanesha people maintained the same relationship with forests even during the not always peaceful coexistence

with Quechuans and other Amazonian peoples located in the higher and lower central jungle. The establishment of missions in the Central Jungle brought about the first changes in settlement patterns, agricultural practices, together with health and nutrition issues for the indigenous population. Regarding the causes of the high infant mortality rates of 1715-1739, it was found that:

> *These included malnutrition among children and pregnant mothers due to the scarcity of food resources, which resulted from population concentration and disproportionate pressure over the jungle. Food scarcity was frequent in the missions in spite of the introduction of cattle and new crops by missionaries. Many a time, scarcity was due to the massive transfer of population from the so-called parcialidades (ethnolinguistic factions) to the missions without starting new chacras well in advance. (…) However, evidence suggests that food scarcity was mainly the result of significant demographic pressure over the land associated with the forced concentration of indigenous peoples, which led to the ecological degradation of the environment.*[33]

The advance of missions required military support and establishing a demographic frontier as well as Spanish plantations, made possible by trading products across the viceroyalty, e.g., coca leaves, sugar cane and tobacco. Similarly, small Andean farmers from Tarma and Jauja settled and started to grow sugarcane, coffee, coca, cocoa, and annatto.[34] The rebellion led by Juan Santos Atahuallpa and aided mostly by the Yanesha and Ashaninka peoples[35] not only rid the region of this process from 1742 to 1845, but also provided for the demographic and economic isolation needed to recover from the devastation caused by displacement and population concentration, epidemics and poor nutrition:

> *It should be noted that the jungle was not immune to the historical events taking place in the Andes during both pre-Hispanic and colonial times. The divide between one region and the other probably emerged during the second half of*

> *the 18th century with the expulsion of the Jesuits from the northern jungle, the disappearance of the Panatahua from the Upper Huallaga, and the victory of Juan Santos in the Central Jungle. The myths of jungle isolation and the great Amazonian void can be traced back to this time and have survived to our days.*[36]

The relative autonomy that inhabitants of the Central Jungle enjoyed during the Virreinato was followed by the renewed attempts of the young Republic of Peru[37] to colonize the "highlands" with Austro-German peoples. Between 1850 and 1920 the administration passed laws aimed at granting "freely available" lands to colonist families that settled in the regions known today as Junin and Pasco. The colonization process led by the Republic was characterized by the use of missions, military force and colonial companies that would ensure favorable conditions to increase domestic production access to international markets:

> *Coffee plantations led to great transformations in the region's production system—deep changes in the integration process with Andean regional and nationwide economies. Coffee production became one of the main pillars for settlement in the region in terms of market, society and infrastructure.*[38]

Affordable coffee prices during the 1950s and road construction helped consolidate new settlements as Andean migrants were lured by labor demand from coffee plantations. The first inhabitants of Villa Rica would later venture into the timber business. Shortly thereafter, the more fertile lands in the valleys were used for growing coca leaves, fruit trees, and sugarcane.

Both the Yanesha and the Ashaninka lost a sizeable portion of their territory during these decades as well as the ability to practice spaced out settlements across the valleys. Their main concern thus became ensuring land availability:

> *As late as 1970, at least 80% of these groups had no legal protection for their lands. (…) The Amuesha who found themselves living inside such a land claim had two options: either they were allowed to remain on the land, trapped into the debt-peonage service of the new owners; or they were forced to leave the land under threat of the police and local authorities who inevitably conspired with the colonialist.*[39]

> *In the late 1960s the Yanesha began to make collective claims to the land. In 1969, 24 new communities joined to form the first inter-communal organization of Amazonian indigenous peoples in Peru. The Amuesha Congress (…) was renamed in 1981 to Federation of Yanesha Native Communities (FECONAYA). Such claims were laid out in the Native Communities Act enacted by the military administration in 1974. Thus, the state recognized the existence of 29 communities and set forth the land titling process of native communities. As their territorial rights consolidated (…) indigenous peoples began to grow commercial crops and convert their own lands into pastures. In the process, the Yanesha people assimilated the ideology of the market system. Some Yanesha people learned to accumulate excess production and reinvest in cattle.*[40]

Such changes are visible in the communities closest to the more intensely colonized areas, i.e., the towns of Villa Rica and Oxapampa.

In fact, a large number of Yanesha families left these towns and moved to the middle Palcazu river basin in search of land to farm and live. These areas are home to the communities in the buffer zone of the Yanesha Communal Reserve, the Yanachaga-Chemillem National Park, and the San Matias-San Carlos Protection Forest. In 1981 these communities had 2,685 inhabitants; by the end of 1999, the population had reached 4,821, almost doubling its size in 18 years.

In the early 1980s democracy returned to Peru and the new administration decided to transform the central jungle into the main supply center for food and resources. To realize its development aspirations, the government advocated

technical cooperation and funded several "special projects" to promote road construction and Andean colonization.

The project was reviewed in light of the studies revealing that a sizeable portion of the area was not suited for intensive farming and that the project, as designed, would have a negative impact. Subsequently, the project funded by the United States Agency for International Development (USAID) and the Peruvian government integrated resource management on land use allocation and the titling of Yanesha communities prior to road construction.

The Pichis Palcazu Special Project or PEPP contained the following development components:[41]

- The creation of conservation areas,[42] e.g., the San Matias-San Carlos Protection Forest, the Yanachaga-Chemillem National Park, and the Yanesha Communal Reserve;
- The introduction of sustainable commercial agriculture, including perennial crops such as pijuayo and coffee, and of long-wool sheep in lieu of cattle as a source of income;
- The provision of medical assistance to communities;
- Forest management of highly diverse tropical forests.

The PEPP, currently almost at a stand still, has had uneven impact on the area. Thus, in 1986 the government titled the last four Yanesha communities in the high Palcazu river basin,[43] sponsored communal forestry cooperatives, and further promoted coffee production and livestock farming.

However, some people, like Mr. Pedro López from the community of Siete de Junio in the Pampa Hermosa Sector, have a different opinion on the Pichis-Palcazu Special Project:

> *They introduced tree felling to promote livestock farming, and called it silvipastoralism. They did not succeed in raising cattle or breeding the so-called Black Belly ram. In spite of their failed attempts, they managed to cut down many trees.*

Conversely, his thoughts on the territory are as follows:

> *These powerful changes on our territory, for instance, have dispossessed us, isolated us. I should be in Lima by now and own a plot of land as reparation, since our territory is now Peruvian. However, where have they taken us?*

He goes on to analyze the impact of the project on the Yanesha Communal Reserve:

> *We fought pretty hard here, and then the Pichis-Palcazu Project was implemented and they started to cut back on our territories... for this reason I turned to the United Nations to report what was happening. That's when they started to put an end to it all. We still fear what will come next, tomorrow; what will become of us, will this land become more populated? And in 50 years time, where will we go? We wanted to form our own autonomous territory as soon as possible.*
>
> *We wanted the state to support us or a congressman to enact laws on our behalf. This was our line of thought, but instead, they have taken away from us, treated us as they pleased, a square here, a triangle there...*
>
> *We created the Reserve before the government intervened. We had been wanting to do so much earlier; in the 1980s, we were demanding a large sector during Velasco's administration. We did not wish to fight them, but they have come to our own home. The issue now is that we have nowhere to go. We wanted to form our own nation to defend ourselves from all sides, Villa Rica, Chanchamayo. They all lived in the city, and now they are stuck.*

At present, traditional farming, hunting, food gathering and fishing practices have been adapted to the availability and access of families and communities to land and resources. Due to existing market access conditions, some chacras have introduced commercial crops such as coffee, rice, livestock or fruit trees. Even families with lower access to land and decent

access to the local market have resorted to artificial fertilizers, as it has become increasingly difficult to rest the land as tradition has it.

The case of the Eshcormes community[44] illustrates some of the strategies used by families to manage natural resources and practice agriculture in their 4-hectare plots for their own consumption or for sale:

> *Traditionally, native families had practiced a diversified agriculture, entered the market, and ended up embracing monoculture. Following the prevailing trend across the valley, they grew coffee, allocating a few areas to production for self-consumption. To start chacras they applied traditional slash-and-burn techniques, which result in the rapid loss and volatilization of organic matter. In the past, this was offset with shorter farming life cycles, and once the soil became barren, a different spot was chosen to start new chacras. The introduction of perennial crops brought land resting practices to an end, which is the reason why fertilizers have become popular in the past few years.*[45]

In spite of the difficult circumstances, conservation and consumption patterns have somehow been preserved:

> *The number of families that put their land to rest has dangerously dropped to 41.7%; barely 18.8% still keep virgin woodlands; and 8.3% use their land for raising cattle. Each family unit owns on average 4 hectares for crops including, in some cases, an average of 0.66 resting land, 0.4 virgin forest and 0.3 pastures.*[46]

In all of the above cases, virgin woodlands were preserved, owing to their location in steep areas, which provided protection against landslides as well as a source of energy, fruit and medicinal plants for families.

Although self-consumption of yucca and pituca does exist, these crops are not the main source of food and health. The needs for food, health, clothing and education are met

through the sale of commercial products such as coffee, yucca, corn and fruit. In these communities fishing and hunting are not common due to lack of diversity and to the fact that animals are not big and heavy.

Yanesha communities in the Oxapampa, Villa Rica and Palcazu districts fit the description above and have access to resources (forests, wild animals), in addition to practicing traditional farming:

> *The slash-and-burn system used by the Yanesha people is well suited for the high rainfall and ecological diversity characteristic of their environment. Their agriculture is based on three types of crops: some crops are grown near the river, where extremely fertile alluvial soils abound; beans, peanuts and corn are usually grown here. Other crops are planted in areas not liable to flooding, where more acidic soils prevail. The main crops here include plantain, corn, yucca and fruits, which are grown in three-year rotations with resting periods of 2-5 years. Other crops are grown on high terraces or hills. Soils are extremely acidic with a high concentration of aluminum. Few crops can grow here, e.g., rice and yucca during the first year and then yucca in the following two. The land is rested as long as 5-10 years or more.*[47]

Gram's description is supported today by Professor Juan López of the community Siete de Junio:

> *We do not grow for the sake of growing; we set up new chacras for a limited period of time and let purmas rest 4-5 years before growing again or just for maintenance purposes. Upon the completion of each 7-year cycle, you must go back where you started. We do not cut the trees down just for the sake of it; every community uses the same procedure. We maintain our ancestors' traditions.*

Access to agricultural markets is weak, on occasion non-existent, and in some cases supported by NGOs, especially when it comes to coffee, cocoa, or annatto. Due to its impact

on biodiversity conservation, production for self-consumption remains the main concern:

> *Crops for self-consumption take up on average 0.7 hectares and are characterized by a diverse range of edible and medicinal plants. Salick (1989) reports that the Yanesha people grow over 180 plant species, yucca being the main crop for self-consumption. The Yanesha will usually sell their excess produce. Some households grow products destined mainly for the market. These crops are less diversified and sometimes single crops are favored. In such cases, chacras of 1-3 hectares are used to grow mostly yucca, upland rice, and plantains.*[48]

Cattle raising does not play a major role in supplying meat. Instead, it serves as a contingency fund to cover emergencies, travel, and health or education expenses. Cattle and small animal breeding is the legacy left by the Pichis-Palcazu Special Project in the area. Conversely, fishing and hunting continue to provide essentially all protein requirements. Both activities are carried out mainly between May and November, once the rain has ceased and the rivers permitting:

> *PEPP's farming program supported the breeding of small animals such as ox-haired sheep, ducks, chicken and guinea pigs. Fish is a key ingredient in the diet. In recent years, fishing has felt the impact of the use of explosives, chemical products or large nets mainly by settlers and for commercial purposes. Hunting is a common practice among the Yanesha, although it is hindered in the most densely-populated towns due to the scarce existing wildlife, which is the result of environmental changes and excess extraction.*[49]

Wood extraction is still taking place in the area. Its origins can be traced back to the Protected Natural Areas (ANP) or to the native communities. In the former case, extraction is illegal; in the latter, the government requires a forest management plan if extraction is to be authorized. Additionally, communities may make arrangements to carry out this activity:

> *Generally speaking, communities establish areas destined for wood extraction. The Communal Assembly grants authorization to exploit these areas. Two extraction modalities are defined: at community level, profits revert back to the community and require Assembly approval; or on a case-by-case basis, whereby communal authorities must issue a permit to individuals, as long as extraction takes place only within the designated areas. Households must invest profits in home improvement, health, and education, among other things. Otherwise, the application will be denied and the wood may be confiscated by communal authorities.*[50]

Andean migration continues to cause the communities a great deal of concern. Some families settle in the highlands of the Yanesha Communal Reserve and the Yanachaga-Chemillem National Park. These families are known as invaders, since they cut down trees before building their houses and chacras, which increases the likelihood of huaycos (flash floods) on a permanent basis.

According to Professor López:

> *Nowadays we face a significant threat [of flash floods coming down] from the hills. They cut the trees down, their roots have rotten, and there has been a significant rise in flash floods. As the land has been removed, it slides down even with little rain.*

Climate change is yet another factor that has altered (and will continue to do so in the future) farming, gathering, hunting and fishing patterns. Professor López talks of the inability to grow on the pampas for fear of unexpected river flooding destroying the crops. In the worst-case scenario, flash floods could pose a threat not only to crops but also to the safety of families. Shortage of rainfall is also a source of concern. Professor López says that in 2011 the river was running very low, at its lowest level in more than 20 years, jeopardizing the reproductive cycle of fish that lay eggs during the months of October and November. Fish sought the streams but avoided the river.

The Role of Women in Forest and Natural Resource Management

Yanesha families, just as other indigenous peoples, depend on access to land and forests to first and foremost meet their food and housing needs by farming, hunting, food gathering and fishing. When colonization intensified, many Yanesha families left their places of origin as they could not keep growing traditional products due to lack of land or to soil degradation.

This section was based on the testimony of Mrs. Rosa Huancho, resident of the community of Siete de Junio, in the Pampa Hermosa Sector, who shared with us the story of how she came to live to the area closest to the Yanesha Communal Reserve:

> *I come from Yurinaki, and so does my husband. We have lived in Pampa Hermosa for 20 years. We were in Yurinaki and moved here because of my daughter Susana. We had no chacras there to plant what we needed. There was no more yucca, beans or rice to eat. Mestizos take it all. She had everything here, a very large chacra, and told me to come to her land, Siete de Junio, to plant. Why suffer, here you can plant whatever you desire. Back there I suffered because I had no land to farm, our pituca was not rendering, since the land was in poor shape. My son-in-law has brought us some. This is the reason why we are here, otherwise I would go somewhere else. I wanted to go somewhere where land was available to grow whatever is needed to feed the family, plant yucca, pituca, rice, corn. I arrived with my children, my husband; here they gave us a chacra...*

Elia Crispín tells a similar migration story. Her grandparents belonged to the native community Tsachopen but migrated to Siete de Junio, in the Castilla Sector. She is of mixed race—her mother belongs to the Yanesha people and her father is a mestizo. Her husband is also of mixed race and a native of Quillazu. They acquired land in the same sector. Owing to the fact that they are both of mixed race, they follow

traditional agricultural patterns (see Box: A Day in the Life of a Yanesha Family, p. 97).

Mrs. Rosa Huancho's parents are Yanesha, just like her husband Francisco's. She resides in the Pampa Hermosa Sector and has enough land to work and practice traditional farming:

> *I grow yucca, sacha papa and barbasco. We have a huge forest, of course. We start our chacra there every year. On a given year we start the chacra in one spot, the following year we move somewhere else to plant again and grow yucca, pituca; whatever we like. The land never ends. We keep working our woods, but we do so rotating, starting a chacra anew. This year we will start a 1-cuadra chacra, the next we will do the same somewhere else in our land. In the meantime, plants grow again there, and we wait approximately five years before farming again back where we started.*

Women's accumulated knowledge regarding farm management and crops is strongly related to their ability to recognize different kinds of land and which crops are better suited for each. This type of agricultural planning aims at securing and obtaining a diverse range of food products from the chacra, as described by Elia Crispín (see Box: A Day in the Life of a Yanesha Family, p. 97) and by Rosa Huancho:

> *The forest is divided into different heights. And the color of the earth also varies. It is reddish on top; the pampa is different. Here we grow potato, yucca, pineapple, barbasco, rice, corn, peanuts. Rice may also grow on top. Along the river banks we can grow watermelon, but we choose not to; there is only pasture there. We first obtain the seeds, sometimes switch, and clear the land. We plant in May, and three months later it is already growing. We harvest pituca using machetes, and we plant it in ditches. For example, here the land is flat, so we look for natural ditches in the woods, and we plant pituca there, anytime, as long as it is sunny. You may grow yucca all year round. Pituca likes water from stream margins. Pituca is*

just like yucca; you may leave it underground altogether. You may harvest anytime you like, you just need to extract it. It can be left one or two years under the ground, just like yucca.

Farm work is readily performed even though it is tough work in warm weather. This is what Rosa Huancho had to say about it:

I like planting—planting yucca, my own sweet potatoes, pituca, beans, peanuts. I also like growing plantain to make tacachito later, if I do not feel like eating pituca. Unlike peanuts and beans, yucca grows all year round. If you were to plant in October, you would obtain very little. If you grow in April, from May until June, in 3-months' time, you may harvest peanuts and beans. Panamito beans take 70 days; the castilla variety is the one I like best. At present we do not have bean seeds. I want to clear the land now. In May I start to worry, I would like to plant my peanuts before June. I will be collecting my coca and chewing and clearing the land, clearing the weeds prior to planting my beans. Between June and August we stop planting and wait for next year.

Family life between husband and wife is governed by values of equality and interdependency. Such values ensure that household and farm chores are smoothly carried out:

Domestic decisions in the domain of the nuclear family are made jointly by husband and wife. Because of the sharp division of labor along gender lines, men and women are completely dependent on each other. This does not mean that they are incapable (physically or otherwise) to perform the tasks characteristic of the opposite sex: I know of women who know how to hunt, and of men who know how to spin cotton. What is relevant here is the ideological conception that establishes that the female and male productive activities are equally necessary and interdependent for the survival and reproduction of the family unit.[51]

Thus, balance in the family is evidenced by the responsibilities assumed by man and woman as a commitment to one another. This is the reason why single or divorced relatives in the household bring imbalance in domestic work:

> *Although an extra man in a household represents one more hunter and thus more game meat, it also represents more work for the adult female members of the household who have to harvest and carry heavier loads of garden produce, cook more food, and make more manioc beer. Conversely, the addition of a woman in a household represents one more hand for agricultural tasks, but also a burden for the adult male members of the household who have to dedicate more time to hunting or fishing activities and, eventually, to the clearing of new gardens.*[52]

Decisions regarding what, how much, and where to grow are made jointly by the couple, as illustrated by Elia Crispin's account (see Box: A Day in the Life of a Yanesha Family, p. 97). Rosa Huancho tells us about how both she and her husband plan out and share farm work, how they complement each other:

> *My husband goes land clearing whenever needed. If the land looks sandy, I let him know: 'Francisco, we must clear this land, it is good for peanuts and sweet potato. This other land is good for yucca, plantain, pituca, not sweet potato, watermelon or peanuts. But next to the river it will grow, not here, no matter how clean and pretty they might look.'*
>
> *I like my forest; it provides us with yucca, plantain, not so much pituca—pituca is found in wetlands, I like that. But I have a large beach where I can grow peanuts, beans.*
>
> *Together with my husband, we decide what to grow. He tells me: 'I plant yucca, you plant pituca, we will both grow corn, beans, peanut, sweet potato, whatever grows here.' But we would like some outside help to grow vegetables such as tomatoes, parsley, coriander. Sometimes we need celery, leeks and carrots for our own use. Sadly we do not have access to*

these. We always grow yucca, plantain, pituca, watermelon, and when the seeds are good we get excellent watermelon. We have white, yellow, yellower and medium-yellow pituca. I personally like the way the yellow kind tastes, I do not know why. I roast it well and it resembles a small cookie, just like bread freshly baked in the oven. And it resembles mushy bread on soup.

The accounts of both ladies reveal that each family member assumes his or her responsibilities in such a way that every one contributes the product of their hard work for the family's well-being. This is what Santos-Granero observed during the 1980s and survives today in daily family practices:

Although a woman may nag her husband to go out hunting, or a man may complain to his wife about not having prepared manioc beer, neither can order the other to go hunting or prepare beer. Furthermore, as with the Piro of Urubamba river, the relationship between wife and husband can be seen as an exchange of services by which wives control the produce of their husband's productive activities while husbands have control over the produce of their wives' productive activities. Thus, the game or fish brought in by an Amuesha man is redistributed by his wife among their relativities, while the manioc beer prepared by an Amuesha women is disposed of by her husband, who invites whomever he wants among the members of the local settlement to celebrate with him.[53]

Elia Crispin told us how masato is made from yucca. She first collects the yucca, peels it, and cooks it in a pot, then she chews and sweetens the mix with camote in order to obtain a sugary, "tasty" drink. Sometimes her husband helps her with this tedious task. She does not make masato every single day but always on weekends, to treat visitors. Santos-Granero's words sum up and illustrate how husband and wife complement one another:

> *As meat is worth nothing without manioc, and manioc is worth nothing without meat, so is a man worthless without a wife and a woman worthless without a husband: such is the egalitarian nature of the economy of the sexes in Amuesa society.*[54]

Yanesha women are also in charge of storing dry meat to be consumed later while working on the farm or hunting in the woods. On this subject, Rosa says:

> *On my farm you will find capybaras (ronsocos) and pacaranas (macheteros). If I did not go they would eat the yucca. There are lowland pacas (majaz/spotted paca), mishos (Menticirrhus ophicephalus), collared peccaries (sajinos), and they all eat whatever grows on the farm. One cannot possibly hunt them all, there are always more. We take little by little. Even though I have majaz, if I see a misho, we will hunt it; I will jerk it, dry it during the working week and I save it so I won't need to go hunting during the rest of the week. We do not market as they do in the city. If my hunting dog catches an armadillo (quirkincho) and the following day hunts a misho, I will jerk it. I make my masato; I spent the entire day working, we have breakfast early and then at 5:00 am we eat again.*

Women also play a significant role in forest conservation and use, securing health and food by gathering fruit and insects:

> *The forest provides wood, [as well as] many medicines we use to heal ourselves. We would use medicinal plants when we choked—we had no health assistance then. We do not like Vicks VapoRub, [so] we use copaiba instead. Why would we want to get rid of these plants? This is why we keep them.*
>
> *In the woods you can find animals, medicinal plants. When you walk under the rain and the sun, you burn, you get a rash, and we apply that to heal. We also eat suri, which is a larger worm—but no other worms. The Umpá is white; we eat talluque too. We eat after cutting down pijuayo. My*

husband and my son do not eat, even though it is tasty. I collect shequiem in the month of October. Pijuayo, ungurabe grow unaided in the forest—you do not need to plant them, although you may do so if you please. We do not have bread fruit trees. I have very few fruit trees; I have lemon and lime trees.

Finally, Elia tells us that things have changed a lot in the Castilla Sector.

Today there is tourism, a park, a road. There are more houses, more people, more shops. In the lake you used to be able to find larger fish such as basslets (merito), asana and lizards. That is no longer the case since the flooding of the Omais river—that same river carried away the riverbank trees. In Castilla you will not find many animals like lowland pacas, basslets or armadillos. The river took everything away.

The above description depicts the way in which Yanesha women manage resources, the land and the Amazonian forest based on their specific circumstances, i.e., population growth, climate change, and their ancestral values regarding agriculture and married life.

Yanesha Governance Over the Community and Forests

Indigenous Laws, Institutions and Enforcement on Forest Use

The Yanesha manage their communities in accordance with certain environmental principles, egalitarianism in authority relations, and social values of equality, autonomy and reciprocity. Professor López illustrates the above as follows:

> *In accordance with the Yanesha system, the land, the rivers, we all hold hands, they are part of our culture. We should not inflict harm on rivers, as we would be just harming ourselves. We should not use so many chemicals on the soils. They might be good for production, but soils end up being depleted. Our traditional system is based deeply on environmentalist concepts: conservation, saving for the future.*

Each community organizes its own governance system based on the drafting and acceptance of norms, enforcement and prevention. Under this form of government, the Arcanchi, usually an elderly person, plays a relevant role in carrying out punishments; but before doing so he will recommend, advise and guide the individual about to be punished, and the community chief will authorize the punishment. The Arcanchi is elected by the communal assembly. Similarly, community sectors also have their own rules, statutes and authorities. Each sector designates its own Arcanchi who, with the authorization of the sector's leader, carries out all punishments.

Just as each sector and community names its leaders and bosses respectively, so do the 35 Yanesha communities elect their Cornesha. Each level of government has its own managing board with power to exercise jurisdiction over its territory and make decisions separately. Relations among sector leaders, community bosses and the Cornesha to all 35 communities are not hierarchical: quite the opposite, they all have the same authority. Furthermore, the way in which authorities exercise their power is not based on coercion, as this would undermine their mandate, but rather on the way that rules are enforced:

> *Among the Amuesha the language of authority is moderate, and although they have a term for 'orders' in western sense (yecheñets), more often than not these orders were phrased as 'invitations' (menqueñets) or the 'giving of permission' (llesens). This moderation of the language of authority by which summons appear as invitations, orders as the granting of permission to do something, and one and the other are expressed in beseeching manner should not lead us to believe (…) that the Amuesha politico-religious leaders lacked power and authority.*[55]

Communities and sectors have each their own regulations laid down in a statute. The authorities have a say in all issues concerning forests and resources. Some regulations are:

a. Dynamite fishing is prohibited;
b. Excess bird hunting is prohibited;
c. Each family must own a chacra of at least half a cuadra to ensure food supply for the entire year and avoid community conflicts;
d. The use of barbasco[56] is allowed for fishing. Polluting rivers with toxic substances derived from trees is prohibited. Tornillo[57] may not be carried down the river, as it pollutes and kills fish.

There are no hunting rules. Tree felling is allowed to start new chacras.

Other rules include:

a. Unfaithful partners regardless of gender are subject to corporal punishment (lashes and tangarana[58]);
b. Liars are punished by stuffing chili pepper (ají) in their mouth;
c. Thieves must return double the amount of whatever they stole;
d. Teachers who have inappropriate contact with students are expelled;
e. Warlocks who perform evil magic are not allowed;
f. Husbands who beat their wives are punished with lashing. Violence against children is not regulated.

The community is responsible for enforcing rules and punishments. If the culprit is an outsider, his or her hometown sector is requested to enforce the law, otherwise the sector concerned will carry out the punishment. Regulations provide for three types of punishments: first, reprimands; second, a 2- to 3-day confinement in prison; and thirdly, suspension from the community. Fines are also used, otherwise prison is ordered. Jail is a public place—the cell is very small, and prisoners can barely sit and stand up in it.

Certain traditional moral rules are not contained in the statutes. These include rules concerning work or the teaching of culture at home, and rules against lying, idleness, adultery

or tree felling to prevent animals and birds from running away.

Another widespread practice not reflected in the statutes is the preservation of woods at the mouth of rivers so that trees may filter the water along the banks, since their roots are capable of absorbing and retaining water. If the trees were cut down, the river would be at risk of drying up. It is well-known that cedar trees are good for water storage.

Indigenous Inventory of Forest Resources

Very few communities that are affiliated with FECONAYA have forest management plans with the aim to harvest timber in sustainably way for commercial and industrial purposes. Community forests are owned by the state and therefore, communities have the right over the forest only in cession in use. For this reason they have to submit a General Plan of Forest Management (GPFM) and an Annual Operating Plan (AOP), which includes an inventory of forest resources, to obtain legal permission to undertake such economic activities.

Unfortunately, due to the cost and the bureaucratic requirements needed for the completion of administrative procedures and the development of GPFM and AOP, communities find it difficult to accomplish these on their own. They have to frequently ally with NGOs or private companies.

Any breach of the provisions of the AOP and the GPFM will have economic consequences and corresponding penalties. These sanctions are handed down by the Agency for Supervision of Forest Resources and Wildlife (OSINFOR).

On the other hand, Yanesha families have deep knowledge of their forest resources: how many timber, fruit, handicrafts and medicinal plants they have. This record is ingrained in their minds, through their experiences in the lands and forests, and activities such as:

- Walking around the grounds that the community gave them;

- During these walks, they identify, among others, the timber trees that the family has, the medicinal plants, fruit and trees used for handicrafts. Leaves that are used for roofs are also recorded;
- The identification of species in the plot lasts between two and three days, depending on the extent of the plot.

Intergenerational Transfer of Forest Management Procedures

Families make sure that new generations learn how to use and manage forests and resources from an early age. This know-how is not limited to technical management issues but is a means to achieve autonomy and self-sufficiency, first as individuals, and later on as members of a family unit:

> *Among the Amuesha the impossibility of controlling or commanding the labor of others is associated with strong emphasis on personal autonomy. Not only do the Amuesha not give orders to anybody with respect to what they should or should not do, but they even avoid impinging upon an individual's autonomy through giving unasked for advice. Thus, if an individual says that she or he is able to do something, no matter how outrageous, dangerous or impracticable it may sound, nobody will attempt to hinder them in pursuing their aim. Even the socialization of children is carried out following this principle of respect for personal autonomy and is based on children's natural curiosity and initiative as the first step of the learning process, rather than leaving the initiative (and authority) in the teacher's hand.*[59]

This learning process begins at a tender age, when sons and daughters go farming with their parents. Rosa Huancho describes it as follows:

> *At least in the case of my mom, she did not say: let's go to work in a lady's house so you learn and you earn. My mom*

used to tell me: 'Rosa, you will sift the masato. Today we will be working late—do not believe we will come back early. God gave us work to do, both men and women must work late.'

Similarly, in their trips to the chakra, Elia Crispín teaches her small children how to clear and clean the land and plant (see Box: A Day in the Life of a Yanesha Family, p. 97). This teaching role is not restricted to women. Fathers also guide through words and actions. Here is the account of Alfonso Ballesteros on the subject:

I teach my children to grow the fruit they eat because now they are young, so someday when they will grow big they will know instead of looking for it in the forest, even if it is pacay.[60]

Purmas are there. Children learn about the traditional uses of forests—this is customary, this is tradition, culture, living from the forest. Kids must learn. Dads always teach their sons to hunt, fish and use the forest. So it is customary when you are young to fell trees over here; but once you have grown old, you may cut down the trees from the secondary forest.

Farm work is exacting and hard. Everyone puts some effort into it. Sharing is essential. The Yanesha people pass these values on to the new generations: sharing and redistributing production is central to avoiding inequalities among them:

The inequalities that may spring from differential degrees of expertise in the carrying out of productive activities are neutralized by the existence of a kinship system through which everybody is related to everybody else, and a kinship morality based on the principles of unrestricted generosity and generalized reciprocity. Thus, if for some reason a man and his wife have not cleared a new garden and in the following year they do not have enough staples to satisfy their family's need, they may resort to their respective parents or siblings to supply them with what they need. Similarly, there is a constant redistribution of game, fish and manioc beer between the households of closely related men and women, which prevents the ac-

cumulation of surplus resources, and ensures that everybody will have access to essential resources inspite of the hazards of productive activities.[61]

Sharing the products obtained from the forest and the farm would not be possible if men and women did not learn and master those household chores that help the family unit achieve autonomy in matters related to production, decision making and planning:

The economic egalitarianism guaranteed by constant redistribution and the impossibility of accumulation is reinforced by the conviction that nobody is entitled to control the economic activities of anybody else. Thus, in the productive domain the nuclear family stands as the main decision and work unit. Though close relatives may help each other in the clearing or cultivation of gardens or may jointly organize hunting or fishing trips, each nuclear family is supposed to be an autonomous and almost self-sufficient unit. This is true even in the case of recently married men who, due to the demands of bride service, live with their in laws. The nuclear family is the locus of all productive decisions: whether to clear or not a new garden, where to clear it, what to grow and in which proportions, when to go for hunting or fishing expedition, or how much manioc beer should be prepared. Nobody outside this unit has any power over its productive decisions: not even a father-in-law over a son-in-law while the latter is fulfilling his bride service period. Even when several nuclear families related to each other by kin or affinal ties reside together in the same house, each of them will have its own garden and, frequently, its own hearth.[62]

This set of techniques and values are passed down within the family and each member is raised as a Yanesha.

Conclusions

The first conclusion that can be drawn is that the Selva Central's geography is part of Yanesha cosmogony. The Selva Central was in no way a territory without rules, without history, oblivious to scientific and religious spiritual knowledge. The mountains, rivers and important rocks are not lifeless beings but rather places in which deities and demons live. Animals, plants and activities such as farming are also explained in the sacred historic memory of their own origin. Additionally, the Yanesha, Ashánika, Ashéninka, Matsiguenga and Nomatsiguenga peoples, which lived in this region, had the distinctive characteristic of having to maintain harmonious relationships with each other, their Andean neighbors and their neighbors from the lower valleys of the Amazon rivers. In this territory, the complex oral traditions of their own creation were recorded. It was also the space shared by enemies and, in order to maintain harmony, agreements for coexisting and sharing the territory were needed.

Another important conclusion to be drawn, is that before the arrival of evangelical missions around the 17th century, Yánesha religious leaders had very finely-tuned knowledge about the natural processes of their surroundings and established relationships between them so as to develop an integrated perception of how the cosmos worked. For example, they established a relationship between the position of the stars, the seasons and the biological cycles of animals, flowers and fruits. Evidently, these stars are part of Yánesha cosmology.

Unfortunately, historical and political changes in the centuries that followed impacted on indigenous demography and on the way the forests looked. As an independent republic, Peru was very far, and unfortunately still is, from understanding the Amazon as a comprehensive unit, which does not need to be "integrated" into modernity—into the economy—by extracting its resources to serve cities. The transfer of land to land owners and the promotion of Austro-German migration to expand livestock farming and cash crops, such as coffee and timber extraction, has charted the mismatch between public

policy, indigenous peoples and the sustainable development of the Amazon.

Although land titles for communal land guaranteed a physical space for Yánesha families to live on, another consequence of these spaces was that in some cases, these were much smaller than needed and pressure on resources multiplied. However, Yánesha life and existence does not only depend on physical space but rather on the world of knowledge, which they developed to interpret their existence and establish relationships in their surroundings, i.e., the body of knowledge which defines indigenous cultural identity.

Present Yánesha communities do not live in their original territory and those located in the district of Palcazú are flanked by Protected Natural Areas. This terrible situation has forced changes to occur in the relationship with the territory, such as fewer traditions related to Yánesha cosmology being practiced due to the death of their spiritual leaders. Despite this, the relationship with the forests has maintained the principles of harmony, protection, respect and use for future generations.

Nevertheless, the protection which communities give to the forests needs to be strengthened and become a part of a broader strategy for the conservation and sustainable use of the forests. This would counter the serious threats, resulting mainly from the expansion of the agricultural frontier, the illegal extraction of wood, illegally grown crops causing deforestation, population growth, and extending roads.

Government measures to counter illegal logging have still not produced the expected results. A set of more comprehensive government policies is needed for the conservation and sustainable use of the forests, taking careful consideration of the real and deep-rooted causes behind deforestation.

Regarding the role that women and men play in Yánesha families, we can conclude that complementary relationships can be seen more clearly in farming and the provision of food. However, this is not reflected in organizational and political spheres. Men take on their role of providing wild meat and women respond by taking on the responsibility of making masato, for example. Women take on a lot of responsibilities,

given that it is up to them to maintain diverse food crops, as well as manage and preserve forests to guarantee their families are healthy and have food.

Recommendations

- Researches should be carried out, which delves into the cultural aspects of the territory. Research should be expanded to include traditional knowledge, which now plays an important role in adaptation. In addition, knowledge related to observing the climate and its relationship with flora and fauna should be included.
- The content of these researches should be collected and disseminated as part of indigenous oral tradition so as to strengthen cultural identity while also supporting and broadening comprehensive knowledge about the forests between the stakeholders who play a role in them.
- The role, which communities have as stakeholders in conservation, should be studied in relation to other statutory schemes such as concessions, natural protected areas and small-scale farmer communities, among others.
- The drivers and people behind deforestation should be identified through studies and participative processes. Land use management processes should be promoted, as well as economic and environmental mapping, taking into account the results from studies about the cultural use of territories, agents of conservation and agents of deforestation.

Endnotes

[1] This case study is part of the project known as "Ensuring Rights Protection, Enhancing Effective Participation of and Securing Fair Benefits for Indigenous Peoples in REDD Plus Policies and Programmes."

[2] The number of indigenous peoples living in Peru is yet to be determined. The *Instituto Lingüístico de Verano* (Summer Institute of Linguistics, or ILV) estimates that there are 92 living Andean and Amazonian indigenous languages and 15 language families; the *Instituto Nacional de Estadística e Informática* (INEI) estimates Amazonian indigenous peoples at 60 and language families at 13; and the *Asociación Interétnica de Desarrollo de la Selva Peruana* (AIDESEP) estimates Amazonian indigenous peoples at 56 and language families at 17. The Yanesha people belongs to the Arawak language family.

[3] Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

[4] During the 1970s, the Yanesha people convened the Amuesha Congress. In the 1980s, the Congress was replaced by the Federation of Yanesha Native Communities. The word "Amuesha" was replaced by "Yanesha" when the Yanesha people realized that the former was a term coined by anthropologists, while the latter was the expression used to refer to them.

[5] A leader of an indigenous rebellion that occurred during the mid-18th century in Tarma and Jauja, both Andean jungle provinces, near what was then Spanish Peru.

[6] Smith, R. et al. 2004.

[7] Accessed on 28.02.2012 at http://www.legislacionambientalspda.org.pe/index.php?option=com_ content&view=article&id=319&Itemid=4193.

[8] Idem.

[9] INRENA, Frankfurt Zoological Society, The Nature Conservancy, UNALM. Instituto del Bien Común – IBC. *Hacia un sistema de monitoreo ambiental remoto estandarizado para el SINANPE. Estudio de caso 2004: Parques Nacionales Yanachaga Chemillen, Otishi, Reservas Comunales Yanesha, Asháninka y Machiguenga, Bosques de Proteccion San Matias – San Carlos, Pui Pui y Santuario Nacional Megantoni* 2005, 75.

[10] Biosphere reserves are areas defined on a per country basis and designated by UNESCO's Man and the Biosphere Programme to promote sustainable development based on the efforts of local communities and sciencists. These areas are supposed to develop and test on a local scale new approaches to sustainable development by reconciling the conservation of biological and cultural diversity with economic and

social development.

[11] UN Educational, Scientific and Cultural Organization.

[12] INRENA, Frankfurt Zoological Society, The Nature Conservancy, UNALM. Instituto del Bien Común – IBC. *Hacia un sistema de monitoreo ambiental remoto estandarizado para el SINANPE. Estudio de aso 2004: Parques Nacionales Yanachaga Chemillen, Otishi, Reservas Comunales Yanesha, Asháninka y Machiguenga, Bosques de Proteccion San Matias – San Carlos, Pui Pui y Santuario Nacional Megantoni* 2005, 75.

[13] INRENA, Frankfurt Zoological Society, The Nature Conservancy, UNALM. Instituto del Bien Común – IBC. *Hacia un sistema de monitoreo ambiental remoto estandarizado para el SINANPE. Estudio de aso 2004: Parques Nacionales Yanachaga Chemillen, Otishi, Reservas Comunales Yanesha, Asháninka y Machiguenga, Bosques de Proteccion San Matias – San Carlos, Pui Pui y Santuario Nacional Megantoni* 2005, 10.

[14] SERNANP is SINANPE's governing body. In its role as technical and regulatory authority, it works with regional and local governments and owners in other areas related to conservation.

[15] Laura 2007, 12.

[16] *Plan Maestro 2005 – 2009 del Parque Yanachaga Chemillén*. Accessed on 01.03.2012 at http://www.ibcperu.org/doc/isis/7822.pdf.

[17] INRENA, Frankfurt Zoological Society, The Nature Conservancy, UNALM. Instituto del Bien Común – IBC. *Hacia un sistema de monitoreo ambiental remoto estandarizado para el SINANPE. Estudio de aso 2004: Parques Nacionales Yanachaga Chemillen, Otishi, Reservas Comunales Yanesha, Asháninka y Machiguenga, Bosques de Proteccion San Matias – San Carlos, Pui Pui y Santuario Nacional Megantoni* 2005, 8.

[18] Santos Granero, F. *Arawakan Sacred Landscape. Emplaced Myths, place rituals, and the production or locality in western Amazonia,* 95.

[19] Chemuer is a dried bitter bindweed that is chewed together with coca leaves and lime to sweeten the mix.

[20] Santos Granero, F. *Arawakan Sacred Landscape. Emplaced Myths, place rituals, and the production or locality in western Amazonia,* 95.

[21] This is a project subscribed by KfW on behalf of the German government, the Ministry of Environment on behalf of the Peruvian government, and the Peruvian Trust Fund for National Parks and Protected Areas (Fondo de Promoción de las Áreas Naturales Protegidas, or PROFONANPE).

[22] Lisa includes a number of fish with no Spanish translation. This is not a species in itself but a group formed by several species.

[23] Amuesha was the term used by missionaries, settlers and scholars to identify the Yanesha people. During the organizational processes and the fight for land of the 1980s, the Yanesha claimed and spread further

their self-identification as Yanesha, as opposed to Amuesha, peoples. Concerning this issue, Professor Juan López from the Pampa Hermosa Sector, community Siete de Junio, told us: "The Instituto Lingüístico de Verano (ILV) had great impact on our communities, as they mastered our language. They even named us. They called us Amuesha, but we are not Amuesha; that makes no sense, that means nothing to us. We are Yanesha, which means 'Ourselves;' and not only that, it also stands in a broader sense for solidarity, comradeship."

[24] Santos-Granero 1992, 109.

[25] According to the myth, a woman whose husband had been murdered traveled to sanner, the land of the "murdered ones," in order to see her dead husband. From the "murdered ones" she and her children acquired the knowledge of the coshamñats celebration. They learnt the lyrics of several coshamñats sacred songs, and how to make the reed panpipes, which are the coshamñats musical instrument par excellence. They also learnt from them how to prepare manioc beer which, together with coca leaves, is in Amuesha society indispensable for the carrying out of any ritual activity. Once back on this earth the women prepared manioc beer and invited her neighbors to celebrate with her. The women and their children played, sang and danced to the four styles of coshamñats music. Even her husband's murderers were invited to join in.

[26] Zenith is the point on the celestial sphere directly above an observer, or the highest point in the sky reached by a celestial body.

[27] Santos-Granero 1992, 121.

[28] Apparently, Quechua oral tradition shares the Yanesha view on the evil nature of Oncoy. Quechuans also associate Onqoy with Pleiades and disease.

[29] Santos-Granero 1992, 121.

[30] Ibid., p. 122.

[31] Ibid., p. 123.

[32] Ibid.

[33] Santos-Granero 1987, 47.

[34] Mora Bernasconi 2007, 2.

[35] Some authors state that Juan Santos Atahuallpa was able to recruit other peoples such as the Nomatsiguenga from the high central jungle, or the Piro, Conibo and Shipibo peoples from the lower central jungle.

[36] Santos-Granero 1993, 134.

[37] The viceroyalty was the administrative political entity imposed by the Spanish crown to control the territories of Peru, Bolivia, Ecuador, Colombia, Chile, and Argentina during the 16th and 18th centuries. Peruvian independence from the Spanish crown was declared in 1821.

[38] Santos-Granero 1993, 134.

[39] Chase 1974, 27.

[40] Benavides and Pariona 1995, 3. Quoting Chase, R.

[41] Benavides and Pariona 1995, 11.

[42] Regrettably, the initial proposals advocating the protection of the Coordillera Yanachaga Chemillém as part of the Yanesha ancestral territory wavered. It was used as both hunting grounds and sacred site. In 1974-1977 anthropologists Varese and Chase and biologist Brack took part in these efforts.

[43] Benavides and Pariona 1995, 11.

[43] The Eshcormes community is located in the Yurinaki river basin, Perene district, Chanchamayo province, Department of Junin. Yanesha and Ashaninka families live in this community. The Perene district is home to 51 indigenous communities and 132 towns inhabited by Andean immigrants. Around 1889, two million hectares were granted to Peruvian and British bond holders to create the Peruvian Corporation Ltd. This company started by growing coffee and promoting Andean colonization across the Yurinaki river valley. Colonization by Andean migrants exceeded the company forces and was forced to divide their land. By then, the Yanesha and Ashaninka families had settled in border areas in their own territories.

[45] Huamán, M. 2003, 8.

[46] Ibid., p. 9.

[47] Benavides and Pariona 1995, 13. Quoting Gram.

[48] Benavides and Pariona 1995, 14. Quoting Salick.

[49] Benavides and Pariona 1995, 14.

[50] Ibid.

[51] Santos-Granero 1986, 124.

[52] Ibid., p. 125.

[53] Ibid.

[54] Ibid.

[55] A type of fish endemic in coastal bays of Ecuador and Peru.

[56] Santos-Granero 1986, 117.

[57] The name of several plants containing poisonous chemical used for fishing by indigenous peoples of the Americas.

[58] The tree called "tangarana" is used to punish people misbehaving. To apply the punishment, the person is tied to the tree and with flick applied to the tree to attract ants that bite the person. The person is left in this position for a few minutes.

[59] Santos-Granero 1986, 124.

[60] A fruit from a certain type of tree.

[61] Santos-Granero 1986, 122.

[62] Ibid., p. 123.

Bibliography

Benavides, M. and M. Pariona. 1995. "La cooperativa forestal yánesha y el sistema de manejo forestal comunitario en la Selva Central Peruana." Article presented during the seminar Forest Ecosystem in the Americas: Community – based Management and Sustainability, University of Wisconsin, Madison, November 1994 – January 1995.

Chase Smith, R. 1974. *The Amuesha People of Central Perú: Their struggle to survive*. Copenhague: IWGIA.

Huaman López, M. 2003. "Estrategias productivas y situación de los recursos naturales: Estudio de caso en familias yáneshas de la comunidad Eshcormes, Perené." In *desco*, 30.

INRENA (Instituto Nacional de Recursos Naturales). 2005. *Plan Maestro 2005 – 2009. Parque Nacional Yanachaga Chemillén*. INRENA.

Laura, C. 2007. "Informe Final de la Campaña de Educación para la Conservación de los Bosques del Parque Yanachaga Chemillén."

Mora Bernasconi, C. 2007. "La configuración del espacio regional de la selva central." In *Revista Quehacer*, 165: 49-57.

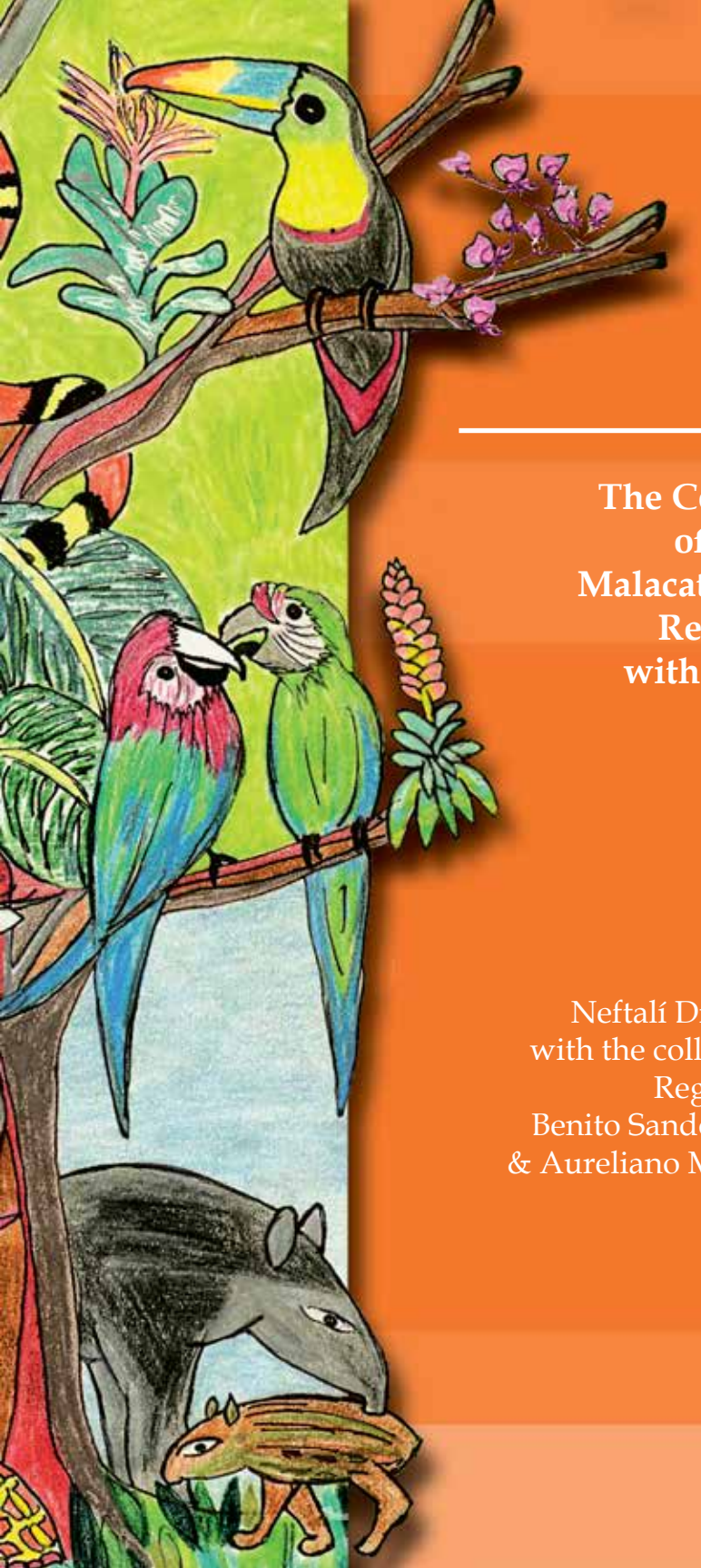
Santos-Granero, F. 1986."The Moral and Social Aspects of Equality amongst the Amuesha of Central Perú." In *Journal de la Société des Americanistes*, 72: 107-131.

Santos-Granero, F. 1993. "Anticolonialismo, mesianismo y utopia en la sublevación de Juan Santos Atahuallpa, siglo XVIII." In *Data. Revista del Instituto de Estudios Andinos y Amazónicos*, 4: 133-152.

Santos-Granero, F. 1992. "The Dry and the Wet: Astronomy, Agriculture and Ceremonial Life in Western Amazonia." In *Journal de la Société des Americanistes*, 78: 107-132.

Santos-Granero, F. 1987. "Epidemias y sublevaciones en el desarrollo demográfico de las misiones amuesha del Cerro de la Sal." En *Historia*, 11(1): 25-53.

Smith, R. et al. *2004. Mapping the past and the future: Geomatics and indigenous territories in the Peruvian amazon*. PhD diss. International Congress, Université Paris III Sorbonne Nouvelle.



3

The Community of Santiago, Malacatepec & its Relationship with the Forest

By
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Introduction

The Asamblea Mixe para el Desarrollo Sostenible A. C. (ASAM-DES) and Tebtebba (Indigenous People's International Center for Policy Research and Education) developed within the framework of the project[1] a case study entitled "The Community of Santiago Malacatepec and its Relationship with the Forest," researched in the Mixe region of the State of Oaxaca, Mexico, between December 2010 and May 2011.

The methodology to develop this work was based on interviews, meetings, literature research, and the systematization of the information collected on the field. The interviews took place in premises within the community, such as the municipality and the office of the Commission of Community Resources.

Conversations were held with key persons in the community, municipal authorities and the Commission of Community Resources, and also with other community members and the elders.

The case study had the following objectives:

- To analyze the internal social organization of Santiago Malacatepec to understand the healthy relationship they maintain, as indigenous peoples, with the natural resources around them, particularly with the forests, under a communal regime based on customary law (usos y costumbres);
- To analyze the relationship of collaboration and mutual trust existing among the main community bodies involved in the management and use of the natural resources in their territory;
- To determine the use and utilization of the forest and forest resources and their impacts.

It is important to mention that, at the very beginning, when the proposal to develop the case studies was presented to the community authorities and to the Commission of Community Resources, there was a certain resistance and fear to authorize it on the grounds that several years ago, persons from the National Forests Commission[2] arrived in the community with the same objective. The authorities at the time authorized the study. After some weeks elapsed, they realized that those persons of the National Forests Commission were developing a study with a view to declare their forests as a natural protected area (NPA), which would prevent the community members to use the resources within, such as timber, hunting, etc. When they were made aware of this, the community authorities expelled the researchers from the community and banned their entry.

Fortunately, when the contents and objectives of the present work were explained, and when they knew that it was supported by an indigenous non governmental organization, authorization was granted. This was on the condition that the result of the study should not be used to prevent the community to enjoy the resources within its territory, as they have

lived in this place for many years and have been able to live together with all the resources surrounding them.

Selection of the Community

The criteria to select the community were based on the existence of primary forests and the absence of the regional organization ASAM-DES in the community, with a view to extend the work on sustainable development with full respect for Mother Earth, within Mixe territory.

Santiago Malacatepec was selected. The community is one of the furthest from the headquarters of ASAM-DES (City of Oaxaca), a territory where forests are still abundant and where the impacts of human activity are minimal in comparison with the rest of the Mixe communities. Most of the agricultural production in this community is still for subsistence and only coffee is grown as a cash crop to obtain money to buy other basic commodities for food and clothing.

General Information

Eighty percent of the forest cover in Mexico is on the hands of community members (ejidatarios or comuneros), under the modalities of communities, ejidos,[3] forest associations, associated villages and others. They have in common, inefficient management of forest resources, as only the four percent of community social organizations manage the forest sustainably, enhancing its social, economic and environmental values.[4] This is due to a situation where, even if indigenous people have sustainably used their forests for centuries, they however do not have a sustainable management plan.

Forests have been inhabited by indigenous peoples for thousands of years, and they have produced minimal impacts as they utilized the resources soundly and sustainably.

It is uncommon for indigenous peoples to overexploit the resources they depend upon and they carefully practice crop

rotation and the sustainable collection of forest products and wild animals. In spite of this, indigenous peoples are often accused of destroying the forests within their territories.

The establishment of reserves or natural protected areas by the government has, very often, dispossessed traditional inhabitants of their lands. Their activities have been unfairly restricted, thus violating their rights, customs, beliefs and their whole culture as indigenous peoples.

Indigenous Peoples and Forests

Mexico is a country characterized by a great historical and cultural richness and a widely diverse population. These characteristics are, in good measure, provided by its indigenous population due to their history and their contrasting socio-economic situation.[5]

Indigenous populations are the custodians of the forests. They are therefore the first interested party in ensuring the conservation of the forests, which have been their home, an integral part of their culture, and the source of their development.

The diversity of forests resources in Mexico is both a result and a cause of the wide environmental and biological diversity of the country. There are, for instance, low forests in the dry tropics and lush high forests in the more humid tropical areas, as well as forests in temperate and cold areas in the heights of the mountains.

Mexico has a surface area of 139 million ha covered by natural land vegetation. Of the total surface covered by natural vegetation of forests, jungles and arid lands, 80 percent is social or communal property. A wide diversity of forests and jungles cover 65.5 million ha, the property of 8,928 ejidos and communities, which are mainly indigenous.[6]

Box 1. Surface of national territory covered by natural vegetation

Land covered by natural vegetation within national territory	139 million hectares
Percentage of total national surface covered by natural vegetation	73%
Percentage of social property of the surface covered by natural vegetation – forests, jungles and arid lands	80%
Forests and jungles	65.5 million ha
Ejidos and community owners of forests and jungles	8,928

These forests have a high biodiversity value, produce many economic benefits and are critical for the well-being of many communities and traditional knowledge holders.

Climate change has, and will continue to have, serious impacts on Mexican forest resources and the environmental services they provide. Changes in temperatures and rainfall and the frequency of extreme events will produce a higher rate of loss of habitats and will impact on the disappearance of species. This will affect ecosystem services such as the regulation of the water cycle and the stability of the forest carbon reservoirs.[7]

The pressure on the Mexican forests is visible in the deforestation and degradation rates. Even though rates have been reduced during the past decades, these are still qualitatively high. Within the international context, these processes of forest transformation, common to most of the developing countries, contribute to exacerbate the problem of climate change, contributing to nearly 20 percent of the emissions of greenhouse gases.[8]

General Profile of the Community

The Mixe Region

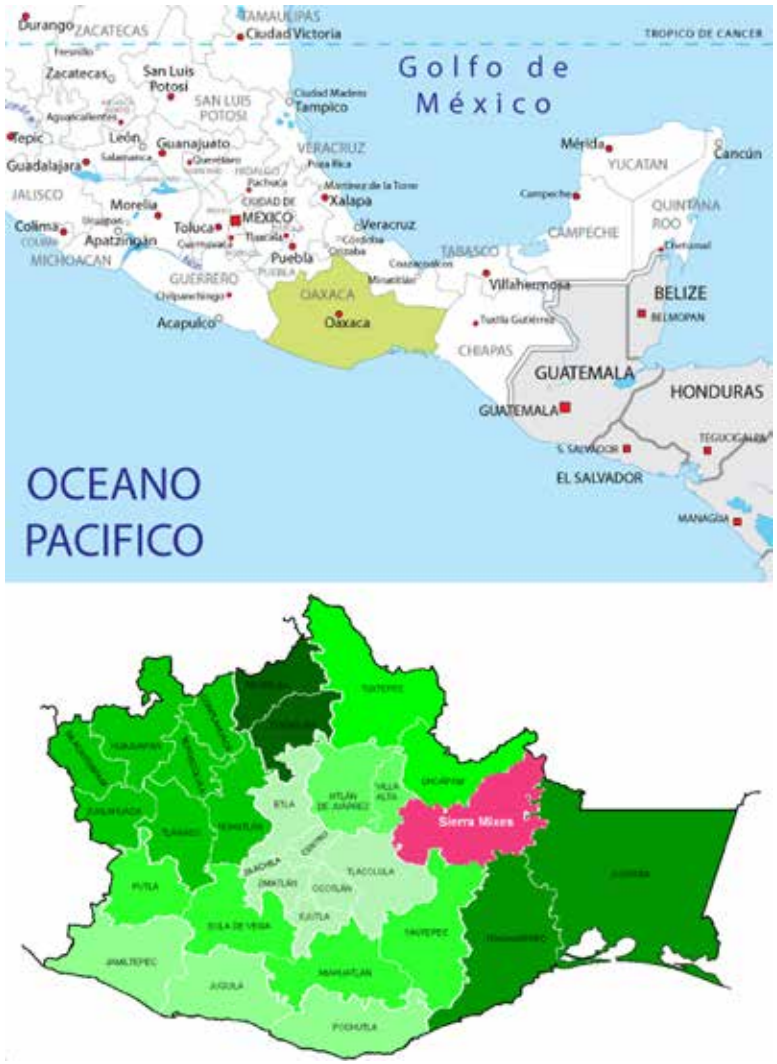
The Mixe people is distributed in a group of 19 municipalities[9] located, for the most part, in the northwest of the capital of the State of Oaxaca and living in 240 communities and localities. Of the 19 Mixe municipalities, San Juan Guichicovi was never part of the Mixe district, while San Juan Juquila Mixe was part of this until 1953, when it was segregated and San Carlos Yautepec was incorporated. Thus, the Mixe district is now composed of 17 of the 19 Mixe municipalities,[10] covering an area of about 6,000 sq km.

Regarding its limits, Mixe territory has the Villa Alta district to the Northwest, Choapam and the Veracruz State to the North, Yautepec to the south, and Juchitán and Tehuantepec to the Southeast. Ethnically, the neighboring peoples are: the Chinantecos and Zapotect of Villa Alta to the North; some popolucas and mestizo communities from Veracruz to the Northwest; the Zapotec of Cajonos and Yalálag to the West; the Zapotec of Mitla, Tlacolula, the communities of los Albarradas and the Yautepec district to the South and Southeast; and the Zapotec of the Tehuantepec Isthmus to the Southwest and East.[11]

The Mixe territory is characterized by a high diversity of ecological areas due to the different altitudes, being thus divided in high Mixe and low Mixe. The highlands lay 2,900 meters above sea level, with a temperate and humid climate, where the mesophilous mountain forests[12] are preserved. The low lands go down to 50 meters above sea level, with a humid climate of high perennial forests. This ecological differences mark also economic and productive differences. Logging prevails on the highlands while animal husbandry and fine timber logging are undertaken in the low lands, together with the mid- and small-scale coffee production.

Within this abrupt topography, several microclimates can be found in a reduced geographical space. Thus, the region has been divided into three climate areas: high and cold for altitudes higher than 1,800 m; middle or temperate, for altitudes between 1,300 and 1,800 m; and low and hot, from 35 to 1,000 m.[13]

Figure 1. Location of the State of Oaxaca and the Mixe region in the Mexican Republic



Santiago Malacatepec

The name of the community of Santiago Malacatepec derives from the Mexican Malcate Mountain, as malacatl means "malacate" and tepetl means "hill." Santiago Malacatepec is located in the Sierra Norte region, within the Mixe district, 16° 56´ latitude North and 95° 37´ longitude West, 1,300 meters above the sea level. Its limits are San Pedro Chimaltepec and San Juan Cotzocón to the North, Santiago Ixcuintepec to the South, San Pedro Acatlán to the East, and Santiago Ixcuintepec to the West. It is about 326 km from the state capital. The climate is quite humid, with southern winds.

The rainy months span from June to October; from November to February there are no rains and the average temperature reaches 25°C, which is considered cool or mild. There are also no rains from March to May and this is considered the dry season, with higher temperatures. As such, farming starts at the end of May and beginning of June, during the first rains, when different crops (corn, beans, pumpkins, chilies) are planted. They grow for approximately three or four months, until they are harvested.

In the last few years, rainfall throughout the year has varied excessively. Older people say that they used to plant

Photo 1. Panoramic view of Santiago Malacatepec, Mixe, Oaxaca



crops at the beginning of May because it was sure to rain on those days. Now they plant them at the end of May and beginning of June because they are not sure when the first rains will fall. Often all the crops have been lost due to a lack of water or an excess of water which rots the seeds.

Communications: Santiago Malacatepec has two land entry points from the municipal capital of San Juan Mazatlán: a dirt track by the Agencia Municipal de la Mixtequita that drives into the trans-seismic road, and another dirt track from Santa Isabel de la Reforma–City of Ixtepec. Once we arrive at the municipal capital, the road continues in the direction of Santiago Malacatepec through San Pedro Acatlán.

Access can be made in either a private car or via a special transport arrangement from San Juan Mazatlán or Santiago Tutla. Currently, there is no public transport to the community of Malacatepec due to the long distance and the bad condition of the roads.

It takes about 11 hours to travel from the City of Oaxaca to Malacatepec.

Access to media: Only the radio stations of the neighboring State of Veracruz are broadcasted in the community. There is also a basic telephone service with public phone boxes.

Photo 2. Use of alternative power in Santiago Malacatepec - solar panels



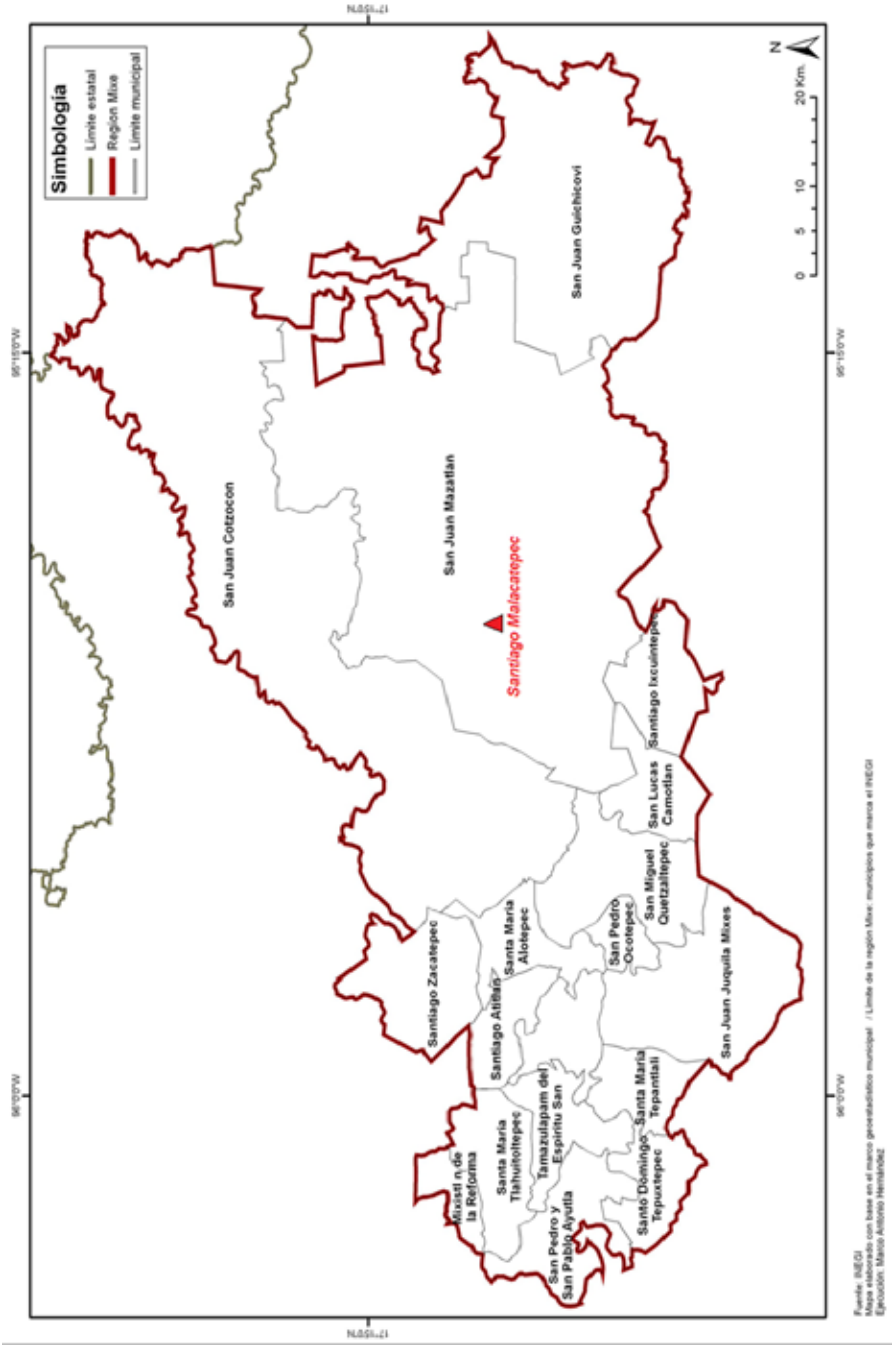


Figure 2. Location of Santiago Malacatepec within the Mixe region

Basic services: Malacatepec has a health post of the Mexican Institute of Social Security (IMSS), which is not well provided with the medicines needed to attend to the illnesses affecting the community. For medical services, therefore, many families must travel to the municipal capital and, in some instances, to the City of Matías Romero, about five and a half hours away from the community. The 80 percent of the total population has access to running drinking water. There are three schools for three levels: elementary, primary and distance secondary level.

Electric energy is provided by solar power through solar panels.

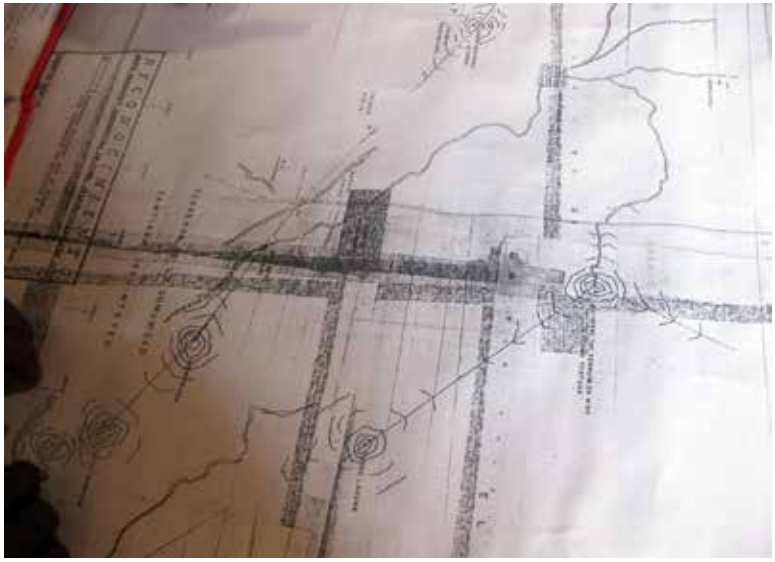
Economic activities: The main crop is coffee. The cash income of the families depends on its marketing at the local and national levels through organizations such as UCIRI.[14] At a smaller scale, different kinds of maize, beans (frijol) and chili are grown for self-consumption.

Animal husbandry is also small-scale. Animals are only used for ploughing in corn cultivation.

Housing: The houses of the families living in Santiago Malacatepec are generally simple, built with local materials such as sticks, adobe, bricks, tiles, corrugated iron, and palm leaves. Earthen floors are predominant. Most of the houses have one single room for all the family activities, such as cooking or sleeping, and it is also often used as a "troje"[15] and pen for hens and turkeys.

Population: The population of Santiago Malacatepec is of Mixe origin; they all speak Mixe language and most of them are also proficient in Spanish. According to the statistics from the Community Health Center, the current population is 1,168 inhabitants.

Photo 3. Map of Santiago Malacatepec territory



Source: Commission of Community Resources.

History

The inhabitants of Santiago Malacatepec do not know how the community was founded. The first inhabitants did not transmit this knowledge to younger generations, so there is no exact information on this important event.

It is said that the community of Santiago Malacatepec was founded by people coming from different communities, who where moving due to the continuous and violent fights among chiefs (caciques) for the control of Mixe territory. The communities suffering from these caciques' wars and who founded Malacatepec were: Santa María Puxmetacán, San Juan Cotzocón, San Juan Mazatlán, Santa María Alotepec, and even a Zapotec community called San Ildefonso Villa Alta. Men and women from San Juan Juquila Mixe also came to live in Malacatepec because they were merchants, trading in different products.

The present place where the Malacatepec community is located was difficult to access by land, the closest communities being about five hours far on foot. The place was also rich in natural resources, good lands for agriculture and had enough water, so it is believed that these were the reasons why they elected to settle in this place and start a new life, far away from the problems among the caciques.

-Don Hilarión Antonio Reyes, 82 years old
Elder and Counsellor of the community
of Santiago Malacatepec

According to Don Hilarión's recollection, in 1969 some 60 members of the community built the church, which is still in use today. It took them six years to complete the building, and several lives were lost due to lack of safety, proper food and the excessive work. The building materials were carried by the men on their backs. The earth for mud,[16] stones and mortar had to be carried from the village of Ixtepec, which took three days, crossing rivers and high mountains. The person responsible for the building of the church was the community priest, who was called Ernesto Rueda. The former church was made of straw and it was decided to build a more solid one, as straw could be burnt by lighting, which often struck in the community.

Don Hilarión says that the inhabitants of Santiago Malacatepec have always being humble. He remembers that, many years ago, there were many wars for the ownership of the land and the persons governing the communities were terrible people, people who would humiliate the indigenous Mixe. Fortunately, this has changed and that shows in the persons now visiting the community.

A good example of this are civil organizations, such as Servicios del Pueblo Mixe (SER-MIXE), run by Adelfo Regino, who has decidedly supported us without expecting anything in return. For instance, they have helped to provide electricity with solar panels in every house of the community. This has been very helpful, as now we have light and we can

Photo 4. Don Hilarión Antonio Reyes



do things we could not do before. Now we have support to have a better road for our community, because the road we have now is in a very bad condition and the state government does not pay us any attention.

Finally, Don Hilarión says that he is very grateful and proud that the community authorities have accepted this study in the community, as it would help the youth to learn about the community resources and how to conserve and preserve them

for future generations. For the Mixe, conservation of natural resources, particularly the forest, is of vital importance.

Community Organizational Structure

The community of Santiago Malacatepec is governed under the system of "usos y costumbres" (customary law).[17] The main authority is the Community General Assembly (Asamblea General de Comuneros),[18] which elects, judges, encourages and sanctions the inhabitants and/or the representatives in the different positions of the community institutions. The Municipal Authority is the administrative and executive body for any activity, project and program to benefit the community. The Commission of Community Resources (Comisariado de Bienes Comunales) has as its main aim the protection and sustainable use of natural resources.

The Municipal Authority and the Commission of Community Resources are two independent entities, but they work jointly regarding communal work, such as tequios,[19] opening of fire lines, or the fight against fires, among other issues.

The Municipal Authority and the Commission of Community Resources are two governing bodies with the same status and different functions. As mentioned, both organizations are elected through a customary law system, through the direct nomination and election at the Community General Assembly.

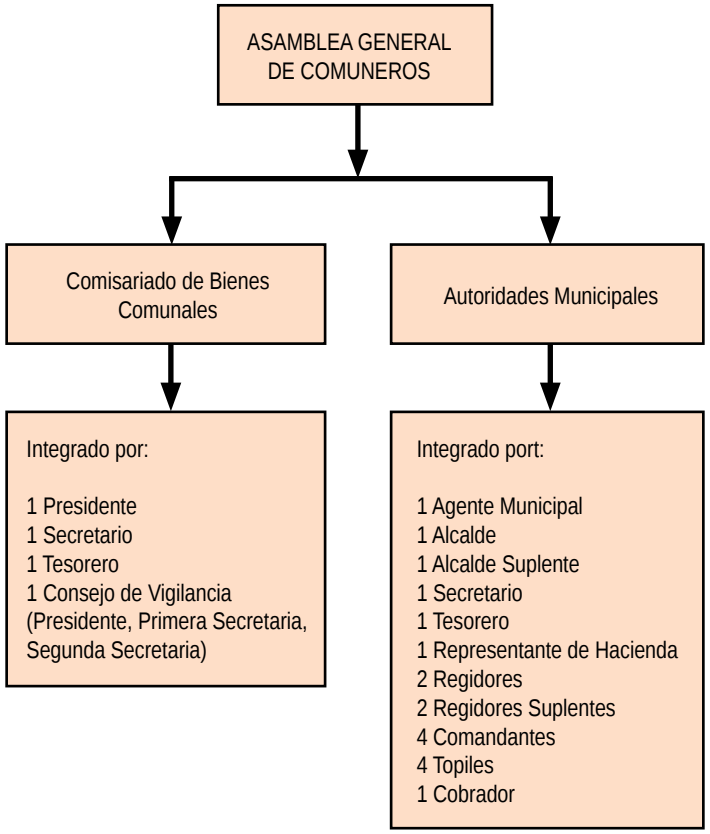
Currently, the Community General Assembly is composed of 272 community members. The majority are men, as women can only be members if they are unmarried mothers or widows.

Santiago Malacatepec has an agrarian settlement[20] called La Nueva Esperanza, located at about four walking hours from Malacatepec. This settlement was founded by inhabitants of Malacatepec who lived too far away from their plots, so they decided to move and settle in this place. Inhabitants of this settlement still participate as community members in the main community (Malacatepec), so they have the right to own plots for agriculture and to use natural resources for their families.

But, as they are far from Malacatepec, they cannot run for positions in the Municipal Authority or the Commission of Community Resources. Only one representative of the settlement can hold a position within the community authorities as Assistant Secretary, working under the Commission of Community Resources to manage and protect the interests of the settlement.

It is important to underline that the activities, traditional knowledge, management and use of natural resources (including forests) in La Nueva Esperanza do not differ from the ones in Malacatepec, as the inhabitants of the settlement are from Malacatepec and only left the community because of the long distance to their plots.

Figure 3. Organizational structure of the community of Santiago Malacatepec



Municipal Authorities

The system of authority regulates, organizes and integrates the community life of Santiago Malacatepec. It is a kind of local self-government, under customary law. The system is overseen by authorities or community representatives who are recognized and respected by the community members. The positions are held by the adult members of the community, generally men, on a rotation basis and for a year. After this period, the person or community member returns to his normal activity and will not have the responsibility of holding another position for a certain period. All the positions are unpaid.

The appointment of the authorities is governed by customary law. According to customary law, the Community General Assembly elects the authorities who will render their service to the community. It is worth mentioning that in the customary law system, there is no election of candidates: persons are appointed based on their individual merit and on the services they have rendered to the collectivity.

Elections in Malacatepec happen in October, and the elected authorities take office on the following January.

The announcement for a meeting of the General Assembly is made through a loudspeaker located high on the wall of the municipal agency. Dates and objectives of the Assembly are explained, such as the election of the new authorities of the community. Some notification placards are also prepared and posted on the more visible and public places, so the community members can see them and tell others in the community.

On the day of the Community General Assembly for the election of the municipal authorities, a time is devoted at the beginning of the session for the elders or prominent members of the community to present at length on the merits of the persons who could occupy the new positions. The appointment is done directly, after knowing the profile of all the proposed candidates presented by the elders and prominent persons, as mentioned.

Every year, 19 persons are elected to make up the cabildo:[21] four (4) topiles, four (4) commanders, two (2) regidores

(councilors), one (1) representative of the exchequer, one (1) treasurer, two (2) assistants, one (1) municipal agent, one (1) major, one (1) vice major, one (1) secretary, and one (1) fees and taxes collector.

Once the community representatives are elected, minutes are drawn by the incoming secretary and then signed by the authorities presiding over the Community General Assembly. This is then submitted to the municipal capital, San Juan Mazatlán, certification.

The topil is the first step in authority, where young people start to serve their community with messenger and police tasks. This responsibility does not require any expenditure and is met as a group. To be eligible as topil, a youngster must be over 16 and cannot be studying. It is worth mentioning that the community considers it more important for young people to study than to render community service, which may truncate their academic aspirations. They rather prefer that they finish their studies and then return to their community to advice and support the needs for community development.

To be a Major or President of the Church is one of the highest and last community services rendered to the community. When they finish their mandate, they are exempted from certain obligations, such as tequio or communal work, and they become part of the Council of Elders.

The Council of Elders is comprised of community members over 60 years of age who have complied with all the obligations imposed on them by the community. For their knowledge and experience, they constitute an advisory body to support and advice other community institutions, such as the Municipal Authority or the Commission of Community Resources, on problems they cannot solve by themselves. The Council of Elders is the most prominent and respected body in the community, as it symbolizes wisdom, life experience and particularly, traditional knowledge, which are distinct to Santiago Malacatepec.

The Municipal Agent is the higher position within the community. He is the chief of the local administration and represents the community in the relations with other commu-

nities. He also represents the community in dealings with the state government regarding different issues, mainly improvement of infrastructure and provision of funding support to more vulnerable families.

Persons who are not native to the community but are settled within it, due to reasons such as work or marriage with a woman of the community, can be elected to a municipal position if the Community General Assembly so decides, but they will not be accepted as community members. To live in the community, a foreigner has to commit to render community services, starting at the lowest level as topil, as he is considered a stranger to the community, not a native.

Foreigners that have been assigned a municipal position by the community assembly and, for whatever reason, fail to comply, can be expelled by the Community General Assembly and all their properties can be confiscated, although they can also reach an economic arrangement to be allowed to remain in the community. This payment may vary from 3,000 pesos or higher, depending on the Assembly decision. But they are not exempt to render community services at any other time, as they have to comply with the obligations the community requires.

Commission of Community Resources

In Santiago Malacatepec, the Commission of Community Resources is the body in charge of the management and protection of natural resources. The election of the members is based on the customary law, a type of self-government exercised by Mexican indigenous communities. The organization is governed by the General Assembly of Community Members, the highest community government body and made up of all community members.

The Land Law considers the Assembly, the Communal Goods Commission and the Municipal Authorities as the authorities of a farming community. The Assembly is the highest community authority, where the representatives for different jobs are put forward, chosen, judged, motivated and

sanctioned. This occurs every six months or more frequently, depending on the agreements that have been made.

The Commission of Community Resources is the spokesperson for the Assembly's agreements, given that is represents and manages administrative issues in line with the terms established under the communal statute.[22] This body is made up of a chairperson, a secretary, the supervisory body and the treasury.

The representatives for community resources are elected on the 19th of July, every three years. On that day, community members hold a meeting and they choose the representatives who will have to serve for the next three years.

The representatives of community resources, as well as those of the municipal authorities are chosen directly. In this community, candidates are not shortlisted, as happens in some other communities from the same region. Older people or the most prominent people are those designated to choose the people who will make up the Commission on Community Resources. The choice is made based on the work done in previous roles, the experience they have acquired in the different roles and, above all, the enthusiasm shown by the community member towards improving and preserving the natural resources in their territory.

The main tasks of the Commission of Community Resources are:

- To keep the general registry of community members where the basic data of each member is registered;
- To propose to the Assembly the updating of the registry, at least every two years, with the approval of the Assembly and the inscription in the National Agrarian Registry;
- To represent the community on agrarian, forest, environmental, and organizational issues;
- To manage under the SEMARNAT,[23] SEDAF[24] and IEEO[25] the granting of cedar plantations for the reforestation of damaged areas;
- To manage funding and material support for the community programs such as PROCAMPO[26] and

PROGRESA,[27] for the benefit of the community and to respresent its members with public institutions;
- To propose to the Assembly the updating of the Community Statute every three years, at the beginning of the regular term of service;
- To undertake timely coordination on the tequio activities agreed at the General Assembly;
- To coordinate the work to clear the limits of the community every 12 months.

Women's Participation in the Community

There are historical and economic factors that foster ethnic and gender inequalities among indigenous peoples. The living conditions are the same for men and women, but there are differences in the access to the resources and services to satisfy their basic needs. Therefore, women suffer a double vulnerability, for being both women and indigenous.

Problems suffered by women arise from their gender condition and position and their access to goods and services. They have less power in decision making compared to men. The inequality between men and women is evident in the hours of work, ownership of the land, health and many other areas.

Regarding the working hours, the activities divided among the two sexes, linked to the gender division of work, have a harder impact on women. In this community, women work for about 16 hours a day in domestic tasks, which include cleaning the house, taking care of their children and husbands or cooking and carrying the food to their husbands working in the fields.

Indigenous women are involved in all production as well as reproduction processes, without relying on, in most cases, basic services to help them with this task. Women spend most of their time producing, making, selling and preparing food, collecting materials for fuel, and carrying water home. This is in addition to other tasks such as looking after their children, extended family and backyard animals.

Indigenous women perform a wide range of activities. At home, they are responsible mainly for domestic chores and small-scale economic activities—called "backyard" activities. Their responsibilities increasingly include agricultural tasks, causing the trend known as the "feminization of small-scale family farming."

Female family farmers have the potential to participate in the social and economic development of their communities and regions. However, not enough attention or support is given in order to achieve this. Women demand training; they demand to take part in their society's decisions, to develop economic activities, which generate an income and provide a better standard of living for their families. They demand services and infrastructure for their village, so they can be free from the hard days of domestic work, so they are able to advance in their personal development and be a part of, as well as take part, in bringing dignity to the quality of life in rural areas.

Women's participation in the decision making in the Assembly is minimal compared to men's, due to the custom which governs the Malacatepec community. In the community, physical work in the fields is considered to be exclusively a man's task, while the women have the responsibility for the work at home.

This is not true for all the families. There are instances of women also working in the agricultural fields. Actually, Mixe women are considered among the best workers in the plots, compared with women from other indigenous peoples.

Women have no right to participate in the Community General Assembly unless they are recognized as community members in the general registry of the Commission of Community Resources. They are only accepted in case they have lost their husbands, if they have inherited, or if they are single mothers in charge of a family.

The same can be said about land access and use. Women only own a piece of land when their husband dies or if the husband has left the community. It is common to see women from the region working their plots of land. However, most

of them do this to support their husbands who have left the community or to support their families when the husband has died.

It must be said that in a family with both male and female children, boys are always the ones selected by the father to inherit the family goods. It is nearly impossible for a woman to inherit, as it is thought that a woman will, sooner or later, leave the family circle and will marry a man who will have his own inheritance. Under the uses and customs, women have no right to land.

We must mention that there are community bodies where women are a majority, such as the school committees and the crop production groups. In school committees, women occupy lower positions, that is to say, they are generally secretaries or treasurers. In most cases, the position of committee chair is given to a man because it is believed that men are the ones capable of resolving different problems which arise, as happens in the family and community. More women make up the groups which produce crops,[28] as with this they contribute to the family economy, providing fruit, vegetables, backyard animals, as well as earning money from selling excess produce.

To date, there are no registered data on any woman who has served as a Municipal Agent or with the Commission of Community Resources.

Malacatepec and the Forest

Types of Property of Land and Forests

The lands of Santiago Malacatepec are under the communal use regime. In this regime, there is a collective right in the community, which gives every member the right to use the community's properties independently. For example, members have the right to graze their cattle on common pasture.[29]

The community lands, in most of the Mixe region, including Santiago Malacatepec, can be divided in two types:

a. *Cultivation plots* - elected by each member of the community according to the quality of the soil and its vegetation; and
b. *Communal use land* - which includes the forest, where any community member can freely access to the resources within.

Forests are the place of sacred sites and they are economically and symbolically important for the Malacatepec Mixe. Thus, their exploitation is controlled by the Commission of Community Resources and the access to their resources is accompanied by different rituals.

The community lands of Santiago Malacatepec can be sold with the authorization of the Commission of Community Resources. But this happens very seldom as the community members consider the land as their Mother who nurtures them, and it is impossible to trade her.

The Use of Land

In Santiago Malacatepec, any community member can access any part of the lands of the community to produce his own food such as corn, frijol, chili and pumpkins.

The way to access a plot is simple: you just have to select an area of whatever size and perform the cultural tasks needed for cultivation: cutting, clearing, burning and sowing.

Community members will select the place and size of the plot better suited to them considering the economic resources they have to invest and their food needs, without any obligation to ask for permission to the Municipal Authority or the Commission of Community Resources. This is the common practice in most of the communities in the Mixe region, as it is allowed by the traditional uses and customs.

The community members of Santiago Malacatepec perform a ritual before any activity to open a plot in the forest. In the ritual, they kill a cock, water the land with its blood, and

also throw some mezcal[30] and three cigars. This ceremony is performed to ask for Mother Earth's permission to sow their crops, praying for her to be productive. This ceremony is not only performed in Santiago Malacatepec, but in most of the communities of the Mixe region.

In this community, slash and burn agriculture[31] and milpa[32] are still practiced. Community members obtain most of their yearly food from their plots. After about two years, they leave their plot, which is left to rest for a period from five to 10 years before being cultivated again by the same community member or by another.

In the Community General Assembly, community members are always reminded of and called to leave the plots to rest for the aforementioned period. This is so that the land can recover, and to be careful not to burn the forest, with the aim not to exhaust the natural resources provided by Mother Earth.

> *The main crops in this community are coffee, corn, fríjol and a bit of chili. Chili used to be more common before but with the changes in the climate and the seasons, it is not so much cultivated any more. Most of the year can be termed as rainy; in the months of April and part of May, heat can be felt as in other hot areas. Before, sowing happened at the end of April to take advantage of the first rains in May, but nowadays it has been moved to the end of May, hoping there will be rain by then or by the beginning of June. We really do not know anymore when to sow because the rain is sometimes early and sometimes late.*
>
> *-Don Jerónimo Cruz*

Taking Care of the Forests

Forest devastation by forest fires has a big impact, not only on the Santiago Malacatepec community, but on all the indigenous communities in the world, as the affected areas are

the main heritage and food source for indigenous peoples.

Forest fires in Malacatepec are mainly due to carelessness by some community members when they burn the stubble in their plots while cutting and clearing to open a plot for cultivation. Stubble burning at midday, when the wind is strong, or doing it single handed, may cause the fire to get out of control and affect the community forests.

Another reason for the loss of forests through fire happens when the fire starts in a neighboring community, is out of control, and enters the Malacatepec territory.

Unfortunately, the community has no exact data on the surface affected by forest fires.

When there is a fire in the forests of Malacatepec, the Commission of Community Resources is called. They call, in their turn, the people through a loudspeaker which can be heard all over the community, so the members can help to extinguish it. Participation is voluntary and there is no fine or sanction for those who do not participate. Community members who help are usually those who have plots close to the fire. Underaged males, those older than 65, and the sick are excluded from service. There is a committee devoted to fighting forest fires but, as recognized by Commissioner Alfonso Victoriano Corcino, the committee is not enough, and this is why volunteers are called to have a bigger team to face the fires.

The committee and the volunteers generally meet in the courtyard of the Municipal Agency with the necessary tools, such as machetes, sticks and picks. There, they agree and plan strategies to cut the progress of the fire.

The method used is to open fire lines, cutting down the green plants some meters away of the fire with the machetes. The vegetation is completely cleared away with the help of the picks and carried to a place where it cannot be reached by the fire. Then a 2-3 m-wide firebreak is made with picks and spades around the burning area with the objective to direct the fire towards the areas where the vegetation is scarcer, where it is easier to put down the flames.

The firebreaks are an easy option to fight forest fires, a technique that attempts to reduce the impact on the forests. It is done by retiring the organic fuels in the forest or pastures and cleaning down the mineral soil, thus eliminating one of the three elements in the triangle of fire: oxygen, heat and fuel.

It is important to mention that sometimes it is difficult to access the fire areas if they happen to be on very steep slopes or when the fires are too big. In such cases, the SEMARNAT is called. They have the appropriate personnel and equipment to fight against forest fires.

Other risks that forests face is the growth of extensive livestock farming for which forests are destroyed to make way for pastures. With the destruction of the forests, animal and vegetable species are also lost.

In recent years, Malacatepec has seen this growth as another way of making an economic income from selling the meat from livestock, inside and outside the community. Fortunately, because Malacatepec is a small community, the impact of livestock has been limited. However, measures need to be taken so as to prevent this activity from growing at an uncontrolled rate and consequently seriously affecting this community's forests.

It is worth mentioning that this community has to date, not had problems with extractive activities such as mining, dams or plantations.

Traditional Practices for the Use of Forest Resources

Santiago Malacatepec manages the forests empirically, with the objective of preserving them. This means there are certain areas of old plantations where neither timber nor non-timber products are extracted; while there are certain areas where timber and firewood are collected. This point of view is supported by the elders of the community who do not agree to a commercial management of the forest because they think the pristine areas are the heritage for future generations. The

forest also ensures other services, such as clean air, capture and retention of water, landscape, animal habitats, medicinal plants, biodiversity, and soil conservation.

The dependence of the community from the natural resources can be observed in the use of wood for house building and as firewood for the kitchen.

The community of Malacatepec is governed by a Community Statute stating the rules and the sanctions for those who dot not comply or violate the rules stated therein. The second chapter of the statute describes the obligation to conserve, foster and protect the natural resources within the community territory. Persons who misuse natural resources are applied sanctions determined by the General Assembly. Sanctions range from an oral rebuke to fees, and even to the loss of the status as community member, thus losing all the rights in the community.

Biological Diversity in Malacatepec

A great part of the Malacatepec forests has been subject to human use and some animal and tree species are endangered. The following table shows the main diversity in the community:

List of flora or fauna	Description, importance, use	Status (decreasing, menaced, endangered, etc.)
Red oak (*Quercus rubra)*	Red oak is one of the most common species to be found in Malacatepec and valued by the community for its wood used for home and furniture building.	The over use of this tree has diminished their number compared to some years ago when there were many covering the community mountains. Its use as timber has now been reduced and this is helping the species to recover and again populate Malacatepec.

Pine tree/Pinus Ocote. (*Pinus spp.*)/(*Pinus montezumae)*	Pine trees, like red oaks, are abundant in the community territory and because of their height and width are mainly used as timber, as wooden posts in building, and as firewood to cook.	Pine tree population has decreased but they are not endangered
Cedar (*Cedrela mexicana*)	Used to provide shade for the coffee plants. The community members plant them in their coffee plots and when they are high and wide enough, they are used as timber.	Cedars are abundant in the community area as they are frequently planted.
Nance (*Byrsonima crassifolia)*	Its fruits are eaten and the tree is also used for firewood.	There are many of these trees in Malacatepec territory; they have decreased but are not endangered.
Sweetgum or liquidambar	It is only used for firewood.	Very common in Malacatepec forests; its population has not varied.
Orange tree (*Citrus sinensis*), Mamey sapote (*Pouteria sapota*), Avocado tree (*Persea americana*), Mango tree (*Mangifera indica*), and bananas (*Musa paradisiaca*)	Used only for fruit, never for timber as fruit is collected from them every year.	There are many fruit trees in the forest and in the community, as they are planted for fruit production.

Täá´ny, Tsäny työtsj	These trees are only known by the local name. They live in the remote areas of the forest, far from the community, about 6 hours away on foot. They are not used, due in part to their distance to the community but also because they are valued as the oldest trees in the territory. The place where they are found is called Cerro Cacalotepeña, where wild animals such as pumas (*Puma concolor*) and monkeys (*Ateles geoffroyi*) live. This mountain is considered a pristine area and is protected. In the area, there are trees of many species, from 3 to 20 meters high.	High population as it is nearly not used, so there is no danger to their survival. .
White oak (*Quercus spp*)	Its wood is very appreciated by the community members for its texture and good smell. It is used as building posts, fence posts and firewood. They are not cut until they are about 12 m high, when the community members consider them ripe.	There are many trees of this species in the Malacatepec territory; their numbers have decreased but are not endangered.
The season and time for logging and wood cutting is important. As a general rule, community members of Malacatepec fell the trees in the full moon as they think the moon has a lot of influence on the trees. If wood is not cut under the full moon, it rots quickly so it has a short useful life.		

Common rue (*Ruta graveolens*)	Medicinal plant easily found in the community lands and in the forests. Used to alleviate fever and dysentery.	This plant grows wild in the Malacatepec forests and can also be found by the community houses. The community members generally use the plants by their homes, so the plant is not at all endangered.
Costmary (*Tanacetum balsamita)*	The leaves are used to treat fever and muscular pain.	Costmary grows wild in the forests. It is collected during the spring season. It is not endangered.
Coca flower	Very commonly found by the roads and on the slopes and it is used to treat dysentery.	Coca flower grows wild in the forests and is collected during the spring season. It is not endangered.
Tsëk këpyj	Some trees also have medicinal uses, generally their barks. Tsëk këpyj bark is used to treat lack of appetite.	This tree can be found in most of the community forests. Population is not high, but as it is only used as a remedy for the lack of appetite; their population is not endangered.
nëë´jty	The bark is used to alleviate muscular pain.	This tree can be found in most of the community forests. Population is not high, but as it is only use as a remedy to alleviate muscular pain; their population is not endangered.
Ájts	Used for fever and kidney ailments.	This tree can be found in most of the community forests. Population is not high, but as it is only used as a remedy for fever and kidney ailments, their population is not endangered.

Night blooming cestrum (*Cestrum nocturnum*)	This plant can be found close to the community, also in some coffee plots, and it is more often used for headaches.	This shrub grows close to the community and is very abundant. It is only used as a remedy for headaches and is not endangered.
Quelite	The name applies to several wild species used for food and mainly collected in the agricultural plots.	These plants are very common in plots. They appear during the rainy season or after the first watering.
Kööx määt´ükë	This plant is easily found in the forest and is used as food.	It is very common and appears after the rainy season.
Animal hunting is also practiced in the forests by the community members of Malacatepec. These animals can be found:		
Deer (*Odocoileus spp.*), wild boar (*Sus scrofa*), badger (*Meles meles*), armadillo (*Dasypus novemcinctus*), spotted paca (*Agouti paca*), red brocket (*Mazama americana*), fox (*Vulpes vulpes*), racoon (*Procyon lotor mexicanus*), monkeys (*Ateles geoffroyi*), squirrels (*Sciurus vulgaris*), plain chachalaca (*Ortalis vetula*), wild turkey (*Meleagris gallopavo*), quail (*Coturnix coturnix*), peacock (*Pavo cristatus*), toucan (*Ramphastidae*), parrots (*Aratinga canicularis*), and an enormous variety of birds in all shapes and colors.	Most of the animals are used as food.	Unfortunately, due to over-hunting for several years, animal population in the forests has decreased. Today its is difficult to see a large quantity of animals that could be found some years ago without so much walking. Nowadays, to be able to hunt, you have to walk deep into the forests and a group of people is needed to be able to hunt any animal.

Don Hilarión says that in 1984, there was a walk around with most of the community members over the limits of the community, and by then quite a number of wild animals could be seen. Now it is difficult to find many animals.

Regarding this issue, the Commission of Community Resources has, for many years, talked about this problem at the Community Assemblies to raise awareness on the importance of animals for their surrounding ecosystem. Fortunately, animal hunting has decreased and there is hope that, sooner than later, animal populations will recover.

It is also easy to find in the forests reptiles such as serpents, the most common been the so called sordas, considered lethal and called jääy jüü in Mixe language. Also common are boas, elapids (*Elapidae*), colubrids (*Colubridae*), green serpents, and püüjk (grey viper). Many community members have been attacked by serpents, generally when they are clearing their plots, roads and slopes. An average of four persons a year are treated at the health center for serpent bites and, in some serious cases, they have to be taken to the closer hospital, Matías Romero, for their treatment. Some people die during the travel if the serpent's venom is strong.

The knowledge about the use of trees, plants (for food and medicine) and animals is transmitted from one generation to another through informal processes. Most of the community members, both men and women, have access to that knowledge.

The oral transmission of knowledge and experiences, which children receive verbally from their fathers, mothers and grandparents, has been the vital basis for preserving knowledge about the use of plants. This knowledge and these experiences are passed on from generation to generation. Children learn from what they hear from adults and from what they read; they also learn from what they see and experience themselves in their day-to-day lives.

Through the transfer of knowledge, Malacatepec and other indigenous peoples ensure that younger generations give continuity to the knowledge, values and interests, which set them apart as a group and make them different from others.

Sacred Sites

All cultures in the world consider certain places as sacred and so do the inhabitants of Santiago Malacatepec. They have sites considered sacred, which they value and treat with the utmost care. In the Malacatepec forests there are two sacred sites, the first known as Mëëjy äpy (the lagoon), and the second called tsën ix´wäk (no Spanish or English translation).

These sacred sites are visited throughout the year by the community members, always in the company of wise men able to communicate with Mother Earth and the forest. These persons are called chamanes and charged with the performing of ceremonies for different purposes. One of the most common ceremonies is performed at the beginning of the year, when the Municipal Authorities and the Commission of Community Resources ask the natural beings for their guidance and their help to achieve success for the benefit of the community.

Besides the visits by the community authorities, sacred sites are also visited by the community members at the new year to ask for good health for their families and for work to be able to sustain themselves and feed their families.

Sacred sites are also visited at any time when a baby is born, in case of serious illness or in religious festivities. The chaman uses in his ceremonies a hen or ocellated turkey (guajolote), hen or guajolote eggs, incense, coal, candles, flowers, mezcal or beer, and dough.

In the ceremony, a small hole is dug and the dough is extended and smoothed to cover it evenly. Then the hen or guajolote is sacrificed and its blood is sprayed over the hole. Then incense, coal and flowers are thrown inside the hole and mezcal or beer are sprayed around. Then the candle is lighted as a symbol of hope. During all the process, the chaman talks with the natural beings in the local language, praying for the person who took him to the sacred site.

Another sacred site known in Malacatepec is wäky nëë (the water cave), a water source, and origin of the waters irrigating the whole community. Ceremonies are also performed here by chamans so it does not dry up.

Photo 5. Offering in *Mëëjy äpy*, Santiago Malacatepec



The Legend of the White Water Mountain (Cerro Agua Blanca)[33]

In the agrarian place now called 'La Nueva Esperanza,' a recently-founded settlement close to the White Water Mountain, they say there was a man working his plot. He was originally from the Malacatepec community. He cultivated sugarcane for its processing into panela[34] he later sold to the members of his community and to other neighboring communities. Some time ago, crops were good and abundant but, along the years, the production quickly decreased. The man was worried, nearly desperate, as that was the only means of survival for him and his family. He arrived to the point of dejection, feeling like abandoning the plot. The leaders of the community tried to encourage him and also told him he should make an offering to the mountain and to the place where he had his plot to ask for permission and to obtain good crops, because such place was considered as sacred and it needed to receive offerings to be spiritually satisfied.

One day, when the man was in his working field thinking of what to do to make his land productive, a very well-dressed man suddenly appeared. In the village, persons dressed like that, with long-sleeved shirts, denim trousers and sneakers or shoes, are considered to be from the city. This man shouted to him, ordering him to make an offering to the White Water Mountain.

The man was very impressed by this visit. He went back home at night and told his wife what had happened. After thinking about it with his family, they decided to follow the request. The following day, very early in the morning, he packed all the things he needed for the adoration ceremony: he took a bottle of mezcal, hen eggs; he cut flowers from his garden; he took dough, cigars, candles and one of the fatter hens in his den. He walked for about five hours in the direction to his plot, took out the offerings he was carrying and started the ceremony, fervently praying for the land to be productive so he would have his bread and food.

Later, he climbed the mountain and deposited his offerings. When he was walking down, he started hearing sounds as if a music band were playing and voices of people, as if they were happy, in a celebration. First, he felt afraid, and he did not turn his face until he was down the mountain. Then, he calmed himself and thought, 'I think the mountain is satisfied.' He took his bag and started the way back home, where he told his wife what he had heard.

A few days after the offering, his plot became green again and the sugarcane was covered with new sprouts, growing quickly. In a short time, the man was one of the bigger producers and traders of panela in the region. Since that day, he went every year to make his offering and to give thanks for the productivity of his lands and blessings. The people in Nueva Esperanza say that you can still hear the music and happy voices in the Mountain in the month of December. Some people are afraid to climb because of the custodian spirits of the forests of the mountain. This is why they do their offerings to their mountains every end of the year.

Rules and Regulations in Santiago Malacatepec

The community of Santiago Malacatepec has made significant advances in its organization, agricultural production and sustainable management of natural resources because they have integrated policies of coexistence and wise use in the draft of their Community Statute.

The Community Statute is a written document containing the social rules to regulate relations among people. It includes regulations on access to the natural resources in the lands of the communities and ejidos, based on the oral tradition and the oral agreements reached at the Assemblies.

The community and ejido Statutes are based on Articles 9, 10, 21, 22, 23, 98, 99, and 100 of the current Agrarian Law and on Article 27 of the Political Constitution of the United States of Mexico.

Once the statute is drafted and adopted by the community members (ejidatarios) in a general assembly, this is registered at the National Agrarian Registry (RAN) to be legally recognized by official and civil institutions and enable any procedure by the community.[35] (Please see Annex for the Community Statute of Santiago Malacatepec).

Conclusion

The functioning of the community structures, the Community Statute, the beliefs, customs and, overall, the close relationship between the Mixe of Malacatepec and their forests, have ensured the proper care and wise use of the natural resources and the conservation of the forests.

The close relationship between indigenous peoples and forests has allowed the survival of the former and the conservation of the latter. It is therefore of vital importance to develop and disseminate case studies to show that indigenous

peoples and the forests have been able to harmonically coexist for hundreds of years. They prove that the indigenous habitation inside the forests is the best way of conservation.

The communal way of managing the natural resources (plants, animals, forests) in Santiago Malacatepec has fostered the conservation of natural resources. This is mainly due to the communal social organization, which has communally fought for the protection of the forests and their domestic use (firewood, timber).

Malacatepec has a community organization system based on the uses and customs. The Community General Assembly is the highest authority and the Commission of Community Resources is the administrative unit for natural resources. This has allowed for the consolidation of the social capital: trust, participation and cooperation, thus strengthening the institutional structure, which supports the internal administrative regulation and the interrelationship with the general society.

Malacatepec is very small, so the impacts of national and state forest policies have been scarcely felt. Rather, the community members have followed an internal conservation and protection policy, raising the awareness of each member, particularly the youth.

There is no restriction on the extraction and use of timber and non-timber resources, as long as it is done for self-consumption of the members of the community.

Malacatepec does not suffer illegal extraction of their resources and this is due, in great part, to the control system in place, implemented by each member of the community.

Legally, the forest belongs to the 233 community members registered with the National Agrarian Registry. The ownership system is patriarchal, i.e., men represent the women in the Assembly and in the community work, save when women are heads of the family for unavoidable reasons, such as the death of their husbands.

The communal system implemented in Santiago Malacatepec has partially succeeded in the conservation of

natural resources, but has not fully achieved the sustainable management of the forest, as some areas are over-exploited while others are under-used.

To have a well-defined community statute, with clear sanctions in case of misuse of the resources, is a very important step that has been adopted by the great majority of the indigenous peoples in Oaxaca. The community statutes are agreements adopted at the General Assemblies and they have official value in front of any authority. They include the sanctions for non compliance among their provisions.

For decades, the community of Santiago Malacatepec has traditionally managed its forests. As a result, those forests have survived until today. Forest exploitation has not been an option for the members of this Mixe community. On the contrary, they have opposed any attempt to commercialize their natural resources. Although it is true that some trees and animals have seen their populations decrease compared to some decades ago, this is a result of the population growth, which requires the use of natural resources for home building and food.

It is of vital importance for the indigenous peoples of the world**,** and for Santiago Malacatepec itself, to keep using wisely and responsibly their natural resources, to teach the youth to love Mother Earth, and to transmit their knowledge to the next generations.

This declaration refers to the indigenous peoples of the world and is not just applicable to Santiago Malacatepec, as it is very important to preserve our Mother Earth.

Endnotes

[1] Ensuring Rights Protection, Enhancing Effective Participation of and Securing Fair Benefits for Indigenous Peoples in REDD Plus Policies and Programmes - Facilitating the effective participation of indigenous peoples and ensuring the implementation of human rights safeguards, environmental integrity and good governance in forests within REDD Plus and its programs.

[2] Comisión Nacional de Bosques, CONAFOR.

[3] These are village lands communally held under customary land tenure.

[4] Boege 2003, 171.

[5] National Statistics, Geography and Computers Institute 2004, 184.

[6] Accessed at: http://www.wwf.org.mx/wwfmex/prog_bosques.php.

[7] National Forests Commission (CONAFOR) 2010, 9.

[8] Ibíd. 9.

[9] The 19 municipalities that comprise the Mixe region are: San Pedro and San Pablo Ayutla, Santo Domingo Tepuxtepec, Santa María Tepantlali, Tamazulapam del Espíritu Santo, Santa María Tlahuitoltepec, Mixistlán de la Reforma, Totontepec Villa de Morelos, Santiago Zacatepec, Asunción Cacalotepec, Santiago Atitlán, Santa María Alotepec, San Juan Juquila, San Pedro Ocotepec, San Miguel Quetzaltepec, San Lucas Camotlán, San Juan Cotzocón, Santiago Ixcuintepec, San Juan Mazatlán, and San Juan Guichicovi.

[10] Today, San Juan Guichicovi and San Juan Juquila are not part of the Mixe district for political reasons. However, both communities identify themselves as Mixe and preserve the distinct Mixe language, customs and traditions.

[11] Centro de Estudios Ayuuk-Universidad Indígena Intercultural Ayuuk 2006, 13.

[12] Mountain cloud forest: Cloud forests, also known as mountain cloud forests, can be found in the shape of islands, throughout Sierra Madre Oriental and Sierra Madre Occidental. This type of forest is characterized by being almost constantly surrounded by mist.

[13] National Commission for the Development of Indigenous Peoples 2008, 145.

[14] UCIRI: Unión de Comunidades Indígenas de la Región Istmo (Indigenas Communities of the Isthmus Region Union). Organization devoted to coffee marketing.

[15] Barn, place to keep grains and seeds.

[16] Mixture of water and earth. It is a common building material in the Mixe region.

[17] In the State of Oaxaca, Mexico, indigenous peoples maintain their traditional regulations for the election of the municipal authorities. This social and political organization system, commonly known as "usos y costumbres," confers them a distinct identity and makes them an example of direct and participatory democracy in the state.

[18] It is the highest internal authority in the ejido localities and in the communities who are owners of lands. Its legal recognition is found in Article 22 of the Agrarian Law stating that the Assembly, where all the community members participate, is the supreme body.

[19] The tequio (from the náhuatl tequitl - work or tribute) is an organized work for the benefit of the community. The members of the community must contribute materials or their own labor to perform a community work, such as the building of a school, a fence, a road, etc.

[20] According to Art. 105 of the Agrarian Law, the communities can, for their administration, establish groups or sub-communities with their own representative and administrative bodies. The may also adopt different organizational arrangements as long as they do not contravene the general bodies of the Assembly. The Assembly can establish the internal organization of the communal groups or sub-communities.

[21] Popular representation body composed of the representatives elected in the Community General Assembly. They serve for one year and cannot be elected for the consecutive term.

[22] Internal regulation of a community, promoting living together and governing the rights and obligations of community members.

[23] Secretariat of the Environment and Natural Resources.

[24] Secretariat of Agrarian and Forests Development.

[25] National Institute of Ecology of Oaxaca.

[26] Program of direct assistance for the rural areas.

[27] Education, Health and Food Program.

[28] These are funded by the state and civil society organizations, in coordination with national and international foundations.

[29] http://www.fao.org/docrep/005/Y4307E/y4307e05.htm#bm05.3.

[30] Traditional alcoholic drink of the Mixe people, obtained from the distillation of the fermented juice of several types of pita.

[31] This system has been practiced by indigenous peoples for centuries. It consists of preparing the land at certain periods of the agricultural calendar, pruning and clearing (roza), cutting and logging (tumba), and finally, burning this and the remaining in situ vegetation (quema)

to leave the ashes as a substrate for sowing.

[32] Mesoamerican agroecosystem mainly composed of corn, frijol and pumpkin, sometimes also chili. It is not just a plot sown with corn.

[33] *As told by Alfonso Victoriano Corcino and translated by Benito Sandoval Mónico.*

[34] Unrefined whole cane sugar.

[35] Galindo-Leal 2006.

[36] *Agrarian Law* Art. 9. *Los núcleos de población ejidales o ejidos tienen personalidad jurídica y patrimonio propio y son propietarios de las tierras que les han sido dotadas o de las que hubieren adquirido por cualquier otro título.*

[37] *Agrarian Law* Art. 10. *Los ejidos operan de acuerdo con su reglamento interno, sin más limitaciones en sus actividades que las que dispone la ley. Su reglamento se inscribirá en el Registro Agrario Nacional, y deberá contener las bases generales para la organización económica y social del ejido que se adopten libremente, los requisitos para admitir nuevos ejidatarios, las reglas para el aprovechamiento de las tierras de uso común, así como las demás disposiciones que conforme a esta ley deban ser incluidas en el reglamento y las demás que cada ejido considere pertinentes.*

[38] *Agrarian Law* Art. 23 Frac. I. On the elaboration and amendment of the internal ejido regulations.

[39] *Agrarian Law* Art. 107. *Son aplicables a las comunidades todas las disposiciones que para los ejidos prevé esta ley, en lo que no contravengan lo dispuesto en este capítulo.*

[40] Agricultural plots.

[41] *Agrarian Law* Art. 17. *El ejidatario tiene la facultad de designar a quien deba sucederle en sus derechos sobre su parcela y en los demás inherentes a su calidad de ejidatario, para lo cual bastará que el ejidatario formule una lista de sucesión en la que consten los nombres de las personas y el orden de preferencia conforme al cual deba hacerse la adjudicación de derechos a su fallecimiento. Para ello podrá designar al cónyuge, a la concubina o concubinario en su caso, a uno de los hijos, a uno de los ascendientes o a cualquier otra persona. La lista de sucesión deberá ser depositada en el Registro Agrario Nacional o formalizada ante fedatario público. Con las mismas formalidades podrá ser modificada por el propio ejidatario, en cuyo caso será válida la de fecha posterior.*

Bibliography

Boege, Eckart. 2003. *Manual para la gestión ambiental comunitaria, uso y conservación de la biodiversidad de los campesinos indígenas de América Latina*. Serie Manuales de Educación y Capacitación Ambiental 3. Secretaria de Medio Ambiente y Recursos Naturales, United Nations Environmental

Program, Regional Office for Latin America and the Caribbean, Fund for the Development of the Indigenous Peoples of Latin America.

Centro de Estudios Ayuuk-Universidad Indígena Intercultural Ayuuk. 2006. *Hacia Donde Vamos. Un diagnóstico de la Región Mixe*. Oaxaca, Mexico.

Galindo-Leal, C. y J. Pérez Ojeda, eds. 2006. *El Rompecabezas Regional-Herramientas para el desarrollo sostenible***.** WWF-Mexico. VISUM Comunicación Gráfica.

http://www.fao.org/docrep/005/y4307s/y4307s05.htm.

http://www.wwf.org.mx/wwfmex/prog_bosques.php.

Instituto Nacional de Estadística, Geografía e Informática. 2004. La Población Indígena en México. Aguascalientes, Mexico.

Ley Agraria: http://www.diputados.gob.mx/LeyesBiblio/pdf/13.pdf.

National Commission for the Development of Indigenous Peoples. 2008. *Región Sur Tomo 1. Oaxaca. Condiciones Socioeconómicas y Demográficas de la Población Indígena/Comisión Nacional para el Desarrollo de los Pueblos Indígenas*. Mexico: CDI, UNDP.

National Forests Commission (CONAFOR). 2010. *Visión de México sobre REDD Plus, Hacia una Estrategia Nacional*. Jalisco, Mexico.

Annex

COMMUNITY STATUTE OF SANTIAGO MALACATEPEC

In the community of Santiago Malacatepec, Municipality of San Juan Mazatlán, belonging to the judicial district of Santiago Zacatepec Mixe, State of Oaxaca.

CONSIDERATIONS

The present document regulate the internal life of the community of Santiago Malacatepec with the aim of establishing the alternatives for the economic and social development of the community, both the main community and the settlement of La Nueva Esperanza, which is an annex to the community, based on the principles of law, freedom and justice but always respecting the uses and customs as well as the culture and tradition, which cannot be construed as a transgression.

The present regulation is based on Articles 9, [36] 10,[37] 23,[38] Frac. I and 107[39] of the Agrarian Law, and on the agreement of the General Assembly held in the community of Santiago Malacatepec, Oaxaca.

FIRST TITLE
GENERAL PROVISIONS

CHAPTER I. ON THE COMMUNITY
SOCIAL AND LEGAL ORIGIN OF THE COMMUNITY

Article 01. The community of Santiago Malacatepec is the owner of the lands recognized through the Reconocimiento y Titulación de Bienes Comunales, on November 1976. However, the community holds the physical, material, peaceful and good faith ownership of a total surface of 16, 344-00 ha, of which only 9,190-90 are legally accredited. Therefore, its legal status and heritage are recognized, as established in Fraction VII of Article 27. Constitutional and administratively, the community makes part of the Municipality of San Juan Mazatlán, Santiago Zacatepec Mixe district, State of Oaxaca, and its limits are thus described:

- NORTHEAST: Community lands of San Juan Cotzocón.
- NORTHWEST: Community lands of San Pedro Acatlán.
- SOUTHWEST: Community lands of San Pedro Acatlán.
- SOUTHEAST: Community lands of San Pedro Chimaltepec.

Article 02. The indigenous community of Santiago Malacatepec is fully composed of indigenous persons belonging to the Mixe ethnic group, settled in the Sierra Norte of the State of Oaxaca, and its main language is identified as middle Mixe. The borders of the community lands can be outlined as follows: starting from a place called Cacalotepeña three-tier milestone, Santiago Malacatepec, San Juan Cotzocón and San Pedro Chimaltepec, Cerro de la Danta, Cerro Temazate or Mazate, Piedra Larga, Cerro Malacate or del Viento, Cerro Quiotepec, Cerro Zarza, Cerro Punto Agudo, Cerro Buena Vista, Punta de Cerro, milestone of Cerro Loma Blanca: Santiago Malacatepec, San Pedro Chimaltepec y Santiago Ixcuintepec, Río Comedero, Cruz de Cal, Arroyo del Palo de Hoja Madura, Loma Pelona, Cerro Madrigal, Loma cuchara, Rio Frijol, it joins Río Horqueta, Arroyo Aguja: three-tier milestone with: Santiago Malacatepec, Santiago Ixcuintepec and San Pedro Acatlán, Cerro Laguna, Cerro Tortuga, Cerro Pelón, Cerro Agua blanca, Cerro

Loma montaña obscura, Piedra Horno, Arroyo Bobo three-tier milestone with: Santiago Malacatepec, San Pedro Acatlán and San Juan Cotzocón, Mojonera Cerro Bobo, Cerro Cachopeña, Cerro Chiltepec, Cerro Pelón o Cerro Truncado, Cerro Grande, Cerro Montaña, closing the line at the place known as Cerro Cacalotepec.

Article 03. The community of Santiago Malacatepec was legally constituted through a Presidential Resolution on 29 November 1976. This same Resolution recognized a surface of 9, 190-90-00 as its property through a Acción Agraria de Reconocimiento y Titulación de Bienes Comunales, benefiting 233 community members according to the census elaborated by SRA, and further 433 persons to be recognized as per agreement of the General Assembly, in accordance with Article 23 Fraction II.

CHAPTER I
ON THE COMMUNITY STATUTE

Article 04. This Community Statute will regulate the socio-economic activities inside the community of Santiago Malacatepec, Municipality of San Juan Mazatlán, District of Santiago Zacatepec Mixe, State of Oaxaca; it is binding for all the community members and it can be reviewed and amended every three years, by agreement of the General Assembly, if requested and agreed by said Assembly.

Article 05. This Community Statute is a legal instrument formally founded on Article 99 Fraction IV of the Agrarian Law and has the aim to regulate, control and rule the socio-economic organization and functioning of the community of Santiago Malacatepec, establishing the rights and obligations of all its members, based on the uses and customs and on the legal regulations of Article 27 of the Constitution and on the current Agrarian Law.

Article 06. This Community Statute is binding and must be fully applied within the communal territory of Santiago Malacatepec, including the settlement of La Nueva Esperanza, and its respective subjects under the Agrarian Law, who are the community members.

Article 07. This Community Statute is recognized by the Community General Assembly, who accepts all its provisions, and this legal instrument will be registered in the National Agrarian Registry so it has legal bearing before third parties.

This community statute has as its main aim to regulate the socio-economic activities and internal organization in order to:

- Regulate the use, conservation and improvement of natural resources.
- Promote, among the legal subjects, the best and wise utilization of their resources through the use of the best work techniques and tools.
- Prevent and combat ecologic abuse and, particularly, forest fires and soil erosion.
- Promote the participation of the community members in the activities so they can improve their living standards.
- Enter in agreements with bodies and offices of the public administration, or with any other body, in order to implement projects aimed at the protection, preservation, rehabilitation and sustainable use of natural resources.

CHAPTER II

ON THE "LA NUEVA ESPERANZA" SETTLEMENT

Article 08. Settlements are populated localities established inside the communal lands of Santiago Malacatepec, with the full approval of the Community Assembly, and make part of the integral life of the community. This community has an only annex, called La Nueva Esperanza, formerly Rancho Escondida.

Articles 09. La Nueva Esperanza, is the only settlement recognized by the community, the Municipal Authority and the Community General Assembly.

Article 10. Settlements will be internally organized by: an Assistant Secretary elected by agreement at the Community General Assembly.

CHAPTER III

OBLIGATIONS OF THE ASSISTANT SECRETARY

Article 11. He will have the obligation of informing all the community members on the agrarian situation in the settlement.

Article 12. He will have the obligation to convene and hold internal community assemblies every six months, on a Sunday, or when so decided by half plus one of the members of the community.

Article 13. He will have the obligation to report to the Commission

of Community Resources and to the Surveillance Council about the agricultural, environmental and forest problems which may occur within the settlement.

Article 14. He will have the obligation to report on his activity every six months, or when determined by the internal assembly of the settlement. Copies of the reports will be submitted to the Commission of Community Resources, to the Surveillance Council and to the Community General Assembly.

Article 15. The requirements to be Assistant Secretary of a settlement are:

Be a legally recognized member by the community.

SECOND TITLE

RIGHTS AND OBLIGATIONS OF THE COMMUNITY MEMBERS

CHAPTER I

ON THE COMMUNITY MEMBERS

Article 16. The requirements to be a member of the community of Santiago Malacatepec are:

To be Mexican, of age, or of any age in case of heads of family, or to be the heir of a community member, living, working and respecting the customs.

To live in the community, save in the case of an heir.

Peasants from other localities will not be accepted as community members.

Article 17. For the effects of the Agrarian Law and the present community statute, there will be considered as community members the men and women who are rights holders, duly accredited by the following documents:

Certificate of Agrarian Rights, issued by the competent authority.

Decision by the Unitarian Agrarian Court.

Recognition through agreement of the Community General Assembly as per Article 23 fraction II and 107 of the Agrarian Law.

To be registered in the general community census and, in turn, in the National Agrarian Register.

To be accepted by the General Assembly.

CHAPTER II

ON THE RIGHTS AND OBLIGATIONS OF THE COMMUNITY MEMBERS

Article 18. The members of the community, when allowed by the capacity and economic-productive development of the community, will have, besides the rights and obligations established in the Agrarian Law, the following:

RIGHTS TO

- Use and usufruct of lands owned by the community, observing to this effect the provisions contained in the Agrarian Law, its regulations, the present Community Statute and the agreement of the Assembly
- Sell or lease their coffee plantations or their trabajaderos[40] to the wives and children of another community member, if authorized by the General Assembly, after notification to the Commission of Community Resources and the issuing of an authorization by the Commission of Community Resources.
- The persons who have served as municipal and/or community resources Secretary will not have to render any other service or participate in communal activities such as tequio, as long as they support the community when faced with a difficult problem, be it of agricultural or administrative nature.
- Designate their successor in their agrarian rights in accordance with Article 17 of the Agrarian Law.[41]
- Every community member may lease his plot to another community member as long as they both have complied with their obligations to the community and there is written recognition issued by the Commission of Community Resources.
- Manage official assistance and capacity-building for agricultural, forest, cultivation and fruit cultivation activities.
- Any community member will have the right to leave the community for a period of up to one year as long as he leaves a representative in charge of his tequio, with the prior approval of the General Assembly or internal authorization by

the Commission or the Secretary of Community Resources.

- According to the uses and customs, community members older than 57 years will be exempt from cooperation, fees, and other obligations save for cooperation in the traditional festivals of the village.
- The community members who have commit a crime will be punished by the competent authority while their plots, lands and coffee plantations will be represented and worked by their wives and children.

OBLIGATIONS TO

- Help and participate in the cleaning of the main street and the drinking water well, to be done every three months
- Help and participate in the cleaning and clearing of the road to the villages of Santiago Ixcuintepec, San Pedro Acatlán, San Pedro Chimaltepec, La Nueva Esperanza, and the community of San Juan Cotzocón, to be done during the first fortnight of the month of February every year and which will be compulsory for all the community members.
- Help in the works of rehabilitation and strengthening of the hanging bridges on the tributaries of the Frijol River, Puente Comedor, coming from the locality of San Lucas Camotlán, to be done every year during the month of February, with the participation of all the community members
- Timely attend and participate in the assemblies legally convened by the representative and surveillance bodies or, when appropriate, by the Assistant Secretaries of Community Resources.
- Participate in the work of conservation, enhancement and protection of natural resources.
- Participate in the communal tasks agreed by the Assembly.
- Help and participate in the community activities of fire control. Persons under age, over 60 years of age, and the sick are exempted.
- Perform the roles or commissions requested by the Assembly.
- Report the General Assembly on their absence for the effects of the present Statute.
- Participate and vote in the General Assemblies, as long as their rights are legally recognized.
- Open fire breaks to avoid forest fires, but only in their plots and not in the forest as a whole.
- Respect the agreements adopted by the community in its General Assembly. To participate in tequio called by the Commission of Natural Resources, the Assistant Secretary and the Municipal Authority (agent) to clean trails and

roads to the plots.
- Participate in the work of cleaning the road to the settlement of La Nueva Esperanza, with all the community members. Half of the work corresponds to each locality (Santiago Malacatepec and La Nueva Esperanza).
- Cleaning of plots and lands.
- All the community members must participate in the cleaning of the limits with the neighboring communities.

Article 19. The community members will have the right to attend the Assemblies, preferably in person. Non attendance will be fined with 10 pesos. The sick will be considered as present.

Article 20. The community members will have the obligation to pay the required financial contributions as long as they have been agreed by the General Assembly and for the tequio they will be paid by attending.

Article 21. The community members can vote and be voted to hold positions of representation and surveillance of the community as long as they comply with the requirements established in Article 107 of the Agrarian Law.

CHAPTER III

ON THE ACCEPTANCE OF COMMUNITY MEMBERS

Article 22. The Assembly has the power to accept as community members, peasants meeting the following requirements:

- To be Mexican, of age, or of any age if head of a family, or heir of a community member.
- To be aboriginal and inhabitant of the community of Santiago Malacatepec and to be working on lands of the community.
- Persons to whom the Assembly has assigned rights on common lands.
- The acceptance will economically or internally enter into force when the community member is 17 years old, while it will formally and legally enter into force when the petitioner is 18 years old.
- To speak and be fully proficient in Mixe language.
- To be born in the community of Santiago Malacatepec.
- Persons from other villages or agrarian settlements will not be accepted as community members.

In all these cases, beneficiaries must comply with the requirements established in Article 15 of the Agrarian Law and in this Community Statute.

CHAPTER IV
ON THE LOSS OF THE STATUS OF COMMUNITY MEMBER

Article 23. The status as community member is lost:

- For the legal granting or transmittal of his rights as community member.
- Relinquishment of his rights, which will be considered as granted to the community.
- By final judgment of the Agrarian Courts so deciding.
- For actions contrary to the present Statute and non compliance of his obligations.
- For unjustified absence from the community for more than a year.
- In case of death.

Article 24. The Assembly, according to Article 23, Fraction II, of the Agrarian Law, will decide on the loss of the status of a community member whenever any of the events described in the former article occurs. The agreement of the Assembly on this issue must be recorded in the minutes register and be inscribed in the National Agrarian Register.

THIRD TITLE
ON THE PARTICIPATORY BODIES OF THE COMMUNITY

Article 25. The participatory bodies of the community are:

I. The Community General Assembly;
II. The internal Assembly;
III. The Commission of Community Resources;
IV The Council of Elders;
V. The Municipal Authority; and
VI. The Assistant Secretaries.

CHAPTER I

ON THE COMMUNITY GENERAL ASSEMBLY

Article 26. The highest authority rests in the Community General Assembly, which is constituted with the attendance of half plus one members of the total of the community members with legally recognized rights (in first announcement) and with those attending, on second announcement.

Article 27. As the decision making body in La Nueva Esperanza, and to respect the custom, internal assemblies will be held, chaired by the Assistant Secretary and the Municipal Agent. The community members of the settlement will attend, meeting every six months, a week before the meeting of the General Assembly.

Article 28. The Assembly may be convened by the Commission of Community Resources or by the Surveillance Council, acting in their own name or by request of at least 20 community members, or the 20 percent of the total community members according to Article 24 of the Agrarian Law.

Article 29. If the Commission for Community Resources or the Surveillance Council do not convene the Assembly within the period of five working days from the date of the request, the petitioners could request the Agrarian Legal Office to convene it.

Article 30. The Community General Assembly will be hold at the administrative center and will be chaired by the Commission of Community Resources, the municipal authorities and the duly accredited public institutions.

Article 31. The Community General Assembly will be ordinarily hold every six months (on the last week of July and the first week of December) with the attendance of half plus one of the total number of community members of the administrative center, and with the attendance of the Assistant Secretary and the Municipal Authority, in accordance with the Agrarian Law and the uses and customs, and will deal with the following matters:

I. Drafting and amendment of the Community Statute.
II. Acceptance and expulsion of community members.
III. Reports from the Commission of Community Resources and from the Surveillance Council, as well as election and removal of their members.
IV. Accounts and budgets, execution of the community financial resources, granting of powers and mandates.
V. Approval of contracts and agreements regarding the use

and utilization of communal lands by third parties.

VI. Sharing of the benefits arising from community activities.

VII. Agreement and authorization, together with the health authorities, of the building of the municipal garbage dump.

VIII. Agree and plan tequios for the cleaning of rivers, water deposits, streets, lands and roads.

IX. Impose sanctions to the community members which do not comply with the obligations and provisions of the present document.

X. It will be within the power of the Assembly to know of and approve the implementation of productive and cultural development projects intended to take place in the community.

XI. Elect the members of the commission to fight against fires.

XII. Know of, debate and approve research projects intended to take place in the community.

Article 32. Matters that have to be considered by all the community members, both from the administrative center and from the settlement of La Nueva Esperanza.

- Community General Assembly for the election of the Commission of Community Resources and Assistant Secretary for community resources.
- Rehabilitation work on the limits with other agrarian localities.
- Cleaning of the road to La Nueva Esperanza, half of the work to be done by each of the two localities.
- Approval and/or amendment of the Community Statute.

Article 33. For all other matters, due to the distance to the annex La Nueva Esperanza, only the Assistant Secretary of Community Resources, the members' representative and, when appropriate, the Municipal Authority, will attend.

Article 34. The Community General Assembly must be convened by the Commission of Community Resources through written notice to be made public at the most prominent places and sent to the settlement La Nueva Esperanza.

Article 35. To hold the Assembly on first announcement, the written notices must be dispatched in no less than eight and no more that fifteen days time. If the majority of the community members do not attend on the first announcement, a second announcement will be immediately dispatched, and the Assembly will be held in no less that eight days and no more than thirty days time.

Article 36. Regarding the announcement in the settlement, this will be done in accordance with the uses and customs.

CHAPTER II
ON THE COMMISSION OF COMMUNITY RESOURCES

Article 37. The Commission of Community Resources is the executive body to implement the agreements of the Assembly, and is in charge of the representation and administration of the community.

Article 38. It will be elected every three years at the Community General Assembly. The election will also be attended by the community members of La Nueva Esperanza and the Council of Elders.

Article 39. The Commission of Community Resources is composed of a President, a Secretary and a Treasurer, and their respective alternates.

Article 40. The Commission of Community Resources will have, besides those established by the Agrarian Law, the following functions and attributions:

- To keep the general community census into which the basic data of each community member will be entered.
- To propose the Assembly the update of the community census, at least every two years, with the approval of the Assembly and the inscription in the National Agrarian Register.
- To represent the community on agrarian, forest, environmental and organizational issues.
- To manage, under the SEMARNAT, SEDAF and IEEO, the grants for cedar plantations to reforest the damaged areas.
- To manage financial and material support for the community, regarding programs such as PROCAMPO y PROGRESA, for the benefit of the community.
- To visit, every three months at the least, the settlement of La Nueva Esperanza, together with the Surveillance Council, to know about the existing problems.
- To propose the Assembly the update of the Community Statute every three years, at the beginning of the ordinary session.
- To issue the appointment of the elected Assistant Secretaries for the settlement.
- At the beginning of each mandate, to update the general community census and submit it to the Assembly for its approval.

- To timely coordinate the tequios and other activities agreed at the General Assembly.
- To collect the fees decided by the Assembly.
- To visit the settlement of La Nueva Esperanza every six months to know their needs.
- To coordinate the work of clearing of the limits, every twelve months.
- To apply the sanctions adopted by the Assembly and collect the fines agreed by the Assembly.
- To report yearly on its activities to the plenary of the General Assembly.
- To comply and enforce the provisions in this Statute.
- To subscribe agreements on limits with other agrarian localities, with the support of the Agrarian Legal Office.
- To report on its activities to the Plenary of the General Assembly in the first week of December.

CHAPTER III
SURVEILLANCE COUNCIL

Article 41. The Surveillance Council is the body in charge of supervising the actions of the Commission of Community Resources. It will be composed of a President, a First and Second Secretaries, and their alternates.

Article 42. The Surveillance Council will be elected every three years by the Community General Assembly.

Article 43. The Surveillance Council has the duty to supervise the compliance with the agreements adopted by the Assembly regarding community resources and to supervise the members of the Commission and the Assistant Secretary of each settlement.

Article 44. The functions of the Surveillance Council are as follows:

I. Attend the Assemblies.
II. Review the accounts of the Commission of Community Resources every year.
III. Supervise the compliance with the activities commissioned by the Assembly.
IV. Convene the Assembly when the Commission is not doing it, according with the provisions of the Agrarian Law.
V. Report to the Commission and to the Community Assembly on the members who do not comply with their tequio.

VI. Survey the fields and plots when certificates of ownership must be granted.
VII. Report to the Community Assembly on the foreigners or community members who are using the community resources without its authorization.
VIII. Coordinate with the Assistant Secretaries the supervision activities of the limits of the community.
IX. Report to the Assembly on any event discovered during the surveillance.
X. Any other task mandated by the Assembly.
XI. Survey the fields and plots when certificates of ownership must be granted or in case of conflict among community members.
XII. Collect information from the Assistant Secretary and denounce to the Assembly any foreigner who is using the resources without its prior authorization.

CHAPTER IV

ON THE MUNICIPAL AUTHORITY

Article 45. The assemblies held in the settlement will be attended by the Municipal Agent or by a representative of the Commission of Community Resources, by invitation of the Secretary, and they will chair and direct the meeting.

CHAPTER V

ON THE ASSISTANT SECRETARY IN THE SETTLEMENT OF LA NUEVA ESPERANZA

Article 46. In accordance with Article 105 of the Agrarian Law, the Assembly of each settlement will appoint as representative an Assistant Secretary who will coordinate his activities with the Commission of Community Resources and who must respect the agreements adopted by the Assembly.

Article 47. The Assistant Secretary of La Nueva Esperanza, after his election by the Assembly, must go before the Commission of Community Resources, who will issue his appointment.

Article 48. The mandate will be for three years, and will be appointed by the General Assembly held in Santiago Malacatepec, with the attendance of all the members of the community.

Article 49. The Assistant Secretary of Community Resources will have the following functions:

I. Attend the settlement assemblies on all the matters related to his work.
II. Survey the implementation of and compliance with the Community Statute in the settlement.
III. Convene the ordinary Assembly every six months, or when an important matter makes it advisable.
IV. Report to the Commission of Community Resources on the different problems among the community members.
V. Also report to the Commission of Community Resources on all the Assembly agreements adopted in the settlement.
VI. Report to the Commission of Community Resources on land leases in the settlement.
VII. Convene the community members for tequios, and works for the cleaning of rivers, streams, water wells and roads with right of way.
VIII. Know of and report to the Commission of Community Resources and to the Surveillance Council any conflict with members of other settlements.
IX. Submit minutes of the assemblies held in the settlement.
X. The Assistant Secretaries are not allowed to buy lands during their term.
XI. Solve the problems in the community and report to the Commission of Community Resources.
XII. Know about the cession on rights in the community.
XIII. Appoint the health commissioners.
XIV. Plan tequios in each settlement.
XV. Support the Commission of Community Resources in the field research needed to document the certificates of ownership.

FOURTH TITLE

ON THE ELECTION AND DISMISSAL OF THE REPRESENTATIVE AND SURVEILLANCE BODIES

Article 50. To be a member of the Commission of Community Resources or of the Surveillance Council, it is required:

I. To be a community member recognized and accepted by the Community Assembly.

II. To be a native of the Santiago Malacatepec community.
III. To be 100% proficient in Mixe language.
IV. To be able to read and write.
V. To be well versed on the needs and problems of the community.
VI. To have been a resident of the community for more than 5 years without interruption.
VII. Not to have a police record.
VIII. Any other requirement established by the Agrarian Law.

Article 51. The Commission of Community Resources and the Surveillance Council of Santiago Malacatepec will be elected at the Community General Assembly without the intervention of political parties or non-governmental bodies.

Article 52. The Assistant Secretaries of Community Resources must, besides the aforementioned requirements:

Be recognized community members in the settlement.

Be appointed by the settlement Assembly and recognized by the Community General Assembly in the administrative center, and have the appointment issued by the Commission of Community Resources.

Article 53. The dismissal of the members of the Commission of Community Resources and of the Surveillance Council can be agreed at any time, by secret vote, by the Assembly convened to that effect or convened by the Agrarian Legal Office following the request of at least the 25 percent of the members of the community.

Article 54. The Assembly and the community members must prevent persons from outside the community of Santiago Malacatepec to log timber.

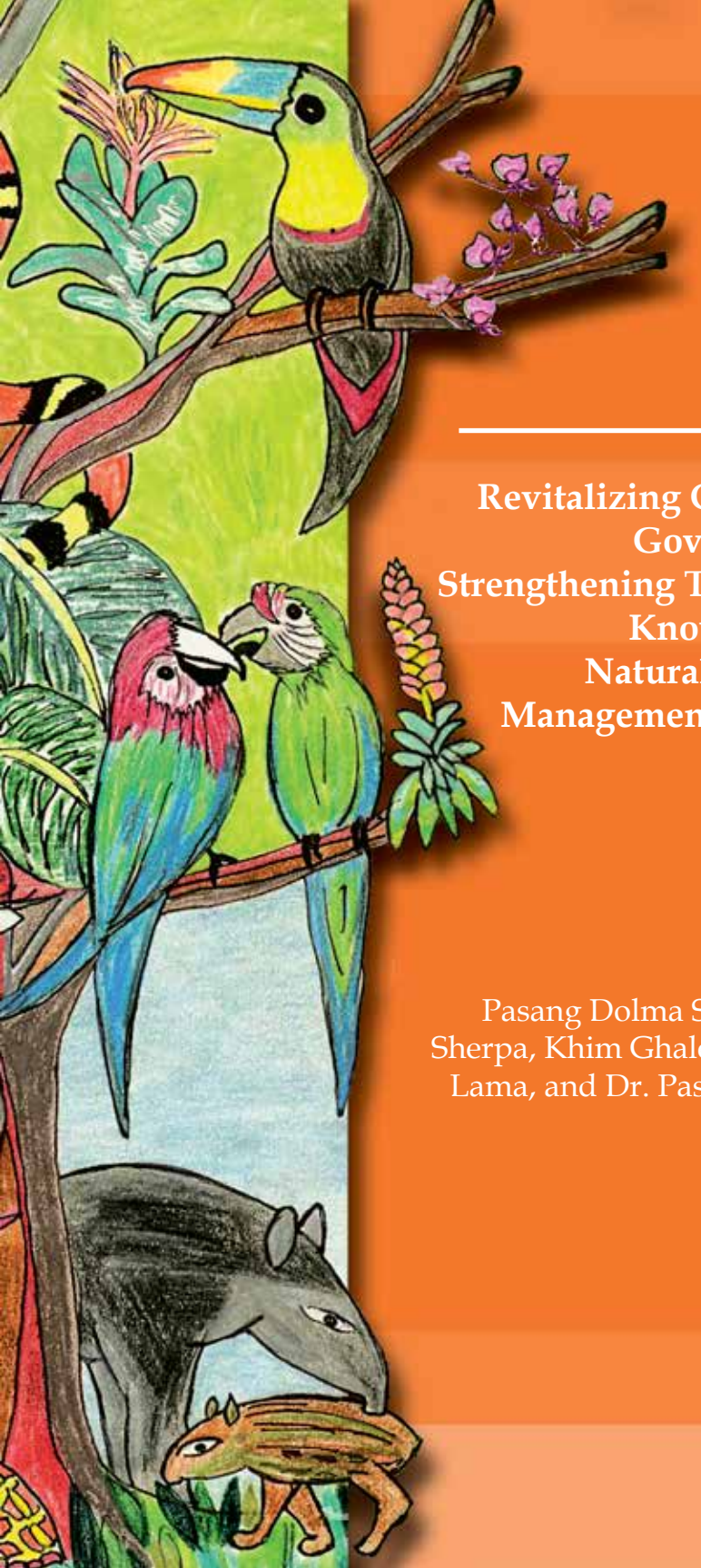
FIFTH TITLE
LANDS OF THE COMMUNITY

AGRICULTURAL PLOTS
CHAPTER ONE

Article 55. When a person wishes to sell his plot on community land, he must report to the General or internal Assemblies for their con-

sideration, and may remain as a leaser without being a community member.

Article 56. Ownership of a plot is proved by the ownership document issued by the Commission of Community Resources and the Surveillance Council.



4

Revitalizing Customary Governance & Strengthening Traditional Knowledge on Natural Resource Management in Nepal

By
Pasang Dolma Sherpa, Gelu Sherpa, Khim Ghale, Kunshang Lama, and Dr. Pasang Sherpa[1]

General Background

One of the features of Nepal is its multiethnic and multicultural diversity. Nepal is a secular democratic republic country with diverse biodiversity and geographical landscape. Prior to the "territorial unification" under the internal colonization by the then King of Gorkha in 1768, different indigenous nationalities had their own defined homeland and self-rule. It was during this period that different indigenous nationalities had evolved and sustained different voluntary institutions, which are the main body of knowledge and skill transfer.

After 1768, the rulers imposed the policy of domination of one caste, one language, one religion and one culture over many others. Unfortunately, the Nepalese people had to go through different various forms of autocratic rules for centuries. Despite the predatory state, most of the indigenous nationalities sustained their ethnic identity, language, religion and culture due to underdeveloped transportation and communication system in the country. Also, it is a historical reality that rapidly expanding process of globalization and intensification of the previous policy of cultural violence through the domination of one caste, one religion, one language and one culture, and the very process of marginalization, abject poverty and isolation from a lack of transportation, communication and education, have indeed helped, on the one hand, to maintain some of the traditional local governance intact, but on the other hand, many of them were either lost or are at the verge of extinction.

With an area of 147,181 square km, Nepal encompasses a diverse landscape in the Himalayas in South Asia, of which forest cover is the most conspicuous. The national forest inventory (NFI 1999) had shown that Nepal had a forest area of 5.8 million ha (40% forest cover) that consisted of 4.2 million

ha (29%) of forest and 1.6 million ha (10.6%) of shrub land. These forests are distributed across the three geographical regions of the country. The middle mountains or hills have about 48 percent of the forest area and the plains have about 25 percent. The remainder is distributed in the high mountains of the Himalayas.

In Nepal, there is no exact data how much of the forests have been conserved and managed by indigenous peoples. Nepal is home to many indigenous communities, many of whom are forest dwellers and are thus heavily dependent on forests. A greater portion of the forests in the country are owned, controlled, and conserved by indigenous peoples. Their symbiotic relationship of forest resources, which is based on their socio-cultural, spiritual and livelihood perspectives, has been the main synergy for the conservation of these forests despite different acts and regulations imposed by the state.

Climate change, one of the burning issues around the globe today, has jeopardized the life of indigenous peoples particularly those living in developing countries, including Nepal. Since they have been settled in the high mountain valleys, along the river banks, or nearby dense forests, they are directly affected by the consequences of climate change. The climatic and ecological devastation brought about by the unsustainable development practices espoused by the developed, industrialized countries are affecting more the life of indigenous peoples whose practices are genuinely eco-friendly.

The repercussions of these industrialization and development activities have been a malediction to the lives of indigenous peoples in Nepal too. These changes have direct and indirect, and profound and disproportionate adverse impacts on the very survival and well-being of indigenous peoples—on their culture, human and environmental health, human rights, traditional livelihoods and sustainable economic systems, food system and food sovereignty, and local infrastructure. It is increasingly clear that the lives, existence and livelihoods of these peoples are highly at risk; and the victims of climate change are now realizing its causes and its impacts.

In this context, detailed studies on the traditional and customary practices of indigenous peoples, particularly in the

conservation and management of forests and forest resources, is very essential. As the traditional practices and governance systems of indigenous peoples are not only directly linked to their socio-economic life but also to their identity and existence, assessment of these practices, revitalization, documentation and promotion are very exigent. Moreover, these traditional practices, based on their empirical knowledge and skills, have played a very significant role in the conservation and sustainable management of forests and its resources, which have considerable contribution in the mitigation of the adverse impacts of climate change.

This research was conducted to identify the traditional practices and customary laws of indigenous peoples particularly in conservation and sustainable management of forests in Nepal. As there are many indigenous communities living in different ecological and geographical regions in the country, during the study attempts were made to include the practices of different communities from the Mountain, Hill and Terai regions as examples. Moreover, for more detailed study at field level, a case study was conducted in the Gurung community in Khasur Village in Lamjung District, mid-western region of Nepal.

Objectives

The study aimed to identify, illustrate and reinforce the existing traditional practices and customary governance systems of indigenous peoples, particularly in the conservation and sustainable management of forests, with particular concern on the role of women. The specific objectives of the study were to:

- Identify distinct traditional practice/s and tenure-based customary governance systems of indigenous peoples in a particular forest ecosystem, with particular concern for women;
- Identify particular strategies exercised at the local level to strengthen traditional practices and customary

governance system;
- Identify obstacles and threats to the traditional practices and customary laws;
- Make recommendations to strengthen, revitalize, and sustain the traditional practices and customary governance systems.

Conceptual Framework and Methodology

The study was conducted based on the case study guidelines given by Tebtebba. As per the guidelines, the ecosystem-based participatory approach and SWOT[2] analysis on relevant issues were also exercised to reach to the conclusion of the study.

The research was conducted by the local indigenous research associates and resource persons in collaboration with facilitators and documentors who were also the members of the indigenous community. As part of the project, the local research associates and resource persons were given training for conducting case studies. They were given the responsibility and opportunity to conduct the research in order to empower them and to genuinely reflect indigenous peoples' perspectives on forests, traditional knowledge and customary institutions. This therefore ensured joint implementation of the case study with villagers with a long-term view that indigenous peoples will soon use the acquired skills, techniques and innovations for their own gain, especially in the context of REDD Plus.[3]

This study is based on qualitative data; however, some quantitative data have been collected during the study. Besides the qualitative primary data, all the available and related data were consulted, and these data were analyzed thoroughly. More specifically, FGDs on the related issues were conducted intensively in the community to elicit peoples' perspectives. Intensive interviews with 20 key informants were conducted to fill up the gaps in information obtained from the secondary data, and the primary data from FGD. The key informants—both male and females from different ethnic groups

having profound knowledge and experience in the areas of the study—were selected by quota sampling. For verification and updating the baseline data—the demographic information, infrastructure and forest inventories—observation of the main area of the community forest was conducted. All the study team members including the local people participated in the observation.

The study was carried out in a participatory approach by mobilizing local resource persons and research associates. Twenty local participants were given training on "Conducting case studies related to forest and other natural resources" prior to the field study. From the training participants, five were selected as research associates, including two females, and five resource persons, including two females, conducted the case study. The baseline data of the entire community was also updated during the study. Moreover, intensive desktop review of the available literature on the related issues was done before conducting the field level study.

Indigenous Peoples and Customary Governance Systems

Indigenous Peoples of Nepal

Nepal is a small landlocked country—surrounded by Tibet, the autonomous province of China in the north and by India from other directions. Despite its small size, the country is diverse in its geography, ecosystem, biodiversity and cultural heritage. From geographical perspectives, the country has been categorized into three regions: the Himalaya which covers 15 percent, Hill which covers 68 percent, and the Terai region covering 15 percent of the total land area.

It is a multiethnic and multilingual country with a multitude of geographical topographies and biological diversities.

It is the home of many indigenous nationalities known as Janajati and the Nepal government has officially recognized 59 ethnic communities in 2002. Indigenous peoples are given the status of indigenous nationalities by Act of National Foundation for Development of Indigenous Nationalities (NFDIN).[4] According to the national census in 2011, 26.5 million people in Nepal are indigenous or about 35 percent of the total population, which includes only the 59 indigenous nationalities. The census has recorded 125 caste/ethnic groups including indigenous peoples, 10 religious groups and 123 different national languages. According to the latest study, there are 81 indigenous groups in Nepal (TFRIN 2010).[5] Some of the linguistic studies, however, have mentioned that 127 different languages are spoken in Nepal; among them 124 are indigenous (Ethnologue 2009).

Indigenous peoples have been living across the country for ages. They had their own independent states with their collective ownership over the land, water and forests until the territorial unification of Nepal by Prithvi Narayan Shah in 1768. However, various acts, regulations and programs related to land, forest, and other natural resources formulated by the rulers have deprived indigenous peoples of their rights to use their land and forests.

The indigenous peoples in Nepal reside in different geographic belts and practice their traditional lifestyles. They are closely attached to the natural resources such as forest and other resources. The geographical regional basis, 17 indigenous groups[6] live in the Himalayan region, 24 in the Hills,[7] seven in the inner Tarai,[8] and 11 in the Tarai region.[9]

Following the restoration of democracy in 1990, initiatives were taken for the development and promotion of rights of indigenous peoples both by the state and indigenous communities. The Constitution of Nepal 1990, however, failed to address some major concerns of the indigenous peoples. After the historic revolution in 2006, the Interim Constitution of 2007 was able to address some of these issues by defining the country as independent, secular, inclusive, democratic, and federal. This has raised considerable hopes of the indigenous nationalities for a better future. The new Constitution is ex-

pected to eliminate some of the discriminatory practices clandestinely practiced by the state and remove all the economic and social inequalities the indigenous peoples were subjected to.

The democratic atmosphere created following the end of dictatorial rule of the Ranas in 1951 greatly encouraged the indigenous peoples to assert themselves for a dignified and respectful place in society. This did not happen as easily as was anticipated due to various reasons. It was only after the Panchayat system was dismantled in 1990 that the indigenous peoples were able to become more assertive in demanding justice hitherto denied to them by the state. One of the major demands of the indigenous peoples is ethnic autonomy with the right to self-determination within a federal structure in the new Constitution.

Traditional Management Systems of Forest, Pastoral and Agricultural Land

Traditional forest and grazing land management systems have a long history in Nepal, particularly in the mountain and hills. These systems were operational under different types of institutional arrangements at different times and locations.



Cattle movement is controlled by NAWA. Photo credit: NEFIN

Nawa system of Sherpa

In the Khumbu region of Solukhumbu and Rolwaling of Dolakha Districts, the Sherpa community has an institution called "Nawa" that controls the use of village land and forest for the purpose of agriculture and cattle raising. It was instituted to manage the agricultural land, pasture land and forest in the particular area. Haimendorf (1964) mentioned that the function of Nawa is to hold a balance between the needs of the Sherpa's' traditional economy and prevent carelessness or egotism of individuals damaging the interests of other members of the community.

There are two types of Nawas: Osho Nawa and Shingi Nawa. The main task of Osho Nawa is to coordinate the villagers' agricultural activities and to prevent damage to crops. The Nawas are elected by the villagers as Lawa[10] unanimously. Soon after their selection, the new Nawas call all villagers to a meeting known as Yul-thim[11] (village meeting). The meeting decides when to move their cattle to higher pasture lands, where to move and how far from the community, when to bring down to the lower elevation, when to make the fence to block the cattle from entering the lower elevation to protect the cultivation, etc. The meeting also takes decisions over the possible breach of relevant rules.

As per the custom, the Nawa banishes all cattle from the village soon after the Dumji festival in early July. Within certain days after the Dumji, no yak, cow, sheep and goat remain within the prohibited area, as proclaimed by the Nawas. Anyone who does not remove ones' cattle within the specified time is liable to a fine.

While the ban on the keeping of cattle within the village land lasts for a few days after the Dumji until after the harvest, other restrictions to be enforced by Nawa apply only for the period of the growth of the crops. During this period of growth, no one enters a field, whether his own or that of other. Not even the people who milk and churn can come close to the fields. Anyone who works against these rules can be fined by the Nawa and such a fine paid either in cash or in form of beer called Na-chhyang.[12]

At the end of August, the Sherpa herdsmen gradually start shifting down from the summer grazing land. In the beginning of September, they pasture their animals a little above the high-altitude fields of the cultivation lands until the fields in these areas have been completely harvested. Soon after the harvest in this area, the land in these areas is used for grazing until grass and crops (barley, buckwheat and potatoes) in the village are harvested. Finally, the cattle are brought back to village and kept in the house.

The responsibilities of the Nawa are: to manage the pastures and agricultural land, to fine rule-breaching families or individuals, and to control the movements of animals which come from outside their territory.

The Shingi Nawa deals with the husbanding of the wood and timber resources in the community. Like Osho Nawa, they ostensibly derive their mandate from a village meeting while their appointment, in reality, is based on consultations of a comparatively small group of influential men in the community.

The Shingi Nawas are responsible for the protection of the reserved forest close to the village. About three to four men are appointed for this purpose as regular vigilance is required to prevent wood cutters from encroaching forest growth in the prohibited areas. It is within the Shingi Nawa's power to permit limited felling in the protected forest for special purposes, such as house building and funeral pyres.

The Shingi Nawa are entitled to spend a small portion of cash collected from the rule breakers for food and drinks in village meetings called to settle the rule-breaching disputes. The meeting, on the basis of the offender's mistake, either imposes the fine in cash or gives one an excuse. The remaining fine balance is either given to the funds of the village monastery or used in public works, such as building trails or bridge.



Labor contribution of Gonpa. *Photo credit: NEFIN*

Land, Forest and Pastureland Management System among the Dolpos

The Dolpos, an indigenous peoples' group residing in Dolpa District of Nepal, have their own age-old traditional systems—Chikyap, Gowa, Ghapu and Dhebu—to manage land, forest and pastureland. With King Mahendra introducing one-party Panchayat system in 1960, the Chikyap and Gowa traditions went out of practice while the Ghapu and Dhebu are still in practice.

In Dolpo language, both the Ghapu and Dhebu mean the key or senior person of the village. Some Dolpo villages practice the Ghapu while others exercise the Dhebu. Under the Ghapu system, a five-member Hyulpon Chhokpa, a committee led by the Ghapu, is formed. The members in Dolpo language are called Rolbu, which literally means the supporters.

Ghapu and Dhebu are selected house-wise each year while the Rolbu are selected through a village assembly. The committee is formed in the month of April-May just before the villagers begin their annual farming. The committee is

responsible for the management and protection of land, forest and pasture land in the village.

There are five types of traditional laws exiting among the Dolpo communities. The Rilungchasid works to manage the forest and land while the Rigya lugya protects wild animals from hunting and poaching. Cha-thim looks after the management of pastureland, the Ngo-thim works for the management of crops, and the Dhik thim works to implement fine and penalty to the law breakers.

The Dolpos make the laws through a village assembly in the presence of their elders and lamas. The members of Hyulpon Chhokpa implement the laws. The Hyulpon Chhokpa secretly appoints two secret agents called Sowa in order to report the names of the people who violate the law.

In order to manage the pasture and pasturelands, the Dolpo people manage their pasturing based on the seasons. Summer pasture land, called Yarsa, exists for two months—July and August, while winter pasture land, called Ghunsa, runs for three months starting from January till March. Soisa, the spring pasturing, exists for the months of April, May and June, while the Sarad pasturing runs for the months of October, November and December. The people breaking the pasturing rules are brought to justice.

If the cattle damage the crops of any villager, the owner of the cattle is fined based on the extent of damage. For example, even if a bigger animal like a yak merely steps into the farmland without damaging the crops, the owner is subject to pay one kilogram wheat or barley. If such animal is a sheep or a ram, the master has to pay one-fourth of the grains paid for the bigger animals. In Dolpo language, such a penalty is called Nepri. The penalty made for damaging the near-to-harvesting plant is called Thokkyon. Such a penalty is made by the members of Hyulpon Chhokpa.

Likewise, the Dolpo people have traditional laws of penalizing people who kill wild animals, fell or destroy trees or plants, and set fire in the jungle. The amount collected from the law breakers and offenders is kept in a fund and spent for religious works such as constructing Stupa and Chaitya or social work such as constructing irrigation canals and roads.

Kipat System of Limbu

Land ownership is a very fundamental aspect of the Limbu community, not only for their survival but also for their socio-cultural existence. Until 1964, the Limbu community had historically held on to a land concept known as the Kipat system.

Kipat is a communal form of land tenure under which land is held by an indigenous community. It constitutes any land, such as paddy fields and pastures, as well as forest, water and mineral resources. By tradition, indigenous communities of Nepal were self-ruling and their institutions were based on a communal system of ownership known as Kipat. Indeed, it was a very significant system of a tribe's autonomy in Nepal. Culture, customary laws and institutions were built on the basis of this communal system of ownership of resources. Though members of the community had the right to use land, land ownership was vested not in the individual but rather in the group or for the whole community.

This concept of land use and ownership had continued even after the invasion on Limbuwan[13] by King Prithvi Narayan Shah in 1774. Because of the "integrationist" approach of the state, the peace treaty, which united Limbuwan with Gorkha, inevitably led to the conflict between the Limbus and the successive governments dominated and backed by the Hindu Bahun-Chhetri community. The economic and political dominance of the Hindu Bahun-Chhetri is a product of the creation of the Hindu monoculture nation-state that continues to serve as its patron in Nepal. Despite the conflict, the Limbus still managed to enjoy some local autonomy under the headman called Subba. The Subba in the Limbuwan area had different administrative and judicial powers granted to them after the peace treaty.

The integration of the Limbus into the present Nepal state likewise ushered in the introduction of the Raikar[14] system, which directly undermined the principles of the Kipat system. This alienated the Limbus from their traditional customary governance system because the Raikar system declared that all lands belong to the state and not to a particular community.

This process of alienation of Kipat land right and, eventually, the dissolution of the Subba continued until 1964 when the Land Reform Act was introduced in Nepal. However, the Kipat system had prevailed until the latter half of the 1970s. In the last 20 years or so, the state, by introducing the Land Reform Act, had virtually set aside the 1774 treaty, which was forgotten by the Limbus. The state, by registering the Kipat land in the name of individual Limbu or non-Limbus, has practically nullified the peace treaty

With the modernization drive in the latter half of the 20th century, the state exerted its efforts to bring uniformity in land tenure system by abolishing the Kipat and other forms of land tenure, particularly Rakam,[15] Jagir[16] and Birta.[17] This process brought all the lands under the jurisdiction of the government and lands were registered as Raikar lands in the name of individuals who petitioned for ownership. Forests, pastures, wastelands, and other natural resources were nationalized during the period of 1956 to late 1970s. Internal migration became rampant throughout the 20th century and culminated during the period of 1950s to 1980s.

Communal ownership of lands like Kipat system is not in practice today as such system was abolished by Land Reform Act, 1964. It was completely abolished by the cadastral survey in Kipat areas of Limbuwan, far eastern Nepal which was completed by 1992. The Kipat land tenure system was also accompanied by the indigenous system of local autonomous governance, demonstrating close historical linkage between indigenous land tenure system and indigenous system of governance, which also ended with the abolition of Kipat system.

Riti-Thiti System of Magar

The Tarami Magars have socio-cultural practices known as the Riti-Thiti system. This system is effective and appropriate in managing local resources even in the changing context of contemporary local societies (Gurung 1999).

The main occupation of the Tarami Magars is agriculture. They depend on forest resources for their subsistence

economy. Until the introduction of Panchayat system in 1961, natural resources were controlled and regulated through the council of village heads called Sat-thari. However, Sat-thari no longer exist in Tara Khola. Despite this, some specific clans and their descendants are still addressed by their original titles of Sat-thari and they still play vital roles in village affairs.

Originally, the council of the Satthari was composed of six officials, which was later expanded to seven: the Mukhiya (village head), the Chautare (member of village nobility), the Jethabuda (village elder), the Thari (decision maker), the Baidar (clerk or record keeper), the Burauli, and the Katuwal (messenger). The members of the Satthari were elected partly on a democratic basis, but mostly on a hereditary basis. Each of them represented a specific clan group. Thus, traditionally Mukhiya came from the Arghanshi, the Chautare from the Kanchhibare Arghamshi, the Jethabura from Roka, the Burauli from the Rupani, the Thari from the Bajhangi, and the Baidar from the Kanchhibare Roka clan.

The council of the Satthari was the main legitimate political and judicial body of the village society, and it served a



Indigenous community entrance gate. Photo credit: NEFIN

wide array of public interests covering the socio-economic and politico-religious life.

The village head, assisted by the members of the Sat-thari, was a powerful authority at the local level and played a key regulatory role in controlling and distributing natural resources in the village. The village head derived his authority from the council of Sat-thari, and his authority was legitimized on the basis of land allocation to the individual household. The village head called the meeting of the Sat-thari to discuss community rules with regard to resource distribution, utilization and management. The head of each household would participate in the meeting to identify sanctions for community rules.

The participants would discuss various rules, such as when to open and close the fence of grazing lands, where to send cattle for grazing, where to clear forests for shifting cultivation, and where to go for fuel wood and fodder collection. After an open discussion, the village head would give the final decision on the community rules of resource use for the year. This ceremonial meeting was called Chhape basne, literally "to sit and put a seal on the community rules." On the same day, the grazing lands for the cattle, called gaiko panjani, were decided upon and demarcated for the year by throwing locally made corn breads in four directions.

The Tarami Magars distributed their land and forest resources among their kin or clans in accordance with the institutional arrangements based on the customary rules. The main customary rules included ideas about shifting cultivation, rotational grazing, and seasonal use of natural resources.

The customary rules, besides these, were also imposed equitably among different clan groups to distribute honey hunting places and fishing pools. The distribution of resources was not a permanent allocation; rather, it would change periodically.

Mirchang System of Thakali

The Marphatan Thakali is one of the indigenous communities primarily living in the southern part of Mustang District adjoining the Thakalis of further south. They are divided into four clans such as Hirachan, Lalchan, Pannachan, and Juharchan.

The Mirchang is a 15-member committee of a traditional voluntary organization of the Marphatan, also called Panchgaule Thakali community. It is the traditional village council of the community. The Mirchang is the council of each Thumin (Mukhiya or the headman) from each clan, with the members consisting of 10 Chhowa (Katuwal/messenger), one Mhiyan (chief Katuwal/messenger), and one Dhunge (accountant). The Mirchang is formed annually in July.

After the successful completion of their tenure, the council members of the Mirchyang have to take an oath that he or she has not done any activities against the well-being of the entire community. The members of the council have to serve voluntarily for one year; but the Chhowa (Katuwal) helper of the Thumin share in the income generated from the water mills in the community. Similarly, when there is breach of rules and regulation by any member of the community, he or she is charged some fines in the form of crops or cash and half of such fines can be utilized by the council members. The rest of the fines go to the community fund for development activities.

The main responsibility of the Mirchang was to manage the natural resources such as forest, herbs, grass, pastureland, and other edible forest resources. It fixes the date and duration to shift cattle and collect forest resources. For instance, according to rules and regulations, the local community is not allowed to enter and extract any forest resources from the Chhartang forest for six months during rainy season, and from Tamkang forest for six months in the winter (Rai 2011).

In case of breach of rules, the offender is charged fines. Similarly, if any community member has a complaint against a council member, this will be discussed and decided in the council meeting. Besides the responsibilities of resource management, the Mirchang is the only institution that is respon-

sible for infrastructure development, regulation of justice, as well as other social activities in the community.

The Thumin (Headman) system of the Mirchang was changed into the Subba system in 1938, which was also abolished after the introduction of Panchayat sytem in 1969.

Legal Status of Customary Laws of Indigenous Peoples

In the history of indigenous peoples in Nepal, the Constitution of Nepal 1990, introduced after the restoration of multi-party democracy, recognized the indigenous peoples for the first time by declaring Nepal a multiethnic, multilingual, multireligious and multicultural democratic country (Constitution of Nepal 1990: Preamble). The constitutional provisions were made to ensure the linguistic and cultural rights of indigenous peoples. After the historic revolution in 2006, the Interim Constitution of Nepal 2007, in addition, declared Nepal a secular and federal democratic state, giving more recognition to indigenous peoples (Interim Constitution of Nepal: Preamble). However, these rights ensured by the Constitution have not yet been implemented due to the lack of proper acts, regulations, and undefined administrative mechanisms.

The successful completion of the constitution drafting process is a milestone not only to address the root causes of a decade-long people's war, which ended through a peace deal in November 2006, but also to guarantee the rights of indigenous, marginalized, and minority communities in Nepal. The forthcoming new Constitution[18] should determine the future of indigenous communities—ensuring their rights and prosperity. Indigenous communities are therefore continuously putting pressure to the major political parties and the concerned authorities to ensure the rights of indigenous peoples in the new Constitution.

In Nepal, the move towards a rights-based approach to development in indigenous communities started only after the restoration of multiparty democracy in 1990. After the

historical political change in the country, indigenous leaders were able to enjoy the administrative and judicial rights. Judicial rights included the rights to dispense justice, except those dealing with the cases of Panchakha—five serious crimes punishable by death sentence, life imprisonment, and shaving of the head, the degradation to a low caste, banishment, and mutilation that are exclusively thought to be under the jurisdiction of the monarch. But their power was gradually eroded as the state apparatus became more powerful and became successful in penetrating deep into the villages in the recent decades. Locally-elected bodies and their leaders are replacing traditional indigenous governance institutions and their leaders since the last half a century.

The first National Code of 1854 had respected and recognized some customs or customary laws of the Adivasi Janajati (indigenous and tribal peoples or indigenous nationalities) to a considerable extent. In applying national laws and regulations to all the peoples, there was no discrimination among them in many aspects. But such customs or customary laws were gradually undermined in the later period when the state became more desperate to confine the rights of the people under an autocratic regime. In the so-called nation-building mission in the latter half of the 20th century, monocultural policies were rigorously imposed on a multicultural society, further eroding customs or customary laws of indigenous peoples, making these virtually non-existent in the formal laws. However, these were retained in the ways of the life, community rites and rituals and social practices or social transactions of indigenous peoples.

The national legal system, to some extent, recognizes indigenous cultural practices as it applies within the concerned community. Customs or customary laws such as those relating to marriage institution (polyandry, levirate, sororate, cross-cousin, incest, endogamy, exogamy, divorce, etc.), observing ritual pollution and mourning during death period of close relatives, celebrating traditional festivals and other cultural practices, managing community/personal Guthi (traditional institution similar to a trust with land alienated by individuals or communities to finance the performance of religious

or charitable functions), community mediation, etc. are still recognized by the existing national laws.

In the existing law of Nepal, people of such communities have the right to retain and exercise their own customs and institutions to the extent that it is consistent with the national legal system. Some laws, such as the Trust Corporation Act, 1976 and the country Code (Muluki Ain), 1963 contain several provisions on customary practices that are recognized under the national law and Constitution. These include the following: Chapter on Trust, Chapter on Rape, Chapter on Marriage, Chapter on Adal, etc. The special Trust Corporation Act aims to regulate the trust under the government or governmental institutions. Any disputes arising in the exercise of their customs and institutions can be solved among themselves, and if this fails, they have right to involve the national legal system. The Constituent Assembly is deliberating on the right of the Adivasi Janajati to retain their customs and institutions consistent with internationally-recognized human rights and principles of gender equality.

The Government of Nepal has ratified many international conventions and treaties. These include the International Labor Organization Convention No. 169 (ILO 169) in 2007 and voted for the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) in the same year. Similarly, it has ratified the International Convention on the Elimination of All Forms of Racial Discrimination (ICERD); International Covenants on Economic, Social and Cultural Rights (ICESCR), the International Covenant on Civil and Political Rights (ICCPR), the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), the Convention on Biological Diversity (CBD), and the UN Framework Convention on Climate Change (UNFCCC). On these grounds, therefore, Nepal is bound by international laws as it is a signatory party to a number of international conventions, covenants, and declarations.

The indigenous peoples in Nepal are therefore pushing for constitutional, legal and administrative guarantee of their ownership and control over their water, land, forest and mineral resources as stipulated by ILO 169 and UNDRIP.

They are also engaging the government in the formulation of policies, plans and programs related to climate change and REDD Plus.

Indigenous peoples of Nepal have an inseparable relationship at varying degrees with the natural resources, underpinned by their religious, cultural and socio-economic perspectives. This relationship has been proven to be very useful in conserving biodiversity around the globe. They have developed a very sophisticated system of traditional knowledge, practice and way of life. Traditional habitat of indigenous peoples play a crucial role in the management of biodiversity and natural resources and have used these resources sustainably for their culture, livelihood, health and well-being.

The government has, however, failed to recognize these customary laws and traditional practices. On the contrary, the government has imposed laws, acts, rules and regulations to supplant and restrict such practices. Though the Government of Nepal has ratified many international conventions as stated above, no legal and administrative polices have been formulated to implement the rights of indigenous peoples in conformity with these agreements.

Most of the community members say that the ownership of their land and forest is their gravest concern. Forests and pasture lands are owned by the government by virtue of its laws and utilization and management of forests are governed by rule and regulations. They fear that the government will take back the forest or impose more restrictions and contradictory laws against their tradition, religion and culture. This will be a direct violation of indigenous peoples' rights by a government whose obligation is to protect their rights, as stipulated by the international laws and human rights instruments.

It is the state responsibility to protect the rights of indigenous peoples to their land, forest, water and other natural resources (ILO 169, Article 14.1). Indigenous peoples have the right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired (UNDRIP, Article 26.2).

In this context, indigenous peoples of Nepal are demanding that the provisions of UNDRIP and ILO 169 must be the minimum standards in the constitutional and legal framework to ensure their rights. The existing constitutional and legal provisions are contradictory with these international instruments.

The Pasture Land Registration Act, 1933 was implemented in 1933. Communities, including indigenous communities, were required to register their pasture land under community ownership and were compelled to pay tax for pasture lands that they have managed, used and controlled as grasslands for their animals for decades. The Act signaled a significant milestone by the Nepali government in denying indigenous peoples of their rights to their lands and territory. In 1957, the Government of Nepal introduced the Individual Land Nationalization Act, 1957 appropriating individual and even community-owned lands and pastures. This created havoc among indigenous communities—they lost ownership and control over their pasture lands and forests. This then contributed to deforestation and degradation of forest resources that accelerated through time.

After the restoration of multi-party democracy in 1990, the government formulated the Forest Act, 1993 in order to involve the local communities in forest conservation and management. There is, however, no provision in the statute that recognizes customary laws. On the contrary, in case the users group is unable to abide by the guidelines and management plan, the District Forest Officer may cancel the registration of such user group and take back the community forest (Forest Act, 1993, Article 27).

James Anaya, the UN Special Rapporteur on the situation of human rights and fundamental freedoms of indigenous people, who visited Nepal from 24 November to 2 December in 2008, clearly mentioned that "due to a number of legal and institutional dynamics, indigenous communities around the country have been historically deprived of the lands and territories they have traditionally occupied or used, often without compensation." He also mentioned that a major turning point in this process had been the Land Reform Act 1964, which

nationalized land and terminated traditional collective land tenure systems such as the Kipat. The Act paved the way for the allotment and distribution of indigenous ancestral lands and, consequently, to the loss of Adivasi Janajati's traditional land base.

Role of Indigenous Women in Conservation and Sustainable Resource Management

Indigenous communities, by virtue of their spiritual and subsistence relation with forests and its resources, have developed traditional practices on conservation and sustainable resource management. Indigenous women play a vital role as steward of these resources. They possess traditional knowledge on the utilization of forest resources. They have considerable knowledge of the characteristics, distribution and availability of local trees, shrubs and herbs. Their traditional knowledge on the uses of plants for food, fuel and health play an important role in the conservation of different species and varieties according to their usefulness to the community (Upadhyaya 2005).

Indigenous women rely on forests for fuel, grasses and fodder in their day-to-day life. They gather wild fruits, vegetables, nuts, berries, spices. More importantly, they possess traditional knowledge regarding the medicinal value of some plants found in their forest. As an increasing number of men of the community emigrate, the role and participation of indigenous women is even higher today.

In Khasur, Lamjung, the indigenous women of Pragati Nari Samuha (Progressive Women's Group) take on the task of guarding the forest, whenever it is necessary. During summer season when there is a high chance of forest fire or when they suspect an act of theft of forest resources, the women's group proactively guards the forest. The forest is guarded especially around its border area where there is an increased chance of people from other places entering the forest illegally. The task of guarding the forest takes place in two shifts, from 7:00 am till 12:00 noon and from 12:00 noon till 7:00 pm. Both

men and women participate in this task as representatives of a family.

Every year during the month of January-February the forest is managed communally with both the participation of men and women. The main community forest-related activities that indigenous women carry out are the collection of fuel wood, fodder, grass, and bush clearing. The task of thinning, pruning, cleaning, and collecting is done by every member of each household, both men and women.

Despite their active participation in various forest management tasks, however, there is low and lack of meaningful representation of indigenous women in the policy and decision making level of the Forest Users Committee. Due to the lack of access to education, information and knowledge, their representation is low. In the study area, it is important to note however that the participation of women in the formal forestry sector has comparatively increased. In the beginning, there were only two indigenous women members in the committee; however, in the newly formed committee, there are now seven indigenous women representatives. They participate in every meeting of Forest Users' Group Committee.

Women depend on forests to perform their gender roles because women are primarily responsible for cooking, feeding livestock, and preparing composts for cultivation. This requires regular access to forest products. Hence, indigenous women suffer the most from lack of access to forest as they have very limited rights to land and income to supplement their family's needs. As indigenous women have direct dependence on forests, their role in its conservation and passing knowledge to future generations is significant. While going to the forest to cut grass or collect medicinal herbs, women sometimes take their children with them and teach them how specific herbs are used. Children are taught not to cut the small herbal plants and not to use matches in the forest which may cause fire.

Indigenous women's role in forest resource management is significant. Indigenous women play a vital role in maintaining the population of valuable wild plant species as they pos-

sess knowledge about the diverse and multiple uses of these plants. They have firm knowledge about forest resources and its efficient use, as well as of identification of species, its uses, geographic location and availability, because they are not only the main collectors of these products but also the managers. They have an indigenous knowledge of forest resource planning, management and conservation (Sherpa 2004).

Different indigenous communities inhabiting different geographical locations (such as Mountain, Hill and Terai) have different religious and socio-cultural backgrounds and their own traditional practices on forest conservation. Within these practices indigenous women participate and contribute in forest resource management.

In the absence of Allopathic[19] medicine for treatment, indigenous knowledge on the medicinal value of specific plants plays a vital role. Both men and women have different kinds of indigenous knowledge system to utilize those local herbs available in their forests. There are various types of local herbs which have been used by indigenous peoples for the cure of different kind of illnesses.

Even though indigenous Gurung women are generally not the healers, they hold a rich knowledge regarding medicinal resources. They possess knowledge regarding the use, collection and processing of medicinal herbs. Herbs found in the upper and deeper parts of the forest are generally collected by males, albeit indigenous women also collect some of them. Indigenous women are more familiar with local procedures of preparing them as medicine.

When the family members get sick, women are usually the ones to pick medicinal plants, prepare these by chopping, drying or boiling, and mix with salt to make these long lasting. Herbs such as Kudki are used for cold, cough, chest pain, and fever. Saduwa is used for poisonous cut, Padamchal for painful sprain, Siltimur for swollen stomach, Chilaune ko bokra for cuts, Haadjori for fractures, etc. When anyone in the family has fever, the medicinal herb Kharboche is boiled and drank. Similarly, for quick recovery from cold, Pinas Jhaar, which is found on the moist walls, are collected and squeezed, and the liquid is dropped inside the nostril. Amla, Harro, lapsi, etc.

are used as rich sources of vitamin C. They prepare pickles as well out of these plants.

Indigenous Gurung women possess great knowledge in food collection and processing. From the forest they collect different varieties of wild vegetables (sisnu, taamaa, niuro, kurilo, bhyakur, gittha) and nuts, berries and spices (katush, aiselu, daalchini, timur). Small plants named Kaulo and Peda, which can be used in preparing bread, are usually collected and used by women.

Obstacles and Threats to the Traditional Practices and Customary Laws

Traditional knowledge reflects indigenous peoples' relationship with nature and land and is underpinned by their spiritual beliefs. Most of these customary laws are, however, not recognized by the state and its laws. At the same time, the reality is that many of the traditional practices, which are based on their religion, culture and livelihood, are vanishing from their communities. Indigenous peoples are rarely in a position to exercise their basic rights for the preservation and promotion of their cultural identity. The different Acts and policies regarding natural resources have created impediments to the recognition and enjoyment of their rights. The Constitution does not recognize these rights due to the complex legacy of colonization.

The major challenge at present is to sustain the traditional knowledge that is the foundation for the protection of natural resources. Transmission of traditional knowledge and skills from one generation to the next is very essential to preserve the rich culture of indigenous peoples. The youth are fed, taught, protected, and nurtured by our elders in the community. Through their elders' experience and knowledge, the youth and future generations are guided, becoming living reflections of their ancestors and elders. Only when this body of knowledge is passed on can the youth and future generations continue to harness their histories, traditional knowledge, connection to land, cultures, and the love and energy of their ancestors and elders.

Related to this challenge are the educational and social policies of the government that do not recognize traditional knowledge and skills and do not provide enabling conditions for its transmission to the youth. For the government, support for free market and the promotion of foreign employment is a priority—support for traditional knowledge and skills are not viewed as favorable market policy.

The government has failed to recognize traditional knowledge in the same way as other established sciences. It has not given protection to traditional knowledge under state laws and policies, nor support in documenting, developing and strengthening the knowledge which indigenous peoples have been exercising for a long time. The state has not developed any programs to strengthen, support and popularize traditional knowledge in the educational system. Traditional knowledge should be developed by indigenous experts into institutions and then integrated into government agencies, organizations and programs.

Indigenous peoples are also confronted with the loss of traditional livelihoods, language and culture, and the growing curtailment of access to mineral resources. Indigenous communities are forced to change their traditional occupations due to various government acts, policies and regulations on natural resources. For instance, when the government implemented the Private Forest Nationalization Act, 1957, many of the households had to desert their animal husbandry, which was directly related to their livelihoods.

When deforestation occurred in forests, which were under government control, havoc ensued. Indigenous peoples had to walk for hours to collect wood, water and fodder. Shifting cultivation (Khoriya) and group cultivation, which are the subsistence livelihood of many of the indigenous peoples in Nepal, were banned. As a result, indigenous peoples were forced to leave their communities to seek for employment as laborers in foreign countries or in urban areas. This has not only disrupted their knowledge and skills but also posed a barrier to their existence and identity.

As the repercussion of the appropriation of rights of indigenous peoples on forest and natural resources, the flow of

traditional knowledge and skills in conservation, management and effective utilization of forest resources has been disrupted. The knowledge on the uses of various forest products has been vanishing rapidly, which will have severe consequences not only on the cultural and social life of the community but also on the effective conservation, sustainable management and the overall ecology of the area. For instance, the Gurung traditionally build homes using locally available fodder and slate. Now, these materials have been replaced by zinc plate and cement, which will have negative impacts on the entire ecology in the long run.

Indigenous communities consulted in the study made it clear that the preservation of their culture and traditions—their very survival—is premised on the maintenance of community solidarity. Traditional law plays a much wider role in these societies as it is key in maintaining community harmony and solidarity. The traditional legal system allows communities to remain intact in societies and to adapt to the changing circumstances.

Although the traditional legal system is still widely practiced, like many aspects of indigenous culture, it is facing several challenges to its legitimacy and practice. Indigenous communities also have been changing their traditional occupation of animal husbandry, medicinal system, production of local liquor and cloths by using modern medicines and imported cloths and beer, which has posed some impediments to the traditional practices and customary system. However, throughout history, traditional justice systems persist and have always adapted to changing circumstances in dealing with new and complex conflicts. Indigenous communities that have been seriously impacted by loss of collective ownership of land, for example, still practice their traditional justice system and maintain a strong moral code, while adapting to new realities.

There is clearly a lack of interface between the formal and the traditional legal systems. There are several examples of good cooperation between traditional forest management systems and community forest management systems in forest management, protection, conservation and resolving the

conflicts regarding the resource distribution of the forest. However, decisions, fines and punishments at these local levels are based on concepts and norms of traditional law, more than the application of national policy and laws in relation to community forests.

Disputes with neighboring villages over boundaries and ancestral land claims are becoming increasingly difficult to solve because of new pressures from the government. In Khasur Village, for example, the community formulates their own customary laws and systems participated in by the community during community assemblies. They practice the Riti-Thiti customary governance system. Foremost among the new problems that traditional authorities have to deal with is the increasing number of disputes with powerful people, usually from the government, over control of the community land and forests.

Indigenous communities consulted in the study made it clear that the preservation of their culture and traditions —their very survival—is premised on the maintenance of community solidarity. Traditional law plays a much wider role in these societies as this is key in maintaining community harmony and solidarity and enables them to adapt to changing circumstances.

During the study, the community members pointed out that the most important cause of loss of traditional knowledge is dispute over ownership of land and resources. After the government imposed laws and denied their collective ownership over their lands and resources, the use of these resources and the concomitant traditional knowledges suffered as well.

Furthermore, government laws and policies that deal with the rights of indigenous peoples contradict each other. Domestic laws have not been amended to conform with government's commitments to international agreements, norms and standards, such as ILO 169 (ILO 1679, 24) and the UNDRIP.

A Case Study of the Gurung Community

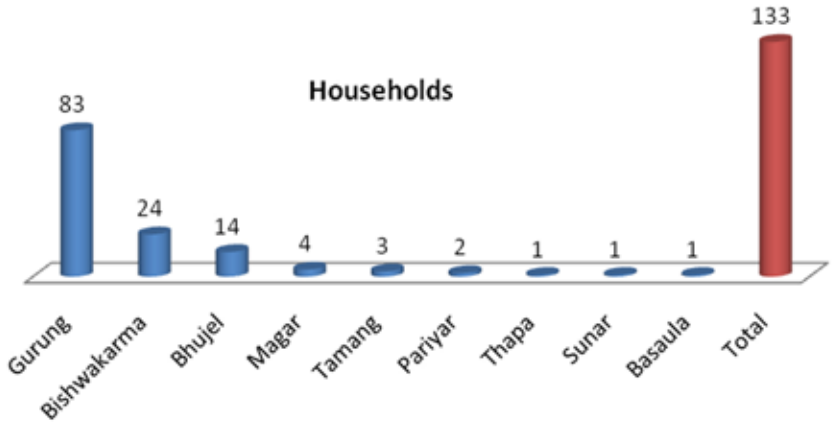


Worship of nature. *Photo credit: NEFIN*

Khasur Village, the research area, lies in Banjhkhet VDC-1 of Lamjung District in the Western Development Region of Nepal. The village is situated at an elevation range of 950 to 2,005 meters above sea level and enjoys a moderate climate (DP 2007). Lamjung is considered as the ancestral land of the indigenous Gurung community who comprise 2.39 percent of the total population of Nepal (CBS 2001). Other indigenous ethnic communities such as the Bhujel, Tamang, Magar, Hyolmo, and Dura also reside here. The Khasur community, which has been selected as the demonstration area for Climate Change Partnership Program (CCPP) in Nepal, lies in the central part of the district.

The Khasur Village, which constitutes ward number 1 of the VDC (Village Development Committee), has 133 households, of whom 83 households are Gurungs.

Figure 1. Household Composition in Khasur Community



Source: Baseline Survey by NEFIN CCPP 2010.

The total population of the village is 849, composed of 424 males and 425 females. There are some scattered and thinly populated settlements around the main village, such as Lete Phant, Khasur Beshi and Kalleri. Kalleri Village has 12 households of indigenous Bhujel, which has been categorized as the most marginalized group in terms of developmental condition based on land ownership, income, literacy and education by the National Foundation for the Development of Indigenous Nationalities (NFDIN).

Topographically, this region consists of hill, steep land, gorges, and river system and ephemeral streams. The settlements are surrounded by five different tracts of forests, which covers an area of 337.25 ha and is dense with diverse floras and fauna. This forest has been managed by the Khasur community forest management under the community forest management guidelines since 25 December 1992.

Khasur is still under the process of infrastructure development; however, there is an access of ungravelled road to the village. There is a pre-primary school in Khasur, a primary school at Kalleri Village, and a secondary school at Khasur Beshi, which is the center for all the communities.

Traditionally, the indigenous communities living here depend on agriculture and animal husbandry. The local

indigenous communities possess different types of traditional knowledge and skills not only on sustainable management of forests and other resources but on treatment system, agriculture, and overall livelihood.

The Gurung Community

The Gurung community is one of the indigenous communities of Nepal with their own native language, distinct culture, and defined territory. Gurungs are the predominant inhabitants of the northwest hill districts of Nepal, mainly in Lamjung, Kaski, Syangja, Mustang, Gorkha, Manang, Parbat, and Tanahu, among others. Gurungs practice their ancient Bon religion, which is Shamanistic and animistic in nature Messerchmidt (1974).[20] The Gurung community has a unique cultural heritage. Birth sanitations like Nah Thoba ("to make hole on ears"), Mi Thenba ("to give name to newly born baby"), Kain Koba ("first rice feeding ceremony to baby") are some social rites of Gurung community. Similarly, Chheor, Putpute, Marriage, Rodhi, Ghatu, Sorathi, Losar, Ne Chala biba are the significant cultural rites. Mhi Sigo Waba (funeral ceremony), Failu, Then, Pai, Tohten, Gaidu, Namru, etc. are some religious rites of the community. The Gurungs have their own belief and zodiac system—defining auspicious and inauspicious days based on their methods of cosmology, which is known as Paen Di. They follow the lunar calendar system in which the 12 Lho (years) are represented by different animals and birds.

Despite the lack of detailed documentation on the history of the community, the Gurungs are believed to have migrated from the northern region of the Himalaya. In pre-history, Gurung legend tells of a Ghale Raja (Ghale King) who ruled their kingdom in ancient period. The Ghales developed principality and autonomous authority in their place before the invasion of the Shah Dynasty in Lamjung District**.** The Gurungs' first settlement in the south slopes of Annapurna was at Kohla, from where they spread a loose federation of local chiefs (Gurung 1996). But the Ghales of Khasur migrated

from Ngola Nasa (Ngola Village) of the southern region of present Manang District to the Paigu Nasa (the old village above 2,000 meter height above Khasur). Around 300 years ago, from Paigu, one of the Ghale groups migrated to Khasur, the lower hillock and had been settling there.

The total population of this community is 543,571, comprising 2.39 percent of the total population of the country (CBS 2001). The main occupation of this community is agriculture and animal husbandry. In the early part of the 19th century, the Gurungs were mainly a pastoral tribe, grazing huge herds of cows and sheep (Macfarlane 2003, 27). In ancient times, they practiced mainly slash-and-burn farming and herding of sheep and goats. The traditional agrarian and pastoral livelihood of the Gurung community has been changing gradually since the invasion of Shah Dynasty in 1969; a series of acts and regulations formulated by the government had curtailed their land ownership rights (Sherpa, et al. 2010).

The Gurungs are not forest dwelling indigenous peoples; however, they have inalienable relationship with forest resources for their spiritual, social, cultural and livelihood activities. NEFIN[21] has categorized all the indigenous communities of Nepal into the following major categories: endangered, highly marginalized, marginalized, disadvantaged, and advanced groups. According to this categorization, Gurung is one the 15 communities under the disadvantaged group. They are not forest dwelling indigenous peoples; however, they have inalienable relationship with forest resources for their spiritual, social cultural, and livelihood activities.

Gurung Community Perspectives on Forest

Socio-cultural and linguistic identities of indigenous peoples is deeply ingrained in their traditional practices, knowledge, skills, and ways of life. In many indigenous communities, the knowledge that has originated and evolved with indigenous peoples through experiences with their environment forms the basis of identity and community norms and values. The way of perceiving the environmental experience

is a fundamental element of their subsistence livelihood that consists of a spiritually-based moral ethos, which governs the interaction between nature and their spiritual world.

Historically, the Gurung communities have been dependent solely on nature and natural resources for their survival. They have maintained a symbiotic relationship with nature, and they have managed the natural environment, sustainably linking with their livelihood and overall way of life. The indigenous peoples have their own understanding and perspectives of their surroundings and local resources.

Spiritual and Cultural

From the spiritual and cultural perspectives, the Gurung community in Khasur has inalienable relation with the forest and other natural resources. The different cultural rituals from birth to death are linked and dependent on forest resources. They use the different plants and green leaves as incense and sacred objects for worship. They use the wood and leaves for cremation and other mortuary rituals. For instance, they need Saalko Lothra (green foliage of Saal) to cover the dead body for cremation. During the Dashain festival, the family members offer food, reciting the blessing, "Walaya la temde mo, kyaja la temde mo," which means "We are offering food to you on leaves of Wala and Kyaja" that are supposed to be very sacred spiritually. Pachyu, Ghyabre and Lama are the priests of the Gurung community who practice exorcism and mortuary rites using forest resources. Similarly, every household keeps prayer flags on the side of the courtyard for protection against evil spirits. The welcome gates for any auspicious occasions or ceremonies such as marriage should be prepared by using a particular wood and green creepers and vines.

Essentially, forest resources sustain the community's livelihood. The local indigenous peoples' forest resource management in the study area involves both individual and collective extraction of resources, guided by cultural norms and social organizations. These culturally constructed actions are often expressed in the forms of symbolic rituals, local be-



Worship of nature. Photo credit: NEFIN

liefs, practices, by individual households or informal groups. They have also made provision of giving necessary wood to the economically-deprived community members as grant or in a subsidized rate.

The local communities have a strong belief that forest is the dwelling place of gods and goddesses. They consider the forest as the forest of community (Pachha ko ban). They worship at the places such as Bayobhir (big rocky cliff), Kanyathan, Malewabhir (bluff of a hill of Malewa bird), Devithan (goddess' habitat), which are located in middle of the forest usually under a big tree or a cliff or big rock. They also worship Simiko deurali (a high pass), Bahra Pokhari (12 ponds), Mheme Pokhari (a kind of pond named Mheme), which are located in their pasture land.

The Gurung community worships the Sachi-Sildo (big rock, big tree or forest) as a god or goddess before initiation of any activities in the forest or pasture land. For instance, they worship Shime-bhume (the forest or nature god) twice a year, particularly while taking their cows and sheep to the Kharkas (higher elevation pasture or grazing land) in early spring season, which is known as Turgum, and shifting back to village in early autumn (Margum). The herder and farmers' community have direct or indirect dependence with forest. As the animals are brought down, the forest will be closed for

at least six months from February to September—no one is allowed to cut down trees or extract forest resources within this period.

They worship the forest god, Shime Bhume, communally during Turgum. At night members of each household gather at the house of the village leader and call Shime Bhume for their protection. In another day every male members of the community go to Chautara (terrace usually under the shade of big tree), worship and request Shime Bhume for the prosperity of agriculture production, protection of community from disasters, and prevention of crops from hail storm and other natural calamities.

Anybody who passes through the dense forest toward the pasture should offer a piece of flower, or a green leaf to the god or goddess for good fortune and to protect them from the evil spirits. The elder members of the family give blessing to their juniors or children during Dashain festival, reciting the rites "Dubo tu maulado" (May you flourish like Bermuda grass), "sartu sarado" (May you shine like a star), "diptu wedo" (May you be able to give light like lamp), "simaltu hyorado" (May you increase like the cotton tree), "ganga mai cha thuto" (May you be secret and eternal like the Ganga river). In the blessing, forest resources such as Dubo, Simal, and Ganga, etc. are used metaphorically, symbolizing prosperity and well-being.

They also believe that in the forest is the habitat of Saji (the evil spirit) who is the spiritual owner of all the wild animals. In ancient times when hunting was their subsidiary occupation, they had to pray to Saji before hunting. And after the successful hunting, they first have to worship and offer some parts of the prey, such as ear, tail, nose, or leg to the evil spirit. This implies that the local indigenous peoples' communities have a strong belief that forests and other natural resources are not only the habitat of supernatural power but are the sources of spiritual power.

Mr. Bhim Bahadur Ghale, 70 years old, said,

In the Dhasikhola forest area, it is believed that in the past, a ban-Jhankri (a forest shaman) used to live in the forest and

if some person is captured by the Jhankri, he then teaches him Jhankri bidhya (or knowledge of Jhankri). After a few days, the person comes back home with a complete Jhankri knowledge."

There are quite interesting myths regarding their beliefs on forest and forest-dwelling supernatural powers. The indigenous communities have many myths related to natural resources. There are many myths about forest and forest-dwelling supernatural powers in the Gurung community. One of the myths still strongly believed by the community is about



Nutritious green leaves (nettle). Photo credit: NEFIN

the Kanyathan, a place of worship for the god in the forest.

According to the myth, in ancient times, there was a golden fish in a pond in the middle of deep forest above the present Khasur Village. At the bluff of the hill southwest of the pond, there was a natural structure on the rock that resembled a cow udder. One day, an inane person from the village killed the golden fish in the pond and smashed the structure of the udder on the big rock. A great catastrophe followed. A huge area from both sides of the pond was completely washed away by landslide and flood. The landslide continued for more than one week. All the elders and important people in the village gathered and worshiped Sachhi-Sildo (the forest god). After offering the worship, the landslide and flood came to a standstill.

Since then, the entire community strongly believed in the supernatural power of the Kanyathan. So, they worship at that place in the forest every year. They believe that they should not yell, whistle or speak in loud voices in the forest, let alone fell trees or deforest, since these would annoy the forest god. This myth on supernatural power has not only reinforced human belief on the spiritual aspect of life, but also mainly contributed to the conservation of natural resources.

Social Life and Livelihood

The main occupation of the indigenous peoples in the study area is agriculture and animal husbandry. Their substantial economic and social activities were based on agrarian and pastoral life for a long time. There was very good social harmony within the community and also with neighboring communities: they had few disputes over the utilization of the natural resources. All the members of the family and society used to be involved in farming and agricultural activities actively. Prior to 1950, all youths were fully involved in agrarian and pastoral activities. They did not have to go work as foreign laborers because agricultural products were sufficient to support their lives.



Forest as source of air and water. Photo credit: NEFIN

The Gurung community produces different garments from sheep wool, which is a special skill of the women in this community. From the wool, the Gurungs produce Radhi-pakhi (blankets) and other clothing, which are very popular in their community. They also produce Bhangra, a traditional Gurung costume from the nettle fiber. Macfarlane (1972) describes significant transformation in the Gurung' economic life once pastoral and the dry crop farmers, a long tradition of mercenary service, and associated income converted them to irrigated farming and to urban life. These greatly affected their tribal culture. Messerschmidt (1974) writes, "the economy of Gurung was herding, hunting and swidden agriculture adapted to the rugged highlands and forests."

The Gurungs also engaged in trans-Himalayan trading. Livestock raising has undergone profound change during the last 100 years. Before, it constituted the principal source of wealth with agriculture not producing significant revenue (Pigned 1974). The Gurung Village has been, for the last 60 years, almost isolated, was well-balanced, and on the whole, provided a surplus.

The local communities were mainly dependent on agriculture and animal herding, which was directly related to forest and other natural resources. But the traditional practices such as Khoriya kheti (shifting cultivation) farming system has been shifted towards non-shifting/permanent farming system. This has brought changes in the agricultural pattern of indigenous peoples—many of the indigenous crops produced by shifting cultivation are disappearing. As a result, uses of chemical fertilizers and insecticides have increased.

The Gurungs usually grow different crops such as rice, wheat, maize, millet, buckwheat; vegetables such as potato, tomato, green leaves; cereals such as soya bean, pea, beans, pulse, etc. These comprise the staple food items of the local community. More interestingly, the local communities still mainly depend on compost manure for agriculture, which is produced by cattle. There is a popular proverb in the Gurung community about the forest: "Jasko bhainsi usko ban" (One who has buffalo, the forest is his). This proverb has been used metaphorically—buffalo, referring to cattle or cattle raising, and forests are interdependent. There are many popular sayings in the community related to forest resources. Sayings such as "Jasko chhoro usko ban" (Who has son, forest is his/her) is frequently used in the communities. This saying implies that the new generation is responsible for the conservation and management of the forest.

Indigenous peoples in the villages collect most of the forest products throughout the year from different forest types; but a few forest products like fuel wood, timber, herbal medicine, fodder, khar (grass for roofing), patkar (leaves for manure) are collected only in certain seasons.

The forest is the main source of timber, furniture and wood for the local community. Edible viands such as fruits, spices, vegetables; medicines and aromatic herbs; and dry food for their cattle, are the forest products. For instance, most of the domestic tools and other handicrafts such as plough, yoke, churner, mortar, pestle, trough, ladle, ladder, spatula, drums, etc. are made from the forest products. Similarly, different types of baskets of various types of bamboo splint are made from the non-timber forest products (NTFPs). The forest

resources can be grouped into different categories based on utilization:

Table 1. Categories and use of different forest resources

Categories	Different plants	Use and objects
Timber and wood	• saal, uttis, chilaune, kattus, chanp, rhododendron, okhar, chiuri, bakyaula	planks, beams, pillar, rafters, poles, furniture, windows and doors, plough and yoke, pestle and mortar, trough, sheath, grinder, scoop, spatula, forks, cultural tools such as drum
NTFPs	• bamboo, daar, splint, lokta, sikari lauro, nettle, etc.	thumse, dhoko, dalo (types of basket); peragu, namlo, bhakari chitra, extraction of fibers
Edible viands	• fruits: berry, kaphal, cheuri, bhrajya, buikasi, masinu, lapsi, amala • vegetables: tarul, gittha, bhyakur, nettle, mushroom, tusa, tama • spices: timbur, kurilo, daalchini, siltimbur	used as vegetable, spice, fruit
Medicinal & aromatic plants	• medicinal plants: gurjo, kaulo, nirmasi, kutki, panchaunle, padamchal, rato-uniyu, lothsalla, harra, hadjora, saduwa, jatamasi • aromatic/incense plants: dhupi, juniper	for treatment
Fodder and grass	• khar, different shrubs for animals	dried food for cattle

Endemic Ecological Perspectives on Resources

The local community members have precise empirical knowledge about the significance of forest. They know that forest is the main source of fresh air and good atmosphere. They still remember the havoc due to deforestation and scarcity of water in the village. The indigenous peoples understand that the forest is not only their source of spiritual,

cultural and material well-being but is also the main habitat of all flora and fauna.

The ecological knowledge of the indigenous peoples of the study area includes a fundamental understanding of processes of ecological change and biological regeneration that underpins their effective and efficient natural resource management strategies. Such knowledge thus provides insights in changes in local resource use and indigenous resource management strategies, which have been adopted and transmitted within the communities from generation to generation, to maintain and sustain production and livelihood.

The context of forest resource management by the local indigenous peoples in the study area identifies the ways and processes of both individual and collective actions while appropriating forest resources through cultural norms and social organizations. These culturally-constructed actions are often expressed in forms of symbolic rituals, local beliefs and practices by individual households or informal groups.

Traditional Practices of Gurung Community

The Gurung community has a very rich cultural heritage. They have been following the traditional practices, which have been deeply ingrained from their religion and culture. Among the Gurungs, there are different socio-cultural elements that bind them as a community: Riti-Thiti or Pye-Chhya and Pye-Tã- Lhu-Tã. Pye-Chya or Riti-Thiti (rules and regulations) refers to the overall governance system of the community while Pye-Tã- Lhu-Tã describes the cultural practices and rituals. These elements are interrelated and coexist in the community. There are systems of headmen, known as Chiba (trusted and educated person), Taba (powerful and bold person who can implement the Pye-Chhya), and Kraba (the main headmen who coordinates among the members), that execute these sectors of governance.

In the Gurung community, the Riti-Thiti, which is the more popular term in Nepali version, has been practiced

since time immemorial. The pasture lands and forests were conserved and managed under the Riti-Thiti.

The headman of the community, the Kraba, is responsible for implementing the Riti-Thiti.[22] The headman is not elected formally, but is accepted and agreed by the community members unanimously. Each household provides compensation to the Kraba for the time spent guiding village affairs.

Aside from the headman, there is a village council and village assembly. Members of the council are chosen by the Kraba among the most capable representatives of the village. The village assembly, on the other hand, is composed of representatives of each household, represented almost always by the head of the house. If he is absent his wife replaces him and joins in the discussions. The assembly, generally called by the Kraba, is done at least two times a year. The rules and regulations for resource management and utilization, the system of penalties for violations of these rules, and the amendments of the rules and regulations, are made by the village assembly.

One of the provisos in the Riti-Thiti regarding resource management that is still being practiced is the Ban Bandne and Ban Kholne regulation. According to this proviso, the forest is open for collecting firewood and fodder only for certain periods, depending on the situation of forest. Collection of firewood and other resources can be done from 1 December to 1 January, which is known as Ban Kholne. Similarly, the Turgum and Margum refers to taking cattle and sheep to the pasture land usually in early spring, and going down to a lower elevation in autumn season. This proviso under their customary law has been very useful in controlling pressures on forest resources.

The community members, including the headmen, are equally responsible for conservation of forest resources, as guided by the Riti-Thiti. In case of violation of any proviso in the Riti-Thiti, the offending party has to pay a fine in the form of wine (Theki Pong) or cash fine to the headmen. The fine depends upon the seriousness of violation; however, the violator has a chance to explain or admit his/her guilt.

Shifting cultivation was done collectively in the ancient times. In such group farming, the product of cultivation is divided equally to all the members involved in cultivation. One person, or Khurpa, is equal to one share. All the community members, including female and youth, actively participate in the community activities.

Gurungs' Indigenous Knowledge and Skills

The Gurung community possesses traditional knowledge and skills, which are deeply ingrained in their culture, language, and way of life. The following table shows different types of skills of the Gurung community that are based on forest resources:

Table 2. Forest resource-based skills

Resources	Objects	Purpose
Timber	Agricultural tools: plough, yoke, handle of axe, spade, Madhus, Harish, etc. Kitchen tools: spatula, scoop, fork, churner, pestle, tray, drum, trough Religious and cultural tools: drum, trumpet, batons, etc.	Daily use and for sale
Bamboo	Baskets: Thumse, Doko, Dalo, Peragu, Namlo; Others: Namlo, tethering rope, ropes, Bhakari, chitra, etc.	Daily use and for sale
Wool/Natal Fiber	Bakkhu, Radi, rega, jingli, nedo, etc.	Daily use and for sale
Herb	Tite Pati, Gurjo, Kaulo, Nirmasi, Kutki, Panch Aule, Pdamchal, Rato unyu, Lothsalla, Bikh (poison), etc.	Used as needed

Some of the popular cultural practices also serve as institutions within the Gurung community. For instance, Rodhi is one of its most popular cultural practices. It is the association of youths where teenagers are taught cultural practices (e.g., marriage), knowledge and skills. It is based in a particular household in the community as a semi-permanent dormitory.

The couple of the Rodhi house is called the Rodhi father and mother. All the teenagers automatically become members of the association and participate equally. They take part in group fun, entertainment, learning, sharing, and matrimonial arrangements. Rodhi is a time to have fun and for finding affection, love and marriage.

Rodhi in the Gurung Community

Rodhi is an interesting cultural institution of the Gurung community. It governs all cultural practices among the Gurung community. Basically, it is a club of same-age group of girls and boys. It consists of four Budauli, one dittha and same-age groups, Pare. Budauli is the panel of elders who makes the decisions; Ditthas are supervisors; and Pare are the same-age youth groups who are the followers and implementers of the decision handed down by the Budauli.

This institution plays a very vital role in the preservation of their traditional culture, tradition and knowledge. Rodhi serves as a traditional knowledge transformation institution.

One specific house is selected for Rodhi. The selected household head is known as Roseba and his wife is known as Rosema. All the Pares give them respect as father and mother.

During the daytime, the youths engage in different household and agricultural activities. In the evening, both teenagers and young adult boys and girls voluntarily gather in a specific Rodhi house. They enjoy singing, dancing, storytelling, etc. in the Rodhi house. They share information about firewood and fodder collection, pasture, animal husbandry, agriculture, irrigation, forest, etc. Older members also attend and most of them do activities related to weaving woolen blankets (called radi), pakhi and natal fiber blankets (Nedo, Rega, etc).

In Khasur Village, however, the Rodhi is no longer practiced, as several years ago, the Rodhi disappeared from Khasur. The absence of the Rodhi had a direct effect on the traditional knowledge system. Weaving of woolen and natal fiber blankets stopped as the Rodhi played an important role in handing down traditional knowledge on weaving of these blankets to the next generation.

Forest Conservation and Management Trends

Trends in forest conservation and management in Nepal can be categorized into four periods: pre-1957, 1957 to 1975, 1976 to 1988, and post-1989. We tried to analyze the history of forests in the study area based on these different periods.

Pre-1957

This period can be further subdivided into three significant periods: pre-unification,[23] unification under the pre-Rana Regime,[24] and the beginning of Party-less Panchayat regime[25] under the monarchy system.

This period was the heyday for the indigenous peoples—they were the owners of their forests and pasture lands. The condition of the forests was very good—there was a huge and dense forest in this territory, according to the local people. They had no problems exercising their traditional practices and customary system of governance. They had their own traditional customary system, the Riti-Thiti, to manage the natural resources and overall governance of the community. The forest and other natural resources were managed sustainably under the headmen of the community. All the community members, including the headmen, were equally responsible in resource conservation and management. They had close attachment to the forest and other natural resources.

In Khasur, the whole community members gathered biannually in a common place to decide on annual activities such as timber extraction, firewood cutting, fodder and leaf collection, and management of the Kharkas (higher elevation pasture or grazing land). The village assembly decided the fines for violation of the Riti-Thiti. The amount of fine was decided by the village assembly and the headman discharged the fines, but the violators were given opportunity to explain themselves. The headmen were not elected formally but were accepted by the community members unanimously

Traditional Pasture Land of 12 Clan Groups of Gurung

The Gurung community lived in the north of the Himalayas and south of Marshyangdi river, and expanded towards Dordi River to the east, and Ngadi River to the west. In this territory, the following pasture lands were under their ownership: Chauri Kharka, Tosyo Kharka, Rondhu, Irache, Tepka, Khole Pokhari, Kailo, Shaten-Pajhe, Bara Pokhari, Lapka Deurali, Maigyu, Kore, Paimu, Tetengyo, Purano Nasa, Paicho Mro, Simiko, Nathe, Chhipako, Babiyo Bhir, Gorle Dada, Bharle Pakha, Sitale Pahka, Man Kaleri.

Animal husbandry was one of the main livelihood of the indigenous peoples in this area. They had flocks of sheep, goats, cow, and buffaloes due to easy access to pasture and grazing lands.

Prior to the "territorial unification" under the Gurkha imperialism or internal colonization of 1768, different indigenous nationalities had their own homeland and self-rule. Infringement on the rights of the Gurung community started after the territorial unification of the country in 1768. Unfortunately, the customary law of the Gurung community for sustainable management of forest was jeopardized due to the intervention of different acts, regulations and policies by the state. During the Rana regime, the responsibility of managing the forest and other resources was given to the Jimmawal.[26] But in the case of the Gurung community in Khasur, it seems that the Jimmawal followed their Riti-Thiti system of governance in the community. The same Jimmawal is known as Kraba in Gurung language.

1957 to 1975

In 1957, the Nepal government under Prime Minister Tanka Prasad Acharya nationalized all forest areas under the Private Forest Nationalization Act, 1957. The main aim of the act was to nationalize all forests, including community and other individual forests, which were given them by virtue

of the Lalmohar[27] during the Rana regime. The plan was to develop all natural resources, including forests, as national property under the protection of the state.

With the confiscation, indigenous peoples lost control of their forest and resources. As a result, the indigenous peoples gave up responsibility for protecting and conserving the forests to the government, having been deprived of its ownership. People became alienated from their forests and resources, and stopped caring for the forest since this was now under government control and management. The traditional practice of Riti-Thiti system and all the other forest-related customary laws stopped.

In this regard, many argued that nationalization destroyed the indigenous forest management systems, depriving the local people of their right to manage and benefit from the forests. Access to forests and its resources effectively became open to outsiders.

Experts point out infrastructure and agricultural development, increasing population, firewood collection, resettlement, pastureland expansion, and jungle fire as main factors to deforestation and forest degradation. However, indigenous peoples underline government laws, policies and government institutions as major factors to deforestation and forest degradation. Data showed that deforestation and forest degradation increased following the introduction of the Private Forest Nationalization Act, 1957. The Resettlement Company and Jhoda Act, 1971 further aggravated the situation of forests in Nepal. These acts, programs and policies finally forced the indigenous peoples to flee their ancestral lands and forests.

Additional acts continued the alienation and deprivation of indigenous peoples of their lands, forests and natural resources. These included the following:

- National Park and Wildlife Conservation Act, 1973;
- Second amendment of the Land Reforms Act, 1964, which in 1968 abolished the Kipat system, forcing indigenous peoples to surrender their collective ownership on land;
- Pastureland Land Nationalization Act, 1975 that na-

tionalized pasturelands and added extra taxes in their pasture lands.

The Ministry of Forestry, established in 1959, was unable to control the widespread deforestation that was occurring in vast inaccessible areas. In relation to the management of forests, the District Forest Office (DFO) issued logging licenses for timber and other forest resources, but without any proper monitoring system. The communities also did not have strong motivation to protect these resources since the contractors were the ones who had had licenses.

Within a decade, from 1957 to 1966, almost all the trees were logged while other non-timber resources such as herbal plants, were extracted and exploited, resulting in a 75 percent forest deforestation of the country. From 1950 to 1980 about half a million ha of forests were destroyed.

Devastation occurred in the Khasur community. People had to walk at least three to five hours to collect wood. Villagers faced scarcity of firewood, timber for their homes, grass and other resources. Their livelihoods suffered from lack of access to the forest and forest resources. They faced drought, hunger, flooding, etc. Community members recalled very bitter experiences in terms of access to the forest resources during this period.

The Government of Nepal also imposed the Pasture Land Nationalization Act, 1974. As a result, communities had to register their pasture land under community ownership, and pay taxes to grass lands that they had owned and controlled for ages.

Recalling the past, an elder from the community forest management committee said:

> *We had a dense forest before. Even though we used to have large numbers of cattle to graze in that forest, our forest was still conserved. Our life was highly dependent on the forest but our resources were conserved. It was easy to get medicines, fruits and fodder from the nearby forest. But after the government declared the nationalization of our forest, depletion of resources accelerated. People started to think that it was government forest.*

Hence, their roles and attitude towards their forest changed drastically. In 1966 youths from some of the villages showed determination to safeguard the forest and other natural resources. They wanted to revive the Riti Thiti, but the main problem was the license holder, who had permission from District Forest Office, cut down the resources haphazardly. Slowly, animal herding and use of the pastureland declined. It became difficult to prevent forest fires while some of the valuable plants and herbs disappeared from the forest.

Dispute and Resentment

This period was very fragile from conservation perspectives. People felt alienated from their resources. As a result, many disputes and incidents occurred in the community, which show the resentment of the community people to the appropriation of their resources by the state. According to the local people, some of the licensed loggers from the neighboring village came to the forest and started felling trees for timber during the 1960s. The Khasur community members protested and confiscated the timber and their logging equipment. But the loggers had a logging license. They went to the police station and filed a robbery charge against the community members. As a result, 24 men from the village were arrested.

1976 to 1988

Following the recommendations of the ninth forestry conference held in 1974, the government drafted a national forestry plan in 1976. For the first time, the plan recognized the role of participation of local communities. To implement the concept laid down in the plan, the Forest Act of 1961 was amended in 1977 to define new categories of forests to be managed by local communities, religious institutions and individuals. Operating rules for the Panchayat Forest and the Panchayat Protected Forest were prepared in 1978, which allowed village panchayats to manage barren or degraded lands for forest production. A further provision of leasehold forestry was made in the Rules, allowing a limited area of degraded forestland to be given to individuals or agencies for reforesta-

tion and production of forest products. These amendments to the Forest Act and Regulations have been taken as evidence of the government's realization that forests cannot be managed without the cooperation of local communities and, hence, represent a major shift in Nepal's forest policy.

During the initial stage of participatory policy creation, the emphasis of the government and donor agencies was on resource creation through reforestation and afforestation projects. People's involvement in forest management was limited to activities directly related to the government project objectives. Part of the reason for this emphasis was the strong international influence originating from the perception of an imminent ecological crisis in the Himalayas, which prompted donor agencies, particularly the World Bank, to recommend large-scale plantations to address the perceived problem.

Attempts to Get Back their Confiscated Pasture Land

In 1992, the Khasur community organized a 3-day-long meeting (Nal sabha). The meeting was attended by more than 90 representatives from 11 villages in the surrounding area. The meeting was the first huge meeting held to discuss how to get back their confiscated pasture land and other forest from the government.

According to the minutes of the meeting, they made significant decisions, some of which are as follows:

- To pledge to the government in order to get back their pasture land and other forests, which they had been utilizing before the Forest and Pasture Nationalizations Acts;
- To continue struggling and holding meetings to get back their pasture land and forest;
- To form a united Bahra Pokhari Lekh Kharka User Group to manage and utilize the pasture land and forest, which was in their ownership during the Rana regime by virtue of the Lalmohar (red seal) issued by the King.

Post-1989

In the overall national context, the 25-year Master Plan for the Forestry Sector was prepared during 1986-1988, which was approved by the government in 1989. The plan recognized community and private forestry as the largest among the different forestry programs and encouraged the transfer of forest access and management rights to local communities. The plan also emphasized the need to establish forest user groups (FUG) as the appropriate local management bodies responsible for the protection, development, and sustainable utilization of local forests. Moreover, it also included the development of an operational forest management plan by communities as a prerequisite to handing over forests for their use. The plan recommended handing over all accessible forests in the hills to local communities to the extent that they were willing and able to manage them. The formulation and implementation of the Master Plan can thus be considered a turning point in the history of forestry sector policy in Nepal.

In 1990, the country underwent a radical political revolution—the monarchy was changed into a Multiparty Party Democratic regime with a constitutional monarchy in Nepal. A new forestry act was promulgated in 1992 and enforced in 1995 for improved implementation of the Master Plan. The Forest Act of 1993 categorized national forests into five subcategories, namely:

a. community forest;
b. leasehold forest;
c. government-managed forest;
d. religious forest; and
e. protected forest.

Community forestry was given the highest priority over other types of forest management. The Act identified a community FUG as a self-governed autonomous entity with authority to independently manage and use the forest according to an agreed management plan. An amendment to the Act in 1999, however, made it mandatory for a FUG to invest at least 25 percent of its income in the development and conservation of the community forest. The effect of this policy and legisla-

tive changes has been positive compared to the existing policy and regulations.

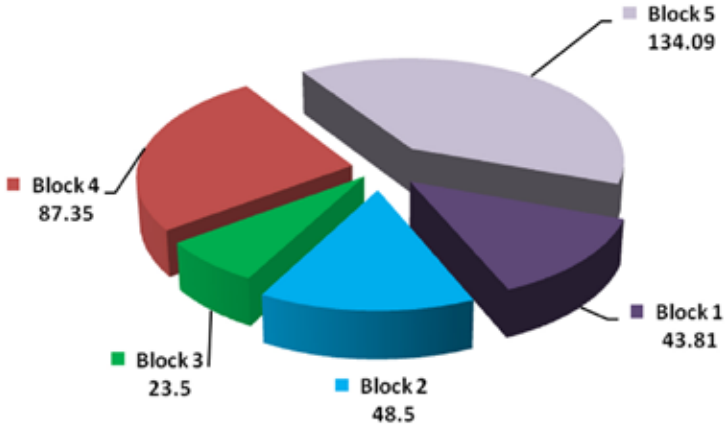
As a result, the community forestry program has dramatically expanded in terms of both spatial coverage and number of forests handed over to local communities after the enforcement of the new legislation. According to the forest department there are about 16,000 community forest user groups in Nepal. Among them, most of these community forests are in the middle hills.

According to the Act, the District Forest Officer may hand over any part of a national forest to a users' group in the form of a community forest, entitling the community to develop, conserve, utilize and manage, and distribute the forest products independently by fixing their prices according to management plan. However, according to the Act, the community does not have ownership of the forest—the government can seize or cancel the certificate of community forest at any time. This scenario remains a major concern for the community.

Regarding the Khasur community forest, on 20 February 1992, they formed the Khasur Community Forest User Group (KCFUG) in the presence of representatives from DFO Lamjung. The KCFUG was given the responsibility of management and conservation of the forest beginning 25 December 1992. They then revived the Riti-Thiti and commenced managing the forest in a hybrid system by incorporating government regulations and their traditional Riti-Thiti. The forest covers 337 ha of the study area, which falls under the category of community forestry. After the formation of KCFUG, the whole village participated in a 45-day forest cleaning campaign voluntarily.

All the forest patches are being managed under the customary rules and regulations in which each member of every household has to effectively participate, not only in the utilization, but also in the management of the forest. The KCFUG has been influenced by traditional management systems such as Bane-Kholne, Bana-pala (conservation area for timber for the period of 3-5 years), and the Tol Ban,[28] etc.

Figure 2. Division of forests into five blocks (Area in hectare)

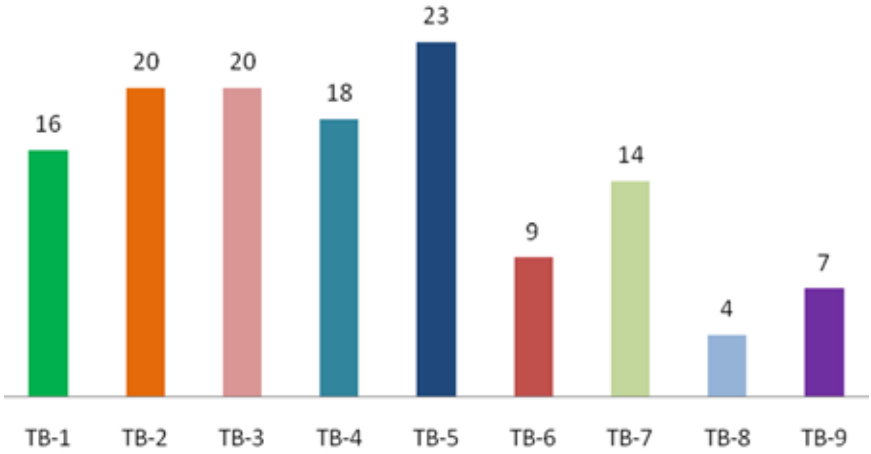


Source: Khasur Community Forest User Group Management Plan 1992.

In January 1993, the Khasur community held a 9-day assembly, which was the longest meeting in the history of Khasur community, to decide on the proper management of the community forest. A total of 97 participants—a member from each household—participated in the assembly, which made significant decisions on the conservation and management of the forest.

The formal assembly decided to divide the community forest into nine Tol Ban (group forest) out of the five major blocks for effective management. The different Tol Bans were: Lete, Arnaswara, Majha, Kosara, B.K., Kalleri, Kalme, Shiran, and Purba. They decided that the households for each Tol Ban will be responsible for collection of firewood, grass, fodder, and leaves; and the protection of natural resources in the forest. Aside from the nine Tol Bans, there is big plot that serves as collective forest for whole community.

Figure 3. Different Tol Ban of HH



Source: KCFUG AGM Minute on 18th January 1993.

As per the community forestry guidelines, the user group prepared a management plan with detailed rules and regulations for effective management of the forest. Some of the significant decisions of the committee were as follows:

Table 3. Significant regulations of KCFUG management plan

Rules and regulations	Reasons
No cutting of trees from the forest for the next 5 to 10 years.	To improve the poor condition of the forest.
Stop collection of firewood and logging of trees without the permission of the committee.	To manage the forest resources properly and ensure equal benefit-sharing.
Formation of a team to maintain round-the-clock monitoring of the forest.	To conserve the forest.

Source: KCFUG Management Plan 2060.

The youth were the key human resources mobilized by the community and have played an important role in implementing the Riti-Thiti. When the community members learn of a violation of the Riti-Thiti, they mobilize the youth to monitor and bring the accused before the community assembly.

In order to balance the pressures on forest resources, the management committee prepared a calendar for utilizing the forest resources (Table 4). The villagers also identified different types of forest to ensure a balanced and robust ecosystem (Table 5).

Table 4. Forest resource utilization calendar

Activities	Time Duration
Logging for firewood and timber	Magh to Chaitra (mid-January to mid-April)
Khar (a type of grass) collection	Paush and Phalgun (mid-December to mid-February)
Turgum (taking cattle to higher elevation)	Chaitra/Bainshakh (mid-January to mid-April)
Margum (bringing cattle downward)	Mangsir/Paush (mid-November/December)

Source: KCFUG Management Plan 2060.

Table 5. Different types of forests necessary in a community forest

Category	Types	Significance
Patal	Big and dense forest	For timber and wood Habitat for wildlife such as leopard, deer
Jhadi-buttyan	Dense shrubs and small trees	For NTFPs Habitat for certain wild animals such as porcupine, rabbit and birds
Kharka	Pasture or grazing land	For grazing cattle Medicinal and herbal plants
Pakha	Glade or open area or meadow	For fodders and grass For sunlight for wildlife

Source: KCFUG Minutes.

Khasur community forest yields both tangible and non-tangible products and benefits for indigenous peoples. Forest

is generally a resource base that had been governed by traditional norms and spirituality. Indigenous women directly source firewood, fodder, grass, timber, food, and medicines from the forest. Beside these direct uses, the forest provides the continuous flow of water supply and act as a mitigation measure for climate change.

About 182 households, including the households from Deujanthok Village, rely on the Khasur community forestry. Women (510 individuals) and men (539 individuals) are members of KCFUG. The women are also given a role in management and conservation of the forest. Every year, during the month of January-February, the forest is managed communally with both the participation of men and women. As large numbers of men migrate to the city to look for work, women's participation in forest management has increased.

Realization of Impacts of Climate Change

The indigenous communities in the study area have realized the adverse impacts of climate change on their lives. They are confronted with erratic weather patterns, among others.

"It has been several years now that we have not seen any snowfall at Chitredanda (Chire hill above the village)," one of the members of the resource group said. He added, "The snow at Chitredanda is a sign of good harvest in the community." The indigenous belief of this community is that snowfall on the upper parts of hills is a harbinger of good production.

During the focus group discussion, local community members said that several plants have disappeared from their area (Table 6). They mentioned that new harmful species, such as Gande Jhar and Banmara, have appeared in the forest. These species cover and kill indigenous plants and supplant them. Indigenous women mentioned that these harmful weeds have damaged their crops. They have also observed that water level of rivers such as Bhachok, Simpani and Taal have decreased.

Table 6. Some forest resources that have disappeared

Category	Plants disappeared	Significance
Medicinal and aromatic	Lauth salla, Saduwa, Pipla, Bikikasi	Used as medicine
Comestible provender	Sinkauli, amala	Used as spices, fruit
Other	Naijeli Jhar	Used for decoration

People have felt fluctuation in temperature, with temperature rising beyond normal. As temperature rises, harmful insects have been found, such as mosquitoes and other insects that damage crops or spread communicable diseases.

The indigenous women of the study area have also noticed the disproportionate changes in the pattern of rainfall, with intense unseasonal rainfall for several days, which have been affecting their agricultural production. Dependent on monsoon rain for cultivation, the indigenous women of this community experience reduced food production. Last year, they planted wheat but very low amount of wheat was harvested. The members of the community, both men and women, then went to the agriculture office from where they got the seeds, to inquire about the problem. The office personnel said that the problem was not on the seeds but with their soil and the climate.

A 54-year-old woman recalled, "In our time, people of the village used to sell rice, beans, lentils and other seeds in the market, but now we have to buy extra food for ourselves from the market." She added, "Our agricultural production is rainfed, but for last few years, the rainfall has become erratic. When we needed rain for our crops, it did not come, but then it rained heavily for several days when it was already late for cultivation."

Indigenous peoples of the study area have been adopting the own adaptation strategies in order to replace the loss and depletion in food production caused by climate change. To cope with this impact they promote the crops that need less water, e.g., rice varieties such as Aryan, Makawanpure, etc.

For higher production of maize they have brought improved seeds and have started planting these. In order to manage water for cultivation, they have started collecting running water during the rainy season and water their crops through small canals they have prepared in their fields. Similarly, those who have their fields near the river have diverted some of the riverflow to irrigate their crops. Some families have started organic farms, the produce of which they sell in the market. Some have initiated the home-stay tourism in this area as an alternative way of earning. On the other hand, many youths have migrated to the gulf countries to work as laborers. Many of the women have also been obliged to work in urban areas (e.g., Beshisahar, Kathmandu, and Pokhara) as porters or stone cutters.

Climate Change, REDD Plus and Indigenous Peoples

Indigenous peoples in Nepal inhabit the most fragile ecosystems, including tropical rainforests, high mountain areas, low-lying ravines and floodplains, as well as temperate forests. They maintain a close relationship with their territories and natural resources, being directly dependent on these resources. They depend on their ecosystems not only for their livelihoods but also for their cultural and spiritual existence. They have been managing ecosystems and nurturing its integrity and complexity in sustainable and culturally-diverse ways for centuries. Their customary resource management systems based on their endemic traditional knowledge and skills have proven to be ecologically sustainable and efficient.

For indigenous peoples, climate change poses threats and dangers to their very existence, even though they contribute the least to climate change. Living intrinsically with nature and inhabiting ecosystems most affected by climate change, they are the most vulnerable to climate change. They are confronted with long droughts and prolonged floods, unseasonal heavy rainfall, worsening food and water insecurity,

spread of new diseases, destruction of traditional livelihoods, and cultural ethnocide or destruction of indigenous peoples' cultures, which are linked with nature and agricultural cycles. This vulnerability is further exacerbated by the fact that indigenous peoples are among the most socio-economically disadvantaged.

Indigenous peoples have, for centuries, been adapting to changing weather patterns through their indigenous knowledge and practices. This resilience has helped them to survive and develop appropriate adaptation methods. However, the severity of current climate change is seriously testing their capacity to adapt to its impacts.

Indigenous peoples play vital roles in enhancing the resilience of ecosystems through their traditional knowledge and sustainable management practices. In addition, they interpret and react to the impacts of climate change in creative ways, drawing on traditional knowledge, practices and other skills to find solutions that society at large can replicate to counter these imminent changes.

Their contributions are, however, largely ignored. More efforts are needed to document and educate the larger society on the role indigenous peoples play in protecting, conserving and sustainably managing natural resources, as well as their local adaptation and mitigation strategies based on their traditional knowledge and practice.

For indigenous peoples, forests play an essential part in ensuring their physical, cultural, spiritual and economic well-being by giving them access to a secure means of subsistence, food source, medicinal plants, and as places to practice their customs and hold their rituals.

In short, forests, for indigenous peoples, have multifunction roles that provide various ecosystem services. Their traditional forest management practices have directly led to the conservation of their forest and biological diversity. Their practices have contributed to soil fertility, prevention of soil erosion, increase of verdant cover, and watershed development and protection. Through their age-old sustainable practices, indigenous peoples have, in reality, been reducing emissions

from deforestation and forest degradation as a result of sustainable forest and resource management practices.

For indigenous peoples, carbon credits are unethical and irrational because these do not tackle the root cause of climate change. There is concern that trade in forest carbon credits may establish perverse incentives for governments and big business to expropriate indigenous peoples' forests and displace their communities in order to capture carbon funds.

There are clear risks, but also potential benefits to be gained by indigenous peoples in REDD Plus. Under the REDD Plus safeguards, rights of indigenous peoples are recognized, including their effective participation and their traditional knowledge in forest management. Yet, so far, indigenous peoples have not been genuinely consulted about the risks and potential benefits of REDD Plus nor have they effectively participated in the development of plans being promoted by their governments, with the support of international agencies.

Conclusion and Recommendations

For centuries, indigenous communities in Nepal have established their customary governance systems and practiced their traditional knowledge systems that have been developed through their inalienable relationship with nature. Through these systems, they have been able to conserve and sustainably manage their forests and other natural resources.

Many of these traditional practices, knowledge and customary governance system, however, have already disappeared due to acts and policies of the state, which denied and violated their rights to their lands, forests and resources. Though these traditional practices have made substantial contribution in mitigating climate change through their sustainable and low carbon lifestyles and their sustainable resource management practices, the state has not recognized these contributions to date. It is important to note that conservation of forest and its resources was more effective under indigenous community

ownership and management, rather than under government management and control.

Regarding climate change, indigenous communities have realized its impacts on their socio-cultural and economic life. They continue to adapt to climate change, using their indigenous knowledge and skills.

Presently, Nepal is in the process of drafting a new Constitution. The findings of this study may be useful as an important reference point for indigenous peoples' organizations and indigenous Constituent Assembly members to raise issues related to the rights of indigenous peoples and to ensure that these are incorporated in the new Constitution. This study can also be used to influence REDD Plus policies and plans and the implementation of other forest-related programs that may impact on indigenous peoples.

Based on the findings of the study, the following recommendations are proposed:

1. Indigenous communities should take initiatives to transfer indigenous knowledge and skills to younger generations by documenting and promoting these knowledge systems. They should strengthen their community institutions through which these knowledge systems can be passed on to the next generations;
2. Indigenous communities should be aware of the paramount significance of their traditional practices and customary governance system not only for their socio-economic and cultural existence, but more importantly for conservation and sustainable management of forests, which help mitigate climate change;
3. Indigenous peoples must be united within their community and among other communities for solidarity and synergy. They should raise their voices to oblige the state to respect indigenous peoples' rights to their lands, forests, waters and other natural resources as enshrined in international human rights law and treaties and conventions that were ratified by the government;
4. The government should first recognize the ownership

and symbiotic relation of the indigenous peoples with their lands, forests, waters and other natural resources. The government should ensure that the rights of indigenous peoples to traditional use, access, and title to traditional lands, waters, and sacred sites, as well as the rights included in treaties, are upheld in land use planning and climate change mitigation strategies, including the creation and management of Protected Areas. The government should implement ILO 169 and UNDRIP, and in particular, recognize the right to free, prior and informed consent;

5. The state should make necessary legal provisions to implement the rights of indigenous peoples as enshrined in international conventions and other human rights laws and treaties. For effective implementation of these, the state should promulgate necessary acts, policies and guidelines up to the administrative level. In particular, the state should ensure effective participation, benefit-sharing, and recognition of traditional knowledge in policies and programs related to indigenous peoples and forests, including REDD Plus;
6. The state should recognize traditional knowledge and skills of indigenous peoples and that this knowledge is recognized in parity with other sciences. It should formulate laws and policies that recognize and protect traditional knowledge and develop programs to document, strengthen and promote traditional knowledge and skills in the education system;
7. Relevant international organizations should support indigenous peoples' needs for capacity building, networking and education and training for empowerment. These include revitalization of their knowledge and skills and knowledge sharing among different indigenous peoples from all over the world;
8. Relevant international organizations should support indigenous peoples' initiatives to elaborate and develop its vision of sustainable, self-determined development and influence policymakers to recognize and support this framework; and to influence national governments to implement the rights of indigenous

peoples as enshrined in the UNDRIP and ILO 169;
9. UN agencies should support indigenous peoples' adaptation and mitigation strategies on climate change.

Annexes

Annex 1. Timber and Non-Timber Plants

S.N.	Plant	Forest Block	Area/No.	Uses
1	Lapsi	Block No. 1	43.81	Fruit, firewood, wood
2	Masinu	Block No. 1, 2, 3, 4	203.17	-do-
3	Aiselu	-do-	-do-	Fruit, firewood
4	Simal	Block No. 1, 2, 3	115.81	Timber, firewood, grass
5	Khira	Block No. 1, 2, 3, 4	203.17	Pillar, timber
6	Banyar	Block No 1	43.81	Fruit
7	Balaya	Block No. 1, 2, 3	115.81	Pillar, timber
8	Jalyad	Block No. 2, 3	72	Firewood, grass
9	Katus	Block No. 1, 2, 3, 4	203.17	Fruit, firewood, grass
10	Dhanseri	Block No. 4, 5	221.44	Timber, firewood
11	Okhar	Bock No. 5	134.9	Fruit, timber, firewood
12	Jalpana	Block No. 1, 2, 3	115.81	Fruit, firewood
13	Timbur	Block No. 1	43.81	Spice, medicine
14	Mushroom	Block No. 5	134.09	-do-, vegetable
15	Ankhtare	Block No. 1, 2, 3	115.81	Medicine
16	Sajiban	Block No. 1, 2	92.31	-do-
17	Siltimur	Block No. 5	134.09	-do-
18	Silaji	Block No. 4	87.35	-do-
19	Raktachandan	Block No. 5	134.09	-do-
20	Laligurans	Block No. 5	-do-	Firewood, timber
21	Kurilo	Block No. 3, 4, 5	244.94	Medicine, vegetable
22	Sikari lauro	Block No. 4	87.35	Firewood, cottage industry
23	Gurjugana	-do-	-do-	-do-

24	Sal	Block No. 1, 2, 3	115.81	Timber, firewood
25	Chilaune	-do-	-do-	-do-
26	Bamboo	Block No. 1	43.81	Cottage industry
27	Utis	Block No. 2, 3, 4	144.9	Timber, firewood
28	Chanp	Block No. 4	87.35	Timber, firewood
29	Chyuri	Block No. 1, 2, 3, 4	203.17	Oil, timber, firewood
30	Kaphal	Block No. 2	48.5	Fruit, firewood
31	Dar	-do-	-do-	Cottage industry
32	Bakyaula	Block No. 1, 2, 3, 4	203.17	Firewood, grass
33	Nigala	Block No. 4	87.35	Basket, splint, rope
34	Dale Katus	Block No. 1, 2, 3	115.81	Timber, firewood
35	Laligurans	Block No. 5	134.09	Firewood, timber
36	Sikari lauro	Block No. 4	87.35	Firewood, cottage industry
37	Raktachandan	Block No. 5	134.09	Incense, timber
38	Khar	Block No. 4	87.35	Roofing, grass, rope

Annex 2. Medicinal Plants and Other Herbs

S.N.	Plant	Forest Block	Area/No.	Uses
1	Amala	Block No. 1, 2, 3, 4	203.17	Medicine, fruit, pickle
2	Dalchini	Block No. 4	87.35	Spice, medicine
3	Harra	Block No. 1, 2	92.31	Medicine
4	Sugandhapal	Block No 4, 5	221.44	-do-
5	Birali	Block No. 3, 4	110.85	-do-
6	Hadjori	-do-	-do-	-do-
7	Rittha	Block No. 1	43.81	Medicine, soap
8	Uniyo	-do-	-do-	Medicine
9	Siudi	-do-	-do-	-do-
10	Titepati	Block No. 1, 2, 3, 4, 5	337.25	-do-
11	Jante tarul	Block No. 2	48.5	-do-
12	Saduwa	Block No. 5	134.09	-do-

13	Gurjulara	Block No. 1, 2	92.31	-do-
14	Timbur	Block No. 1	43.81	Spice, medicine
15	Mushroom	Block No. 5	134.09	-do-, vegetable
16	Ankhtare	Block No. 1, 2, 3	115.81	Medicine
17	Sajiban	Block No. 1, 2	92.31	-do-
18	Siltimur	Block No. 5	134.09	-do-
19	Silaji	Block No. 4	87.35	-do-
20	Kurilo	Block No. 3, 4, 5	244.94	Medicine, vegetable

Annex 3. Wild Animals

S.N.	Wild Animals	Forest	Area
1	Leopard	Block No. 1, 2, 3, 4, 5	337.25
2	Bear	Block No. 5	48.5
3	Jackal	Block No. 1, 2, 3, 4, 5	337.25
4	Fox	Block No. 4, 5	221.44
5	Marten	Block No. 1, 2, 3, 4, 5	337.25
6	Wildcat	Block No. 4, 5	221.44
7	Goral	Block, No. 3, 4, 5	244.94
8	Deer	Block No. 1, 2, 3, 4, 5	337.25
9	Harin	Block No. 4, 5	221.44
10	Porcupine	Block No. 1, 2, 3, 4, 5	337.25
11	Nyaurimusa	Block No. 1	43.81
12	Snake	Block No. 1, 2, 3, 4, 5	337.25
13	Rat	Block No. 1, 2, 3, 4, 5	337.25

Annex 4. Some Birds

S.N.	Birds	Forest	Area
1	Eagle	Block No. 1, 2, 3, 4, 5	337.25
2	Crow	Block No. 1, 2, 3, 4, 5	337.25
3	Dangre	Block No. 1, 2, 3, 4, 5	337.25
4	Sparrow	Block No. 1, 2, 3, 4, 5	337.25
5	Bangera	Block No. 1, 2, 3, 4, 5	337.25

6	Kalij	Block No. 1, 2, 3, 4, 5	337.25
7	Pyura	Block No. 1, 2, 3, 4, 5	337.25
8	Dove	Block No. 1, 2, 3, 4, 5	337.25
9	Titra	Block No. 1, 2, 3, 4, 5	337.25
10	Luinche	Block No. 1, 2, 3, 4, 5	337.25
11	Jureli	Block No. 1, 2, 3, 4, 5	337.25
12	Koili	Block No. 1, 2, 3, 4, 5	337.25
13	Parrot	Block No. 1, 2, 3, 4, 5	337.25
14	Nyauli	Block No. 1, 2, 3, 4, 5	337.25
15	Malewa	Block No. 1, 2, 3, 4, 5	337.25
16	Lampuchhre	Block No. 1, 2, 3, 4, 5	337.25

Annex 5. Categories of Indigenous Nationalities of Nepal

Endangered Group	Highly Marginalized Group	Marginalized Group	Disadvantaged Group
Kusunda	Majhi	Sunuwar	Chhairotan
Bankariya	Siyar	Tharu	Tanbe
Raute	Lhomi (shinsaba)	Tamang	Tingaunle Thakali
Surel	Thudam	Bhujel	BaragaunleThakali
Hayu	Dhanuk	Kumal	Marphali Thakali
Raji	Chepang	Rajbangshi	Gurung
Kisan	Santhal	Gangaai	Magar
Lepcha	Jhagad	Dhimal	Rai
Meche	Thami	Bhote	Limbu
Kuswadiya	Bote	Darai	Sherpa
	Danuwar	Tajpuriya	Yakkha
	Baramu	Pahari	Chhantyal
		Topkegola	Jirel
		Dolpo	Byansi
		Fri	Yolmo
		Mugal	
		Larke	
		Lohpa	
		Dura	
		Walung	

Source: NEFIN, 2002.

Endnotes

[1] The Research Team of NEFIN Climate Change & REDD Partnership Program is composed of Pasang Dolma Sherpa, Gelu Sherpa, Khim Ghale, Kunshang Lama, and Dr. Pasang Sherpa.

[2] Strengths, weaknesses, opportunities and threats.

[3] Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

[4] Under great pressure from indigenous peoples after the restoration of democracy in 1990, the National Foundation for Development of Indigenous Nationalities (NFDIN) was established in 2002 through an Act under the MoLD. NFDIN is the permanent body established to develop, protect, and promote the socio-cultural and linguistic rights of indigenous communities.

[5] The high level Task Force for Re-identification of Indigenous Nationalities (TFRIN) was formed by the Nepal government under the MoLD in 2009. The task force has submitted its report to the government, but the government has not yet disclosed the findings.

[6] Bahra Gaunle, Bhote, Byansi/sauka, Dolpo, Lhomi/singsawa, Marphali Thakali, Mugal, Sherpa, Chumba, Tangbe, Thakali, Tingaunle Thakali, Dhokpya, and Walung.

[7] Baram, Bhujel, Chepang, Chhantyal, Dura, free, Gurung, Hayu, Jirel, Kushbadiya, Kusunda, Nubriba, Lepcha, Limbu, Magar, Newar, Pahari, Rai, Sunuwar, Surel, Tamang, Thami, Yakkha, and Yolmo.

[8] Bote, Danuwar, Darai, Kumal, Majhi, Raji, and Raute.

[9] Dhanuk, Dhimal, Gangai, Jhangad, Kisan, Meche, Rajbanshi (Koch), Santhal, Tajpuriya and Tharu.

[10] Lawa refers the turn-taking by each household of the community functions and other responsibilities. The Nawa is the main organizer of activities or the responsible person that implements the rules and regulations set by the community.

[11] The Yul-thim (community rules) is the plenary meeting of the community held regularly on particular dates or occasion to decide on resource management, religious and cultural functions, or amending previous rules if necessary. The Yul-thim aims to reach an agreed decision on the line beyond which the cattle are to be kept. This decision is handed to the Nawa in written form whose duty is to administer the rules as agreed to by this village meeting.

[12] The Nachhyang (serving of locally-produced alcohol called Chhyang) is the negotiation meeting held at the Nawa's place with the household whose cattle has damaged the crop and the affected household. In the

Nachhyang, the offending party has to bring the Chhyang and serve this to the Nawa and affected party as an apology. In case of a lot of damage, the violator has to pay compensation to the affected party in the form of crops or cash; but both the parties must agree about the type of penalty.

[13] A land/area of Limbus; historically, this area is made up of 10 Limbu kingdoms.

[14] Raikar was one of the five different forms of land tenure prevailing till mid-20th century in Nepal. It is a form of state landlordism—lands assigned to individuals were taxed, which were collected by the state usually through intermediaries.

[15] Rakam – lands conditionally assigned to individuals to provide porterage or other services to the state.

[16] Jagir – lands assigned to government employees as emoluments.

[17] Birta – land granted to individuals on the tax free and inheritable basis.

[18] Since the Constituent Assembly was dissolved in 2012, the new Constitution was not passed because the mainstream parties did not favor ethnic-based federalism. Currently, a new election process to draft a new Constitution is ongoing and indigenous peoples are still hopeful that a new Constitution would address the issues and concerns of indigenous peoples of Nepal.

[19] Allopathic medicines were recently introduced to many of the indigenous communities in Nepal. There are many communities who do not have access to modern treatment facilities such as clinics and hospitals. However, they have been using different medicinal plants and herbs found in their locality for treatment. For instance, they use barks of some tree for the treatment of lacerations or deep wounds.

[20] Messerschmidt (1974) has mentioned that early Gurung religion was animistic and shamanic, akin to the pre-Buddhist Bon religion of Tibet.

[21] NEFIN was formed in 1991 as an autonomous and politically non-partisan, national level umbrella organization of indigenous peoples/nationalities. In 2008, NEFIN categorized all the indigenous communities into six major groups for equitable benefit-sharing.

[22] Messerschmidt (1974) mentioned that the village head is called Kroh or Kraba in Gurung language, which is Mukhiya in Nepali language.

[23] There were different states known as Baise (22 states) and Chaubise (24 states). Prithvi Narayan Shah, the King of Gorkha State, unified the different autonomous states in 1768-69.

[24] The Kot massacre occurred on 14 September 1846, enabling Junga Bahadur Rana to become the Prime Minister of Nepal, and initiating the Rana regime. During the Rana regime, the King became a titular post.

[25] The Rana regime was overthrown by the democratic movement in 1951 and the interim government worked as caretaker to maintain law and order until a multiparty democratic government was formed after the election in 1959. But the elected government was suspended by the King and a Partyless Panchayat system was introduced in 1960.

[26] Mukhiya, Jimmawal, Katuwal, etc. are different titles given to individuals who are tasked with responsibilities such as land revenue collection, conservation and management of forest resources during the Rana regime. However, there are no specific dates and documents or terms of reference to such posts.

[27] Lalmohar or red seal was the code introduced during the Rana regime, which gave official value to diplomatic documents from the King.

[28] Tol refers to groups of households at a particular area, which are closer in terms of distance. Tol Ban is the forest allocated to the particular Tol to manage and utilize as forest resource.

Bibliography

Bhattachan, Krishna B. 2002. "Traditional Local Governance in Nepal." Paper presented at a national seminar on Strengthening Decentralization and Good Governance in Nepal organized by the Political Science Association of Nepal and Friedrich-Ebert-Stiftung: April 21, Kathmandu.

Bista, Dor Bahadur. 2004. *Peoples of Nepal*. Kathmandu: Ratna Pustak Bhandar.

CBS. 2001. *Population Census of Nepal*. Kathmandu: National Planning Commission.

DDC Lamjung. 2007. *District Profile of Lamjung*.

Dhakal, Suresh. 1996. "Bheja as a Strategic Cultural Convention Community Resource Management." Occasional papers in Sociology and Anthropology, Central Department of Sociology and Anthropology, Tribhuvan University, Kathmandu.

Furer-Haimendorf, Christoph Von. 1964. *The Sherpas of Nepal: Buddhist highlanders*. New Delhi: Oxford Book Company and Scindia House.

Galloway McLean, K., et al. 2009. "Report of the Indigenous Peoples." Papers presented at Global Summit on Climate Change: 20-24 April, Anchorage, Alaska.

Gautam, K.H. 1991. *Indigenous forest management systems in the hills of Nepal*. MA. thesis, Australian National University.

Gurung, H. 1998. *Nepal Social Demography and Expressions*. Kathmandu: New ERA.

Gurung, O. 1978. *The Gurungs, their History and Culture*. MA thesis, Tribhuvan University, Kathmandu.

Gurung, Om. 1999. "Local Institutions, Cultural Practices and Resource Management in a Mountain Village of West Nepal: Anthropology and Sociology of Nepal: Culture, Societies, Ecology and Development." SASON, Kathmandu.

HMG/N. 1993. Forest Act.

KCFUG. 2061. Khasur Community Forest User Group Management Plan 2061.

Lama Kunshang. 2008. "Tamang Traditional Knowledge on Forest Management and Rights of Indigenous Peoples." A sociological study, Tribhuvan University, Kathmandu.

Lewis, M. Paul, ed. 2009. *Ethnologue: Languages of the World*. 16th ed.. Dallas, Texas: SIL International.

Lhenge, Gurung. 2011. *Ethnographic Profile of Gurung Community*. Research report submitted to National Foundation for Development of Indigenous Nationalities, Lalitpur, Nepal.

Limbu Arjun. 2004. How the indigenous Limbu peoples of Nepal lost their land? In *Reclaiming Balance: Indigenous Peoples Conflict resolution and Sustainable Development*, eds. V. Tauli-Corpuz and J. Cariño, 111-112. Baguio City: Tebtebba Foundation.

MacFarlane, A. 1976. *Resources and Population: A study of the Gurung of Nepal*. London: Cambridge University Press.

Macfarlane, Alan. 2003. *Resources and population: A study of Gurungs of Nepal*. Kathmandu: Ratna Pustak Bahndar.

Magar, Min Sris. 2011. *Ethnographic Profile of Magar*. A research paper submitted to National Foundation for Development of Indigenous Nationalities, Lalitpur.

Messerschmidt, D. 1976. *The Gurungs of Nepali Conflict and Changes in a Village Society*. New Delhi: Oxford and IBH.

Messerschmidt, D. A. 1974. Social status conflict and change in Gurung Community of Nepal. Ph.D. diss., University of Oregon.

Nepal Government. 2002. National foundation for development of Indigenous Nationalities Act.

Pignede, B. 1974. *The Gurungs: A Himalayan Population of Nepal*. Kathmandu: Ratna Pustak Bhandar.

Rai, Tikaram, and Makhanlal Hirachan. 2011. *Ethnographic Profile of*

Marphali Thakali. A research paper submitted to National Foundation for Indigenous Nationalities, Kathmandu.

Regmi, Mahesh C. 1978. *Land Tenure and Taxation in Nepal*. 2nd ed. Kathmandu: Ratna Pustak Bhandar.

Sangraunla, Narayanprasad. 2011. Kipat System of Pallo Kirat. A research paper. Manuscript.

Sherpa, Lucky. 2004. "A Report on the Indigenous Peoples, Gender and Natural Resource Management." A research paper submitted to KULU-Women and Development, Kathmandu.

Sherpa, Pasang Dolma, et al. 2010. *Land, Forest, and Indigenous Peoples' Rights in Relation to Climate Change and REDD*. Kathmandu, Nepal: NEFIN.

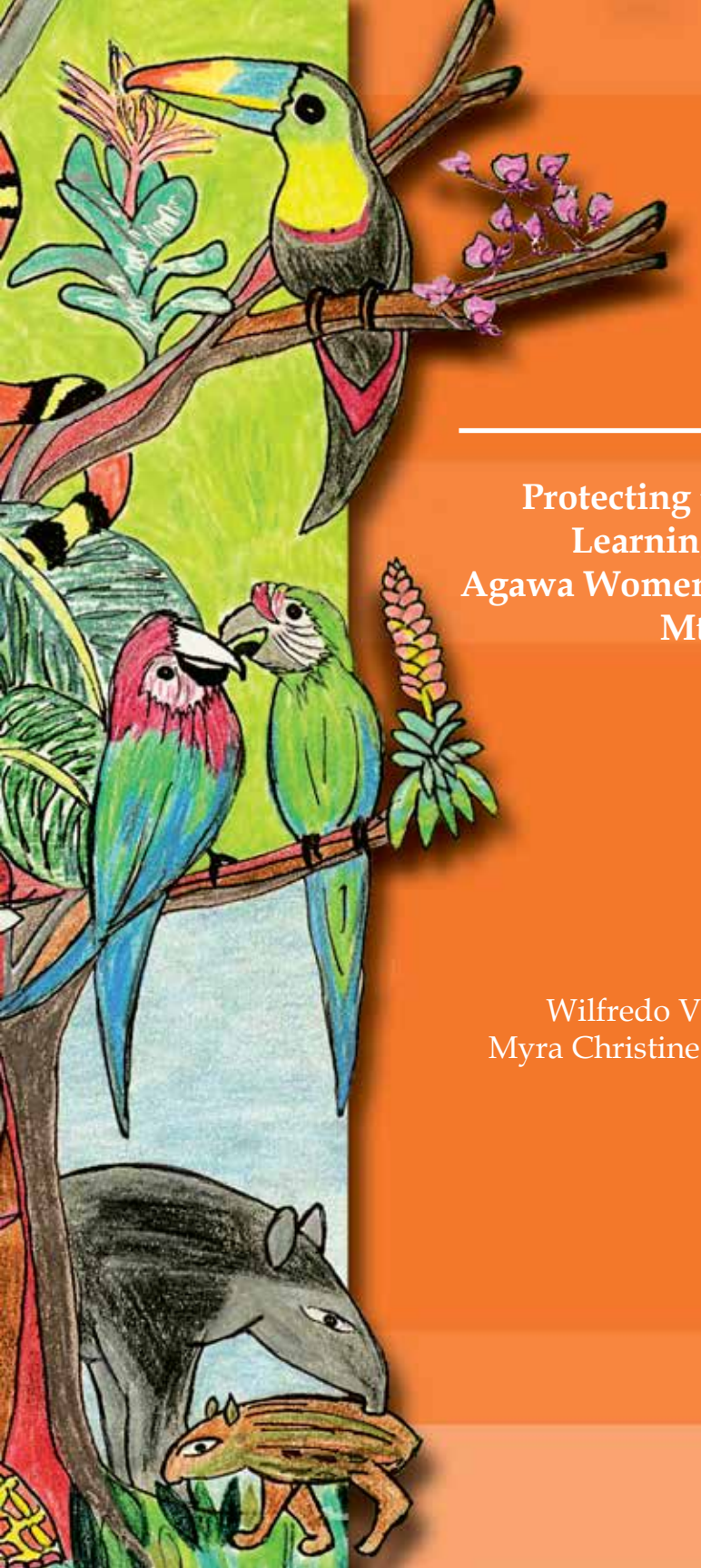
Nepal Government. *The Constitution of Kingdom of Nepal 1990*.

Nepal Government. *The Interim Constitution of Nepal 2006*.

Tumbahang, Gobinda B. 2011. Ethnographic Profile of Limbu. A research paper submitted to National Foundation for Indigenous Nationalities, Lalitpur, Nepal.

UNDRIP. 2008. UN Declaration on the Rights of Indigenous Peoples, Office of the UN Human Rights Commission, Kathmandu.

Upadhyaya, Bhawana. 2005. Women and Natural Resource Management: Illustrations from India and Nepal. *Natural Resource Forum*, 29 (2005): 224-232.



5

Protecting the Forest: Learning from the Agawa Women of Besao, Mt. Province

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Introduction

In many indigenous communities, women maintain an intimate relationship with the forest. Indigenous women take a lead in sustainable forest management and conservation because their forests are integral to important socio-cultural and economic activities of the people.

Understanding the role performed by indigenous women in sustainable forest management and conservation is necessary in the current discourse on climate change, especially in the context of the United Nations' Reducing Emissions from Deforestation and Forest Degradation, Conservation, Sustainable Management of Forests and Enhancement of Carbon Stocks (REDD Plus). The objective is not only to inform the development of appropriate REDD Plus policies and programs but also to underscore the need to ensure that indigenous women's rights and interests are recognized and protected in such policies and programs. However, there continues to be a lack of recognition in national policies on the role and contributions of women in forest conservation and protection.

The study on the role of indigenous women in forest management and conservation is part of Tebtebba's initiative entitled "Ensuring Rights Protection, Enhancing Effective Participation of and Securing Fair Benefits for Indigenous Peoples in REDD Plus Policies and Programmes."[3] Within the overall framework of the Norad-funded project, this small research in partnership with the University of the Philippines Baguio aims to contribute to understanding the role of indigenous women in forest management and conservation in the village of Agawa, in Besao, Mountain Province, northern Philippines.

The specific objectives of this research are:

1. To document the Agawa women's traditional knowledge and practices in a particular forest ecosystem, highlighting those that may contribute to REDD Plus, promotion of cultural diversity and biodiversity;
2. To describe the social and cultural context within which the women perform and develop their knowledge and practices on forest management;
3. To identify challenges to Agawa women's traditional knowledge and practices on forest management, as well as issues they currently face; and
4. To identify the various actions and responses of the Agawa women to these issues and challenges, and to provide recommendations on how to further address them.

The village of Agawa was chosen because communal forest management is still practiced by the people and indigenous socio-political systems continue to be relatively intact. The assumption is that the extent of women's involvement in traditional forest management, especially among indigenous peoples, is a reflection of the vitality of their Indigenous Knowledge Systems and Practices (IKSP).

In this research, we consider the Agawa women's access to the forests—both the pine forest and the rainforest—including the multiple uses and impacts of these resources in relation to the women's daily activities as housekeepers and small-owner tillers and gardeners, and as community members and leaders.

Methodology

This study is a case study on the role of women in forest management particularly in the village of Agawa, Besao, Mountain Province. The primary reason for the choice of this methodology is that a case study can bring about a story about the role of women in forest management that is "unique, special or interesting" (Yin 2003). As a methodology, a case

study is an empirical strategy that thoroughly investigates a phenomenon within its real life context (Yin 1989; 2003). Hence, as a case study on indigenous women and forest management, we might be able to understand why and how things happened and the differences between what was planned and what actually occurred, within the contextual realities (Anderson 1993, cited in Yin 2003).

As a qualitative research, two methodologies in data collection were employed. These are the Key Informant Interview and Focus Group Discussion. In-depth interviews with key informants were aided by semi-structured interview guide.

Selection of Respondents and Data Collection

The participants were chosen on the basis of their age. Elderly men and women were preferred as they remain to be the holders of knowledge and experiences related to forest management.

The key informants were three elderly women and three elderly men from the community. They were selected based on the recommendations of the community members, an acknowledgement of their knowledge about the whole village, as well as matters pertaining to the forests. Data gathering stopped when the researchers believed that a saturation point had been reached—that point in time when repetition of collected information occurs and no new data emerges (Minichiello, et al. 1990 in Palaganas, et al. 2001).

Focus group discussions were also conducted—one for women and one for men. The FGD for women involved 11 women elderly while the FGD for men had five participants. The FGDs generated information, ideas, opinions and stories from the participants about the importance of the forest to them and to the community. The discussions focused on the symbiotic relationship of women and the forest and why the women are keen in forest management and protection. The FGDs served to validate earlier data gathered from the key informants.

Data Processing and Data Analysis

By employing case study as a methodology, and with the use of FGD and Key Informant Interviews as data gathering methods, the researchers organized the information generated based on themes, patterns, and categories that emerged during the gathering of data, which commenced data analysis. All information were noted down during interviews and then later categorized into a more systematic and analytical form for logical presentation in the report.

Data analysis was not isolated from data collection. Both were done simultaneously and were a continuous process, which allowed the researchers and the participants to interpret meanings accurately during the data gathering phase. These facilitated a more manageable volume of data and avoided uncontrolled biases and misinterpretations.

Entry into the Community

One of the researchers has continuing relations with the Agawa community. He lived in the community for six months between the years 2002 to 2003, and has maintained personal acquaintances. This facilitated our entry. Still, we met with some municipal officials who were from Agawa and with village leaders and intellectuals to explain our research objectives. We promised confidentiality of the respondents, but one woman leader who served as key informant said she may be identified as a respondent. She is featured in the Herstory part of this research report.

Review of Related Literature

For many indigenous peoples, the forest is a source for "fuel, grasses and fodder on a daily basis" (Sherpa 2011), wood, lumber, wild fruits, nuts, berries, herbs and spices, medicines, animals; provider of water; musical instruments, clothes and other things (Chirapaq 2011); their playground and training

ground for their children (See 2001); and a sacred place for important community rituals and rites of passage (Riamit 2011). Because of this reliance on forests for their survival, indigenous communities have evolved a wealth of knowledge on forest management that have been practiced for centuries, and improved on continuously based on experience. These forest management systems are now integral to their identities as peoples and embedded in their cultures.

Given the centrality of forests in the life of indigenous peoples, it is not surprising for indigenous women to lead in the practice of community-evolved sustainable forest management and conservation. Some of the documented specific roles of indigenous women in forest management include, but not limited to, controlling the use of water and in making sanitary arrangements (Sherpa 2004; Alangui 2010); cutting, thinning, pruning, underbrushing, weeding, cleaning, and bush clearing (See 2001; Sherpa 2011); active involvement in reforestation programs (Sherpa 2004); guarding the forests for forest fires and possible theft of forests resources (Sherpa 2011); and observance of norms and taboos as "effective ways of ensuring sustainable forest management" (Tauli-Corpuz 2011).

As documented in the 2011 book *Indigenous Women, Climate Change and Forests* published by Tebtebba, indigenous women have a "great deal of knowledge about their environment" (Fenly 2011); they are able to develop adaptation strategies in the face of climate change and disasters (Sherpa 2011; Fenly 2011); and women play a vital role in reproducing indigenous culture because they are responsible for raising and educating the youth (Velasquez 2011).

However, the researches featured in the book also underscored the fact that the involvement of indigenous women in traditional forest management and governance varies across cultures and societies. In many indigenous communities, marginalization of women continues because of lack of education and technical knowledge, as well as lack of control over land and other resources (Sherpa 2004), restrictions on access to forest resources (Lelewal 2011), and prevailing gender bias and patriarchal structures (Sherpa 2011).

It is clear that indigenous women face difficulties even as they perform (and are expected to perform) important roles in protecting the forests and the environment. However, across cultures and societies, indigenous women continue to exercise and assert their agency in protecting vital resources such as their forests, and in effecting positive change in their lives, and in their communities. As expressed by Velasquez (2011, 163):

> *The elements that make it possible for indigenous women to exercise their rights to participate in the political, social, cultural and economic management of [their] territory are the [indigenous] principles. From the women's point of view and experience they are the ones who contribute a wealth of knowledge for preserving the territory as a space of life. This particular contribution that the women make is essential for strengthening indigenous governance in its quest for equality between men and women as basis for the harmonious coexistence between human beings and their surroundings.*

Conceptual Framework

The discourse on women and the environment has gone through several upheavals, from the early Women In Development (WID), which saw "the use of 'women' as a universal, undifferentiated category and the unidimensional emphasis on women, per se, as opposed to an exploration of the full scope of gendered social relations" (Schroeder 1999, 7) to Women And Development (WAD), and later to Gender And Development (GAD).

The proponents of WAD believed that substantive change for women could not result from simply reforming the existing male-dominant and top-down approaches to development (Schroeder 199). They instead advocated for a grassroots program of participatory, women-only projects (Parpart 1995, cited in Schroeder 1999). GAD, on the other hand, "took

as its point of departure a critique of the essentialist views of 'women' embedded in both WID and WAD approaches" (Schroeder 1999, 8).

One of the key GAD concepts is that of the triple role, or the gender division of labor. Moser (1993, 29) asserts that

> *[I]n examining the different roles of women and men, the gender division of labour provides the underlying principle for separating out and differentiating the work men and women do. It also provides the rationale for the difference in value placed on their work. This accounts for the link between the gender division of labour and the subordination of women.*

In her 1993 book Gender *Planning and Development: Theory, Practice and Training*, Moser talks about the triple roles of women. These are: reproductive work, productive work, and community managing and community politics (Moser 1993).

According to Moser (1993, 29), reproductive work comprises the childbearing/rearing responsibilities and domestic tasks undertaken by women, required to guarantee the maintenance and reproduction of the labor force. This does not only include biological reproduction but also covers the care and maintenance of the workforce (husband and working children) and the future workforce (infants and school-going children).

On the other hand, productive work is defined as "work done by both women and men for payment in cash or kind. It includes both market production with an exchange value, and subsistence/home production with an actual use-value, but also a potential exchange value" (Moser 1993, 31). For women who engage in agriculture, productive work includes work as independent farmers, peasants' wives and wage workers (Moser 1993). In this study, the following activities may be classified as productive work: all activities related to rice farming and vegetable growing, livestock raising, and off-farm or non-agricultural work such as handicraft making and small businesses.

The third role pertains to community managing and community politics. Moser (1993, 33) defines this as "activities undertaken primarily by women at the community level, as an extension of their reproductive role." Moser (1993) argues that the role ensures the provision and maintenance of scarce resources of collective consumption, such as water, healthcare and education. It is voluntary unpaid work, undertaken in "free time" (Rovillos, Alangui, Dasig, Ram, Sanchez, and Tolentino 2010).

These triples roles are relevant in understanding and explaining the relationship of the Agawa women to their forests, their adherence to sustainable forest management practices, and their active involvement in protecting this community resource.

Another perspective is related to a feminist environmentalist position often identified with the work of Bina Agarwal (Schroeder 1999). Basing her arguments from the experiences of women in India, Agarwal points out that "women are deeply involved in environmental management by virtue of the simple fact that they do so much of the physical labor in their respective societies" (Agarwal 1982, cited in Schroeder 1999, 12). Drawing water, gathering firewood, cultivating crops, processing and storing food, and collecting medicines and applying treatments—these tasks are often the primary, if not sole, responsibility of women (Rodda 1991, cited in Schroeder 1999).

> *According to Schroeder (1999), because of the disproportionately heavy workload in these areas, women are often directly disadvantaged by environmental degradation and decline as the labor required in performing routine tasks increases. By the same token, since women are directly responsible for day-to-day management of many vital resources, they constitute the key to success in promoting new strategies of environmental rehabilitation and repair. It is their regular contact with the resource base, born of specific work responsibilities, then, rather than some sort of natural symbiotic relationship, that has given particular groups of women privileged knowledge of resources their communities depend upon (Schroeder 1999, 13).*

Feminist environmentalism looks at the social, economic, and political structures within which gender constructs are produced and transformed. This is much like feminist political ecology which treats gender as "a critical variable in shaping resource access and control, interacting with class, caste, race, culture, and ethnicity to shape processes of ecological change, the struggle of men and women to sustain ecologically viable livelihoods, and the prospects of any community for 'sustainable development'" (Rocheleau et al. 1996, cited in Schroeder 1999).

Agarwal (1992) states that rural women forest dwellers and cultivators could "be seen as both victims of the destruction of nature and as repositories of knowledge about nature, in ways distinct from the men of their class. The former aspect would provide the gendered impulse for their resistance and the response to environmental destruction. The latter would condition their perceptions and choices of what should be done. Indeed, on the basis of their experiential understanding and knowledge, they could provide a special perspective on the processes of environmental regeneration, one that needs to inform our view of alternative approaches to development" (Agarwal 1992, cited in Schroeder 1999, 13-14).

Furthermore, it is not enough to realize that women posses knowledge and skills about forest management and governance. Jackson (1993) reminds us that "an emphasis on the simple fact that women possess key environmental knowledge obscures the difficulties of gaining access to that knowledge and making it the basis of a program of environmental initiatives" (Jackson 1993, cited in Schroeder 1999, 14). Another important reminder comes from Leach (1994) in her study of the gendered nature of forest politics in Sierra Leone. Summarizing Leach, Schroder (1999, 14) states that the observation that women are highly dependent on the environment for meeting their needs, and thus important targets for incorporation into environmental management programs, might well "impl[y] that any outside intervention would be a help, and that women would willingly participate because they have no choice" (Leach 1994, 25, cited in Schroeder 1999). Similarly, recognizing women as "managers" of the

environment very quickly becomes "assets to be 'harnessed' in resource conservation initiatives" (Leach 1994, 25, cited in Schroeder 1999). According to Leach (1994, 34), this "runs the risk of giving women responsibility for 'saving the environment' without considering whether they have the material resources to do so."

These perspectives would again explain the Agawa women's "resistance and response" to threats to the forest, as well as the course of actions and choices that they have made in relation to their reproductive and productive roles as women. Another important point relates to the need of providing the enabling environment (for example, access to material and economic resources) that will allow women to continue with their role in sustainable forest management.

In the context of the current REDD Plus discourse, the triple roles of women and the constructs pushed by feminist environmentalism and feminist political ecology are important perspectives to consider in ensuring that REDD Plus programs and projects will adequately respond to the issues and concerns of (indigenous) women regarding their forests.

Data Presentation and Analysis

Community Profile

The research site Agawa is one of the 14 villages in the Municipality of Besao, in Mt. Province, which is one of the seven provinces in the Cordillera Administrative Region (CAR) in northern Philippines. The village of Agawa is approximately 28 km away from Bontoc, the provincial capital of Mt. Province. It belongs to what is called i-Agawa communities that include the nearby villages of Gueday, Lacmaan, Ambaguiw and Tamboan.

Figure 1. Map of Besao



Agawa had a total population of 407 in 2000. Of this, 186 were female and 221 were male (NSO 2000). Based on barangay (village) records in 2011, the population of Agawa increased to 435, with 196 females (45.10%) and 239 males (54.90%). They comprise a total of 122 families over 94 households. This population is distributed over six subdistricts (a subdistrict is called a sitio or purok), namely, Nabanig, Kabog, Eengan, Bilig, Tamkang, and Tantanap.

Of the 435 population in 2011, 100 people (almost 23%) belong to age range of 0-10 years, 34 (or 7.81%) belong to age range of 61-95 years, which means that around 92.19% of the population have ages below 61 years.

Political Life

As in the rest of Besao, the dap-ay continues to be an important socio-religious and political institution in Agawa. Brett (1985) lists some of the important tasks of this institution, which comes under the direction of a council of elders, the amam-a or lallakay (the male elders). The tasks include coordinating activities of the agricultural cycle, settling disputes within and outside the communities (for example, boundary issues), regulating inter-village affairs, and coordinating rituals for dap-ay members.

As a physical structure, "it is a stone-paved platform for ceremonial purposes, a lounging place for men during 'rest days' or ceremonial occasions, and serves as a sleeping hut for boys, bachelors, and widowed men" (Brett 1985, 129). As the center of religious rites, a place where people meet and settle disputes, hold meetings, and where elders and boys gather to socialize, the dap-ay serves as an important institution of learning (Alangui 1997) where the young learn the values of the i-Agawa. Each family belongs to a specific dap-ay, and this membership depends on the purok or sitio to which that family belongs. The dap-ay marks the political division of the village (Tauli-Corpuz 2001). This means that there is one dap-ay for every purok or sitio; thus there are six in Agawa.

It is acknowledged in Besao that unity is a strong characteristic of the i-Agawa communities, and such unity is expressed in their organized dealings with ongoing boundary issues and ownership claims over the pine and mossy forests that border their communities with Tubo, Abra and Quirino, Ilocos Sur. There is also a continuing boundary issue with the Municipality of Sagada, centered on a lake that separates the two municipalities.

Gueday is believed to be the original village of Agawa where most of the i-Agawa communities originated. As the "mother" settlement, the elders of Gueday are also recognized as the most knowledgeable about the history of the i-Agawa communities, as well as ritual practices. They play crucial roles in boundary settlement talks with adjacent villages because they are the ones knowledgeable about the extent of their

ancestral territories (Alangui 2010).

In the past, they collectively opposed logging and mining operations in their area (the role of the Agawa women in these struggles is one of the highlights of this study). In early 1990s, the i-Agawa communities formed the organization LAGAT (from Lacmaan, Agawa, Gueday, Ambaguiw and Tamboan) to strengthen their means of protecting their ancestral domain (CSG 2001a).

Economic Life

The cultivation of irrigated rice, grown in their extensive rice terraces, provides subsistence for most of the people in the village. Root crops like peanuts are also grown, as well as corn and sugarcane. In Agawa, cash comes from labor, livestock and retail business. A majority of the households are engaged in rice farming, and there is a small percentage of adult female and male who are regular wage earners from farm and non-farm jobs. In 2000, 80 percent (80%) of the households owned the farms that they cultivated (ILO 2000).

When asked to name three main problems in Agawa, both men and women gave economic-related issues (cost of agricultural inputs, distance to the fields, absence or lack of jobs).

Of the 122 families in 2011, 13 families were beneficiaries of the government's Pantawid Pamilyang Pilipino Program or the Conditional Cash Transfer program, a World Bank-funded poverty reduction strategy of the Philippine government that provides monetary aid "to extremely poor households to improve their health, nutrition and education particularly of children aged 0-14" (e-turo 2012).

There are two types of forest in Besao—the pine forest (batangan) and the mossy forest (kallasan/pagpag). These are both found in the area surrounding the i-Agawa communities. These forests are central to the survival of the people in the communities. They contain various hardwood varieties that are used for timber and farm tools, as well as the source of some medicinal plants. The kallasan are also hunting grounds

for several wild animals that include wild chicken, wild pig, deer, civet cat, wild cat, python, and large lizard (Besao Ancestral Domain Management Plan, 2003). Hunting is popular among the men of Agawa. The people are also aware of the importance of the forests as a provider of water (mangited ti danum).

Linapet and the Agricultural Cycle

One practice that gathers the i-Agawa people is the annual observance of "linapet" (Fiar-od 2001), celebrated every 30th of September (or the 29th on a leap year) to signal the planting of taro or the sowing of seeds. Linapet is a practice unique to the i-Agawa. This was supposedly the time of the year when the sun's rays pass right through the center of two huge rocks called Ambaon Bato in Mount Langsayan, a phenomenon that used to be seen from a designated rock in Awaw Dap-ay in Gueday at sunrise (Besao Ancestral Domain Plan 2003). This rock is called Calendar Bato (Figure 2).

This phenomenon can no longer be witnessed "because the location of the Calendar Bato has sunk and pine trees have grown near Ambaon Bato" (Besao Ancestral Domain Plan, 2003, 17). Nevertheless, the i-Agawa communities still mark this occasion, where each household cooks linapet, a patty of two layers of ground rice with mud fish and dried or smoked meat or peanut for filling, wrapped in banana leaves and steamed (Besao Ancestral Domain Plan 2003, 10; Fiar-od 2001).

Fiar-od (2000) documented the traditional agricultural cycle in Besao, although this was a slight variation to that done in Agawa following the custom of linapet. In general, the agricultural cycle is like a seasonal calendar, determined not by looking at the moon but by signs from the immediate environment.

Figure 2. The Stone Calendar of Gueday



According to Scott (1958), the seasonal year may be defined as a completion of a cycle of any number of seasons determined by non-astronomical observations of the environment, like the coming of rain, the flowering of plants, or the migration of birds.

For the early Agawa farmer, the start of the sowing of seeds was signaled by the phenomenon at Ambaon Bato, and the chirping of the bird kiling, which supposedly meant that the end of the typhoon season has come. This coincides with the months of October (Lonogan 1998) and November (Fiar-od 2000). When the baby kiling bird cried "ki-ik," it meant that it was time to sow, and when the same bird developed into a full-throated kiling, it meant that it was time to transplant the same rice (Scott 1958). Transplanting was normally in December, the season of ladew, a tree which started to bear fruits during this time. Below is based on Lonogan's reconstruction of the old Agawa agricultural cycle (Lonogan 1998, cited in Alangui 2010):

- Kiling (October), sowing of rice grains on seedbeds;
- Tikang (November), plowing of rice fields. Tikang signaled start of dry season;
- Ladew (December), planting season;

- Opok (January), peak of planting season; also the season of forest fires (opog);
- Bakakew (February), start of hunting season; this was the time when the plant bakakew and other wild trees in the forest bore fruits, which the wild animals fed on;
- Kitkiti (March), ricefield watering; this is the peak of the dry season and time to make clearings for swidden farming (kaingin or uma); grasses were too dry and easily burnt; the word kitkiti was derived from the word kumitikiti, the sounding of the grasses;
- Kiang (April), cleaning of ricefields, pathways and preparation of rice wine; kiang means "to rise from the water" (which referred to tadpoles developing strong legs to enable them to rise from the water); also time for lebek, the milling of sugar cane;
- Pannaba (May), season for Begnas (a community feast where animal sacrifices and prayers are offered to the ancestral and nature spirits); this is the time when the pannaba tree starts bearing fruit;
- Adawey (June), early rains, time to take buffaloes and cows to the mountains for grazing; season to observe Obayan di Kilkilaw (Feast of the Scarecrow) to protect the grains that are starting to form from the biding, birds feast on young rice grains; this is the time when the adawey tree starts bearing its fruit;
- Luya (July), peak of harvest season; luya also means aani (harvest time);
- Tiway (August), peak of rainy season; time for planting taro, or lakat; Obayan di Lakat (Feast of the Taro) is observed;
- Adog (September), testing of seeds; time to watch over the stone at Awaw Dap-ay; adog means "to watch"; signals the start of a new agricultural cycle for the i-Agawa.

A more nuanced and current agricultural calendar is provided below, showing the period for planting and harvesting rice and other crops. With respect to planting and harvesting rice, this calendar also has slight changes from the "old" agricultural calendar presented in Lonogan (1998), which was presumably based on the stone calendar.

Table 1: Current Agricultural Calendar

	Main Crop (Rice)	Second Crop (Rootcrops)	Third Crop (Corn, Peanuts)	Fourth Crop (Vegetables)
Planting Months	January-March	August	March-May	October
Harvest Months	June-August	January	July-August	December

Source: ILO Nationwide Application of the IRAP III Project.

Religious Life

The i-Agawa, though Christian, continues to adhere to a traditional religion, which Tauli-Corpuz (2001, cited in Alangui 2010) calls "sinan-adum ay pammati" (ancient or traditional religious beliefs). The key elements of this religion, already hinted above through the observance of obaya and the ritual begnas, are provided below based on Tauli-Corpuz (2001) and Scott (1974).

- Living things are attributed with souls and spirits. When a person dies, her or his soul will become a spirit (anito), which will reside nearby.
- A major religious concern is the placation of spirits of the dead (anito) through animal sacrifices in communal ceremonies.
- Spirits are invoked to partake of the sacrificial meat or wine and are requested to bring good fortune, bountiful harvest, and good health.
- Spirits make their presence and wishes known through shamans (mensip-ok) and male priests (mensapu).
- Land formations, water bodies, rocks, etc., are believed to host spirits who protect them from pollution or destruction.
- Deities have particular roles to play.
- There is a belief in the Creator, or the god Kabunyan. Prayers of intercession are done through the ancestral spirits.
- There are specific religious rituals for each stage of the agricultural cycle in which specific roles are played

by male elders, older women and young men and women.

Aside from the dap-ay, another sacred space for the Igorot (collective term for indigenous peoples of the Cordilleras), and hence, the i-Agawa, is the patpatayan, a tree where elders offer prayers to Kabunyan. It is taboo to cut the branches of this tree or urinate or defecate under it (Fiar-od 2001).

Because ritual pervades the life of the i-Agawa, the amam-a, or elders who can facilitate the various rituals, occupy a respected position in the village. At times, a ritualist is also a highly skilled stonewaller, as well as an elected political leader in the village.

Agawa Women's Access, Uses, and Knowledge about the Forest

The Agawa women are knowledgeable about their surrounding environment. They can easily identify the various mountains (bilig) that surround their community, namely Binang-owaw, Indad-ao, Tagitagan, Pokpoktiyaw, Datacan, and Kadaddaanan. Langsayan used to be a pasture land which became a mossy forest.

As mentioned earlier, the community of Agawa has access to two types of forests—the pine forest, locally called batangan, and the mossy forest, locally known as pagpag. The pine forest is abundant with *Pinus kesiya* (or *Pinus insulares*), the most distributed pine tree in Asia having been found also in India, Thailand, Burma, Laos, Vietnam, and China. In the Philippines, it is popularly referred to as Benguet pine or Baguio pine. The batangan is also the community's source of rattan, a material which they use for poles in their gardens and also a good material for basket weaving.

The communal pine forest is the community's source of pine lumber for construction of houses and materials for furniture and fixtures (including coffin), but these are for subsistence use only. In the indigenous socio-political system,

selling of pine lumber is strictly prohibited. Violation of this indigenous law will require the violator to pay a fine of Php500.00 (US$12.00) or more depending on the amount imposed by the Council of Elders.

Figure 3. The Agawa community and their pine forests



"Outsiders" or those who are not from Barangay Agawa, are not allowed to get anything from the batangan. For women, the nearest batangan is where they gather firewood. Saleng or pine peat are good fuel and also used as torches. In the process of gathering firewood, the women said that they are also cleaning a part of the forest (usually the area nearest to the community). This is one role women perform in relation to forest management.

On the other hand, the pagpag or the mossy forest is abundant with wild fruits, such as agubangbang, bugnay and degway. Some plants and trees with medicinal value are also found in the pagpag. The research showed the knowledge of the Agawa women on the medicinal value of some plants that are found in the forest. The table below shows the plants and trees with medicinal value and their uses as relayed by the women respondents.

Table 2. Some Medicinal Plants

Medicinal plant/tree	Uses	Parts used
Kudelat	For cleansing; believed to be anti-cancer	leaves
Payen (oak tree)	Purgative	fruit
Kuba	Menstrual pain; wounds	bark
Labay	For embalming	roots, leaves
Dail	For stomach pain	leaves

The women also explained how these medicinal plants are prepared: kudelat leaves are boiled and may be taken in as tea, while the bark of kuba is battered until it is soft enough to be applied to the wound.

While hunting is strictly an activity for the men, the women are aware of what may be hunted from the mossy forest. They said that the men hunt wild animal like alingo (wild boar), ugsa (deer), igat (eel) and wild birds.

According to the women, the small mossy forest is also where the community members (mostly men) gather wild mushrooms. The women respondents were able to identify 14 varieties of wild mushrooms that may be found in their forests. Again, even as they concede that gathering wild mushrooms usually involve the men, the women are also knowledgeable on the variety of wild mushrooms that are available from the forest. The table below is a list of the identified varieties of wild mushroom and the months when they are abundant.

Table 3. Mushroom Varieties

Type of mushroom (Local term)	Months abundant
Tabtabaan	April
Panpanitan	April
Kaputan	April to May
Ul-ulingan	April to May
Dawayan	April to August
Dungo	July to August

Damino	July to August
Uong	July to August
Lumsek	July to August
Galetgetan	July to August
Gikgik	July to August
Buo	July to August
Taga	July to August
Uong di Anito	July to August

The women's knowledge about the different varieties of mushrooms available in the forest includes other information. For example, tabtabaan and panpanitan may cause dizziness if taken excessively, while taga is inedible. Stories about the hallucinogenic effect of taga to local people who have tried eating it refrain the community people from harvesting this variety (others insist that this variety is edible depending on how it is cooked). They also know that galetgetan, gikgik and lumsek may be found in Mt. Madango, which is located above the neighboring village of Gueday. These mushrooms grow under the pine trees, and normally appear during the rainy season, especially after an overnight downpour.

According to the women respondents, mushrooms have become a source of livelihood for them. Some varieties, if abundant, are sold in the nearby tourist town of Sagada. Galetgetan, for example, sells at PhP50.00/kilo ($1.20); while gekgek, which can be preserved, sells at PhP70.00-80.00/kilo ($1.60-1.90). The most expensive variety is lumsek, which sells at PhP100.00/kilo ($2.30).

Since the area is in a regional tri-boundary with the provinces of Abra, Ilocos Norte and Mountain Province, the pagpag is shared with the residents of these provinces, the nearest of which is Tubo, a municipality of Abra province. Pagpag is then known to be the territory of hunters from these provinces. Nevertheless there is no history of animosity among the ethnic groups. The Agawa people would know if they are already in Tubo because of a changed landscape as indicated by the flora and fauna. Some families from Besao, in fact, have migrated

to Tubo and established a community where they opened up farms and gardens, planting sweet potato, legumes and other vegetables, and corn.

In general, both the women and men respondents agreed that many of the things that come from the forest complement the daily needs of the community, from the most basic need for firewood, to food, other alternative sources of livelihood, and water both for daily consumption and for agriculture. But because it is very far from the community center (it is estimated to be a one-day walk, and the only portion most of the women respondents have reached is an hour and a half walk from the Agawa), only the able-bodied males (mostly hunters) are the ones who usually get to the forests.

Cultural Beliefs and Practice about the Forest

One of the beliefs the women hold on to up to now is that there are unseen spirits and entities living in the forests that take care of all the resources found within. According to them, an evidence of this is the community's experience when one of the farmers tried to divert the flow of the river towards his garden. Suddenly the volume of water in the river decreased and it only came back to its volume when the farmer put back the river to its original course. This incident made stronger their belief that there are spirits guarding the river.

With respect to caring for the river, one rule which they imposed on themselves is to keep the river clean: do not pollute or soil the river in order not to get the ire of the spirits that guard the river. The women respondents seemed to understand the importance of this belief about not displeasing these spirits: they know that keeping the river clean is necessary because this is where they get water for irrigating the ricefields and for their household needs.

The Agawa women are aware about the sacred sites in and around their forests. They consider the binang-owaw mountain, for example, as sacred to them. They explained that it is sacred because it is "puon ti danum," the main source

of water. Because of this, the mountain should be protected from fire and any kind of disturbance that might endanger the water source.

Another belief pertains to their ancestors. The burial grounds of their ancestors are considered sacred places so anyone who will disturb them will experience misfortunes in that person's life. Burial sites are usually close to their forests, which is another reason why they avoid what they consider as destructive and unsustainable practices.

While there have been changes in religious and spiritual beliefs, the Agawa women said that they continue to practice what Tauli-Corpuz (2001) described as "sinan-adum ay pammati," especially in relation to beliefs and practices to protect the forests and the resources within. However, they also said that such beliefs and practices might eventually be lost if the younger members of the community continue to be nonchalant and remain a bit indifferent to their indigenous knowledge systems and practices. A general sentiment expressed by our respondents is the view that "sabali ti uubbing tatta" (the children are different now) when asked on how they ensure that their IKSP are passed on to the younger generation.

Agawa Women's History of Resistance

The history of the Cordillera people fighting against programs and projects resulting to environmental degradation would always include the militant participation of women. The Agawa women have their own stories to tell on how they were able to oppose projects that threatened their forests and the environment. The first involved an attempt to put up a sawmill operation in the 1940s, and the other, around 30 years later, revolved around an illegal resin-tapping activity. The stories below were gathered from the FGDs as well as from the key informants.

The Sawmill Operation and the Agawa Women: Employing a Time-Honored Form of Protest

Around the 1940s, an American miner named Odon started a sawmill operation in the forest. The people believed that the operation was just in preparation for a bigger activity, which they believed was mining. The Agawa people back then did not want any mining operation in the area, and so they opposed the sawmill operation. The elderly women drove Odon and his team away by burning his house, and destroying tools and equipment. Another method of resistance employed by the elderly women saw them exposing their breasts while chasing Odon and his team with spears and *bolos* (a long, single-edge machete). Disrobing is not an uncommon sign of protest among Cordillera women, especially by the elderly. According to the women respondents, this form of protest is employed to shame those on the other side who are mostly men (in this case, Odon and his sawmill workers) with the belief that these men should not dishonor their mothers, wives, sisters and grandmothers. In fact, the women deserve full respect from their sons and grandsons, and must not go against their will. The respondents also said that the active involvement of the women in protesting against the sawmill operation also possibly avoided violence and bloodshed that could have ensued had the Agawa men been involved.

According to an official from the local government unit (LGU), this story of women protesting against the sawmill operation by employing the time-honored form of disrobing is embedded in the memory not of only of the Agawa adults, but also among many adults in the whole municipality.

Resin-Tapping in Agawa: Women Employ Guerilla Tactics

In the 1970s, the women noticed that clusters of pine trees in the forest were drying up. The firewood too that they gathered from the forest were very brittle and had lost the pine scent. They decided to investigate and found something

sinister was being done to the pine trees without the community's knowledge: they found plastic bags that were tied around the pine trees. The trees had incisions in the barks spiraling downward, allowing the sap to pass through to the plastic bags which collected them—whoever was doing it was harvesting the resin from the pine trees. Further investigation revealed who were doing the tapping: to their dismay, it involved some local people from Agawa as well as people from nearby villages. The collected resins were then sold at PhP50.00 per bag to a middle man from Manila.

Secretly the women formed a team who went into the forest in the dead of night to remove the plastic bags, which they buried away from the site where the resin-tapping operations were being done. Because the site was usually unmanned at night, the women continually did their clandestine operation until all resin-tapping activities stopped. They were never caught, and they never saw who the tappers were. What was important to them at that time was to stop the activity since they believed that it was destroying their forest.

Later, the Agawa people heard about the activities of Cellophil Resources Corporation (CRC), a logging concessionaire, in the nearby municipality of Tubo in Abra province. The CRC and its sister company, the Cellulose Processing Corporation (CPC), were awarded a Timber and Pulpwood License Agreement (TPLA) by then Philippine President Ferdinand Marcos. The TPLA covered some 99,565 hectares of pine forests in Abra and Kalinga-Apayao. In addition, Cellophil (both CRC and CPC) had quietly acquired almost 200,000 ha of mostly pine forests in Abra, Kalinga-Apayao, Mountain Province, Ilocos Norte, and Ilocos Sur. The project affected an estimated 145,000 inhabitants of the area (mostly indigenous peoples). The mill was to produce the basic material for cellophane to be exported to Japan and Europe. Both companies were owned by Henry Disini, a known Marcos crony (Verzola 2008). The Agawa people speculated that the resin-tapping activities in their forest must have been part of the CRC multi-million project.

Continuing Campaign Against Logging and Mining Operations

Aside from timber and other forest products, the mountain range where the Agawa village is situated is also rich in minerals, one of which is a most precious mineral, gold. This is the reason why the area has always been a target of mining companies for exploration and other mining activities.

The women respondents said that they continue to oppose the entry of big logging and mining activities in their community. They express their opposition by actively participating in community meetings, signing petitions against logging and mining operations. Some of them have joined protest rallies and other mass actions at the regional and national levels against destructive projects such as logging and mining.

Not surprisingly, the women respondents are aware of the continuing threat of mining in their community. They said they are watchful of the activities of the Malibato Mining Company, which started checking their area since June 2011. And while they lament the seeming indifference of the youth toward their traditional practices, our women respondents continue to believe that the future generation will not allow the destruction of their environment. Speaking in Ilocano, one elderly key informant had this say about the threat of mining to her community:

> *Haan mi ipalubos ti minas wenno uray ania nga proyekto ditoy Besao nga mangdadael ti daga ken pagpag. Nataengannak ngem ammok nga aniaman nga proyekto nga makadunor ti aglawlaw lalo ti pagpag ket supiaten ti uubing, lallalo dagiti babbae ti Agawa.*
>
> *We will never allow any mining operation or any project in Besao that will destroy our land and our forest. I am old but I am confident that any project that will destroy the environment and the forest will surely be opposed by the next generation, especially by the women of Agawa.*

Herstory

One of the key informants of this research was Endena Cogasi, a woman-leader who has once been tagged by the military as "Mother Cordillera" and "Commander." At a time when Agawa women were pursuing a guerilla-style operation against the resin-tapping activities in their forests, Philippine society was a social volcano waiting to explode under the dictatorial rule of former President Ferdinand Marcos. In the remote village of Agawa, Endena blossomed into a human rights activist during the Martial Law years, and her house in the village became a 'halfway place' for people with different political leanings. Both the Armed Forces of the Philippines (AFP) and the communist New Peoples' Army (NPA) benefitted from her hospitality. But those were dangerous times. Her hospitality was later misconstrued by the military and she was put under the watchful eyes of the soldiers by setting up a military checkpoint at the foot of the hill where her house was located. She was eventually detained by the military for suspicions of being an NPA commander, but released the following day, not by the good graces of the unit commander, but because of her endless chatter that continued until sunrise, scolding the soldiers, and irritating them to no end. Her detention gave her more resolve in actively campaigning for the pull out of the military troops from Besao during the worst years of military operations in the province (from the 1980s through to the 1990s). She joined rallies in front of military barracks in Bontoc, the capital of Mt. Province, denouncing human rights violations and demanding a stop to militarization.



On 9 December 2010, Endena was awarded *the Gawad Tanggol Karapatan* (or award for human rights defenders) by the Cordillera Human Rights Alliance in observance of the International Human Rights Day in recognition for her "intense passion and unwavering commitment" in protecting the land, life, and resources of the Igorot since the Martial Law period (Caguioa 2010).

The award was a fitting tribute to a woman who led the resistance against the resin-tapping activities in Agawa in the 1970s. This initial involvement in protecting the environment and the forests of her community eventually grew into an awareness that went beyond the confines of her village. She was then in her forties. Endena, now 86 years old, continues to fight for the rights of indigenous peoples.

Women at the Forefront of Forest Protection and Restoration

Recent events in Agawa saw community women continuing the tradition started by their women elders by actively participating and contributing in efforts to protect one of their important resources: the forest.

During forest fires, women do not sit idly by. On the contrary, they can be seen actively clearing areas and perimeters to help stop the spread of fire. This was again evident in 2009 when the village experienced widespread forest fires. While the men took charge of putting out the fire, the women were not far behind as they joined the various community fire brigades that were organized.

Recently, the community women were again called upon to help in a reforestation drive of the municipality, an idea proposed by the Vice Mayor. The men got seeds and seedlings of native trees and medicinal plants from the pine and mossy forests, and the women were the ones who planted them around the vicinity of the village. While this project had them cooperating with the local government unit, another project saw them at odds with the elected officials who supported a road construction project that would have passed through their rice paddies and necessitated the diversion of the flow of the river. The women said they were suspicious of the true intent of the project since the proposed road would lead directly to the foot of the pine forest. Again, the Agawa women voiced their opposition to this road construction project, which as of this writing, has not progressed.

Current Issues and Challenges

Like many indigenous peoples around the world, the i-Agawa is feeling the impact of climate change. This is one of the challenges the Agawa women are now facing. According to the women respondents, certain changes in the climate are having an effect on their productive life. They lamented the fact that it is now harder to "predict" the weather. Sometimes, certain periods have become longer; at other times, these have become shorter. As an example, they cited the experience of some of them in April when they planted corn expecting the rains to come. But the rains did not come, resulting to corn harvest that was not even enough to pay their debts. They used to plant corn during the Holy Week (either end March or early April), but not anymore because of the unpredictability of the weather. They also observed that in February, their vegetable crops started wilting from afternoon until the next day. February used to be one of the coldest months in the community. In their opinion, the seasons have been "disturbed" so much so that vegetable crops like pechay (Chinese cabbage) become dry even while still young, while rice produce has been steadily decreasing.

Both the women and men respondents talked about the emergence of new pests that were not there before. The most pernicious of these are the dangew, insects that suddenly appeared "three to four years ago," which destroy their plants including rice plants, sayote, lemon, even their pomelo (citrus). Japanese snails, or biruruko, which similarly eat their plants (roots of sweet potato and even rice plants) appeared only recently in Agawa.

Keang, a type of giant earthworms has been suspected as the cause of disappearance of a native variety of banana called pokopok (the earthworm was introduced in the area around 7 years ago by a CECAP[4] staff supposedly as possible source of protein). Agawa used to supply pokopok and other bananas to the whole province and even Baguio but the arrival of the earthworms coincided with the disappearance of this native variety. Several of the farmers, both men and women inter-

viewed, would point to the earthworms as the culprit. In addition, the giant earthworms have also invaded the rice paddies (causing erosions in certain instances) that farmers have to buy rolls of plastic which they make into a wall to prevent the earthworms from penetrating the paddies. Now, they need to set aside a budget to buy alcamphor (PhP1,000.00 per kilo) which they use to kill the keang.

Based on their observation, the introduction by the Department of Agriculture (DA) of exotic flora and fauna seems to have disturbed the natural habitat. They noted that shortly after the DA introduced dalayan, a new variety of banana, their problems with the productivity of their native bananas started. They also credit the DA for the introduction of the golden kuhol, siglat, and azola. Golden kuhol ate a native water insect called kustobey (small cockroach-like insects) which they used for linapet. The kustobey is now gone, and they have replaced kustobey with peanuts in cooking linapet. They also believe the golden kuhol was responsible for the extinction of agudong or birabir, a type of shell that used to be found in their rice ponds, and was highly delicious. Siglat is a kind of grass that they use as fertilizer, but this grows fast. They noted at the same time that another native grass, potitas, which was an effective fertilizer, has now been lost. Finally, they observe that the DA-introduced variety of azola which they also use as fertilizer competes with their native variety.

As women farmers, the impacts of climate change and the careless introduction of exotic flora and fauna in the community, ironically by some government agencies like the DA and foreign-funded development programs like CECAP, are a real cause for concern, especially since the their livelihood as well as food sustainability are at stake.

How the Agawa women have responded to the problems brought about by the introduction of exotic species in the community is insightful. In a real sense, there was acceptance to the fact that they may have permanently lost some of their native species because they themselves allowed the entry of the said exotic species to their village for promise of alternative sources of food and livelihood. Contrast this with their active resistance against projects deemed destructive to their forests

and the environment. Those that get pushed through without their knowledge and consent they actively resist and push out of the community (as exemplified by the sawmill and resin-tapping experiences). Those that are still being proposed but believed to be detrimental to the forests and the environment are met with strong opposition (for example, road construction, mining and logging).

Conclusion and Recommendations

This research showed that the role of Agawa women in forest management is closely tied to the triple roles of women, which are: reproductive work, productive work and community-managing and community politics.

As shown by the study, the forests in Agawa are a source of important provisions for the women that allows them to perform their various reproductive tasks (the forest is a source of firewood, food, medicinal plants, and household water, among others) and productive tasks (the forest is a source of livelihood for the women, a source of irrigation for their ricefields and vegetable gardens, as well as materials for handicraft). This important function of the forests to women explains why they continue to adhere to non-harmful traditional forest management practices that have evolved through time. The sustainability of the forest is of prime interest to the Agawa women and to the community.

The study also showed that owing to the distance of the pagpag or mossy forests from the community, it is the Agawa men who are able to regularly practice community-evolved forest management systems. However, the Agawa women are equally knowledgeable of many of these practices, which they continue to respect and adhere to. This distance barrier may also explain why the Agawa women are more actively involved, many times taking on leadership tasks, in activities that allow them to perform their role in community management and politics.

Since the health of the forest directly impacts on the performance of their reproductive and productive tasks, the Agawa women are at the forefront of reforestation and restoration projects in the community, and of opposition to destructive projects like the sawmill and resin-tapping activities in the past and the continuing threat of logging, mining, and even road construction. The study showed that once this important resource is endangered and threatened, the Agawa women would not think twice in actively engaging in political struggles to protect it. This active involvement is explained by their role in community management and politics, which they do freely and voluntarily.

Protecting the forests from potentially destructive activities and projects will ensure that the forests will be around long enough to allow future Agawa women perform their roles in the community, and with it, all the community-evolved knowledge on sustainable forest management that today's world could learn from.

Based on the findings of this study, future "development" programs and projects in Agawa have better chances of being accepted by the women if these would not in any way endanger the forests in the community (so that it will continue to be a source of important provisions they need in performing their reproductive and productive roles). This would require involving the Agawa women in the planning, implementation and evaluation of forest programs and projects.

Since the Agawa women are at the forefront of community management and politics, it is best to think of programs and projects that would help them strengthen their leadership and management skills.

Education and training for the Agawa women are important, and this may also cover current issues that they are facing, like climate change, the emergence of new pests, and biodiversity.

Since most of the women do not have the chance to "see" all their forests and their entire domain, it would be good to actively involve them in mapping their territory using current technology like Geo Information Systems. This is a powerful

tool that could help them better appreciate the extent of their territory and strengthen their campaign in protecting it.

Education on biodiversity is also particularly relevant especially with recent community experiences. It is important to make the community understand the possible dangers of allowing the uncritical entry into the community of exotic (or alien) species of plants and animals. The women (and the community in general), need to be vigilant in securing the integrity of their forests and the endemic flora and fauna that are found within. This is why the Agawa women's active involvement in the reforestation campaign that was spearheaded by the municipal vice mayor may be seen as a strategic effort towards recovering, restoring and revitalizing the community's mossy forests.

Another challenge facing them has to do with the transmission of their knowledge to the younger members of the village. Creative programs may be drawn up to help the community generate interest on IKSP among the younger members of the village. One objective in putting up such programs is to help ensure that the community's forest management systems remain vital through sustained practice and observance by future generations.

Finally, in line with the cautionary reminders of Jackson (1993) and Leach (1994), development programs and projects like those being planned under the REDD Plus initiative should ensure that Agawa women do not only participate because "they have no choice." On the contrary, the study has shown that the Agawa women have time and again shown their capacity to choose the kind of development programs that they would want to enter their communities—especially those that enhance, not endanger, their forests and their natural environment. At the same time, REDD Plus programs and projects should not only harness the knowledge and skills of Agawa women in protecting and sustaining the forests, but to guarantee that they have the material and economic resources to enable them to do so.

Endnotes

[1] College of Science, University of the Philippines Baguio.

[2] College of Social Sciences, University of the Philippines Baguio.

[3] This initiative is funded by the Norwegian Agency for Development Co-operation (Norad). In this project, Tebtebba has partnered with local organizations in eight countries, namely Nepal, Vietnam, Indonesia, Peru, Nicaragua, Kenya, Cameroon, and the Philippines.

[4] CECAP is a rural integrated development project with funding from the European Union and implemented by the Department of Agriculture. Launched in 1989, it covers the provinces of Abra, Kalinga, Ifugao, and Mt. Province. Its primary aim is to provide assistance in raising local incomes and living standards in the rural communities. The project has six components: agricultural development, natural resource management, marketing assistance, infrastructure development, rural financing and institutional development. The two-phased project ended in 2003 (Ciencia 2007).

Bibliography

Alangui, W. V. 1997. *Indigenous Learning Systems in a Kankana-ey Community (Mt. Province)*. Quezon City: Education Research Program, Center for Integrative and Development Studies, University of the Philippines and the Department of Education, Culture and Sports, Bureau of Non-Formal Education, Republic of the Philippines.

Alangui, W. V. 2010. *Stone Walls and Water Flows: Interrogating Cultural Practice and Mathematics*. Auckland: University of Auckland.

Besao Ancestral Domain Management Plan. 2003. Quezon City: Institute of Environmental Science for Social Change.

Brett, J. P. 1985. Stone Walls and Waterfalls: Irrigation and Ritual Regulation in the Central Cordillera, Northern Philippines. In K. Hutterer, T. Rambo and G. Lovelace, eds. *Cultural Values and Human Ecology in Southeast Asia*. Michigan: Center for South and Southeast Asian Studies, The University of Michigan.

Caguioa, M. 2010. *Tribute to Human Rights Defender: "Mother Cordillera."* Northern Dispatch, December 26.

Castro-Palaganas, E., A. Bagamaspad, M. Cardenas, J. Josef and L. Tolentino. 2001. *Mainstreaming Indigenous Health, Knowledge and Practices*. Diliman, Quezon City: University of the Philippines Center for Integrative and Development Studies.

CHIRAPAQ. 2011. Yanesha Women and their Roles in Forest Management. In W. V. Alangui, G. Subido and R. Tinda-an, eds. *Indigenous Women, Climate Change and Forests.* Baguio City: Tebtebba Foundation.

Ciencia, S. 2007. MDG Midterm Report: The Case of Ifugao. *Social Watch Philippines* pp. 77-84. www.socialwatch.org/sites/default/files/pdf/en/12_missingtargets.pdf. Retrieved 15 October 2012.

Cordillera Peoples' Alliance. 2011. *Cordillera's Forests and watersheds*. http://www.cpaphils.org/cordillera/forestresources.htm. Retrieved 15 October.

CSG. 2001a. *The Historical Background of Besao*. Baguio: Cordillera Schools Group. e-turo. 2012. http://e-turo.org/?q=node/1069. Retrieved 2 September.

Fenly, N. 2011. Forests and Indigenous Women in Tuapi: "Return to Auhbi Piakan." In W. V. Alangui, G. Subido and R. Tinda-an, eds. *Indigenous Women, Climate Change and Forests.* Baguio City: Tebtebba Foundation.

Fiar-od, C. B. 2000. *Gender Roles in Traditional Agricultural Societies: Case Studies*. Bontoc: Mountain Province State Polytechnic College.

Fiar-od, C. B. 2001. *Besao Traditional Knowledge on Spiritual Beliefs: Its Contributions to Sustainable Development*. Bontoc, Mt. Province: Mountain Province State Polytechnic College.

Jackson, C. 1993. Doing what comes naturally? Women and environment in development. *World Development* 21 (12): 1947-1963.

Leach, M. 1994. *Rainforest relations: Gender and resource use among the Mende of Gola, Sierra Leone*. Washington, DC: Smithsonian Institution Press.

Lelewal. 2011. Indigenous Women and Climate Change in South Cameroon. In W. V. Alangui, G. Subido and R. Tinda-an, eds. *Indigenous Women, Climate Change and Forests.* Baguio City: Tebtebba Foundation.

Moser, C. O.N. 1993. *Gender Planning and Development: Theory, practice and training.* London and New York: Routledge.

Riamit, S. 2011. Indigenous Women in Forest Management: The Maasai Women of Naimina Enkiyio Forest, Souther Kenya. In W. V. Alangui, G. Subido and R. Tinda-an, eds. *Indigenous Women, Climate Change and Forests.* Baguio City: Tebtebba Foundation.

Rovillos, R., W. Alangui, E. Ram, L. Tolentino, S. Dasig, and M. Sanchez. 2010. *Gender and Renewable Energy: Impacts and Challenges towards Mainstreaming*. Quezon City: Sibol ng Agham at Teknolohiya; and Baguio City: Kasarian, University of the Philippines Baguio.

Schroeder, R. A. 1999. *Shady Practices: Agroforestry and Gender Politics in The Gambia*. Berkeley: University of California Press.

Scott, W. H. 1958. Some Calendars of Northern Luzon. *American Anthropologist, 60*.

Scott, W. H. 1974. *The Discovery of the Igorots: Spanish Contacts with the Pagans of Northern Luzon*. Quezon City: New Day Publishers.

See, B. 2001. Indigenous Agroforestry Practices in the Cordillera. In M. Khor and L. Lin, eds. *Good Practices and Innovative Experiences in the South*. London: Zed Books.

Sherpa, L. 2004. *A Report on the Indigenous Peoples, Gender and Natural Resource Management*. KULU-Women and Development Denmark.

Sherpa, T. 2011. Indigenous Women in Khasur and Kalleri Villages of Nepal: Traditional Knowledge and Adaptation Strategies in the Face of Climate Change. In W. V. Alangui, G. Subido and R. Tinda-an, eds. *Indigenous Women, Climate Change and Forests*. Baguio City: Tebtebba Foundation.

Tauli-Corpuz, V. 2001. Interface between Traditional Religion and Ecology among the Igorots. In J. Grim, ed. *Indigenous Traditions and Ecology: The Interbeing of Cosmology and Community*. Cambridge: Center for the Study of World Religions Harvard Divinity School.

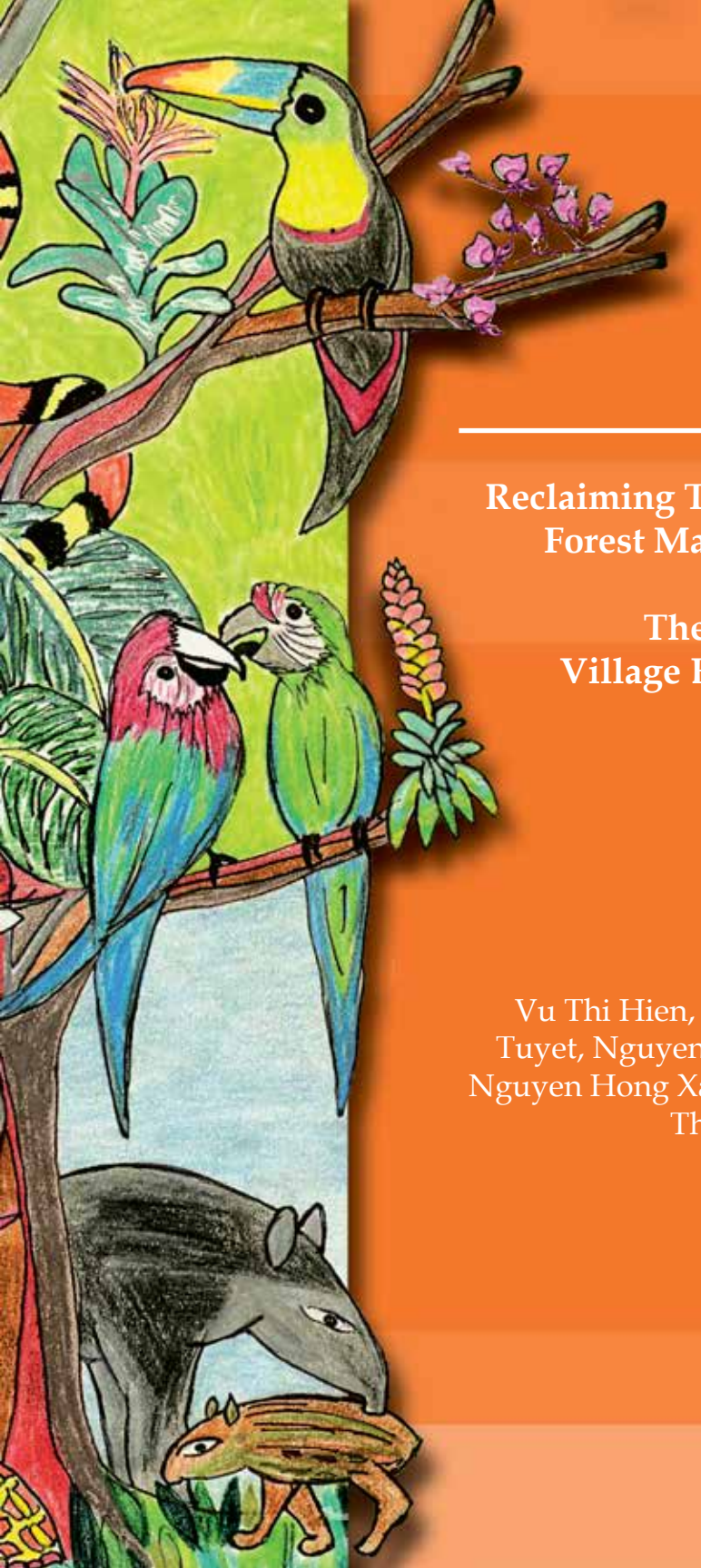
Tauli-Corpuz, V. 2011. In W. V. Alangui, G. Subido & R. Tinda-an, eds. *Indigenous Women, Climate Change and Forests*. Baguio City: Tebtebba Foundation.

Velasquez, J. 2011. Indigenous Women and Territoriality Challenges to Equality in the Governance of the Indigenous Communities of Tasba Raya. In W. V. Alangui, G. Subido and R. Tinda-an, eds. *Indigenous Women, Climate Change and Forests*. Baguio: Tebtebba Foundation.

Verzola, P. Jr. 2008. *Struggle vs. Cellophil in Abra: A shining record of indigenous people's resistance*. Northern Dispatch, April 20.

Yin, R. 1989. *Case study research: design and methods*. Newbury Park, California: Sage.

Yin, R. 2003. *Case study research: design and methods*. Thousand Oaks, California: Sage.



6

Reclaiming Traditional Forest Management Practices: The Binh Son Village Experience

By
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Introduction

This case study of Binh Sonh Village in Vietnam aims to prove that the consolidation and maintenance of knowledge, customary laws and traditional practices of indigenous peoples living in and near the forests will help ensure the success of REDD Plus.[2] This supports efforts to help mitigate the negative impacts of climate change and sustains and enhances the sustainable livelihoods of the indigenous communities. Indigenous peoples can thus affirm that they are the best managers and protectors of their forests and are, at the same time, active actors in combatting climate change.

Methodology

The case study was conducted in Binh Son Village, Cuc Duong Commune, Vo Nhai District, Thai Nguyen Province. The information for the case study was collected from available documents and field research trips, along with actual observations. The Focus Group Discussions were undertaken with commune and village officers, and male and female famers while Key Informant Interviews were done among village heads, the village party secretary, the chairwoman of the Women's Union, elders (men and women), poor, middle and better-off households, and the youth. A total number of 52 local people provided needed information, including men, women (17), youth (8), elderly (5), government officials,[3] and mass organizations.[4]

Binh Son Village

Binh Son is a mountainous village in northern Vietnam, composed of mountains, wet rice fields and hill. People of the village live entirely inside the valley. It is composed of 83 households with a population of 425, 51.2 percent of whom are women. People living here are mainly Tay people, accounting for 92 percent of the population, while the remaining population are Dzao and Hmong peoples. Wet rice, corn and husbandry are the main sources of their food. The mountains surrounding Binh Son are rocky. Binh Son Village falls within the natural forest with an area of 220 hectares. The forest, standing out with its green color, has been protected by Binh Son for years. This forest had been previously destroyed but is being gradually revived through the efforts of the people. Through these efforts, the local authorities have supported community initiatives to protect the forest by approving the village customary regulation on forest protection.

Indigenous People' Views of Forests and Experiences on Forest Degradation and Deforestation

In the 1950s, state farms, under the management of the government agencies, were established in Binh Son. State farms worked within a highly centralized and heavily subsidized system. They were allocated forest area to manage forestry-related activities, mainly logging. At that time, logging of timber in the natural forest was considered as a source of state income, so state farms harvested timber annually based on government targets. Apart from the timber logging by state farms, illegal logging also occurred from the 70s to the late 90s.

Research shows that for the villagers, the forest is a part of their lives that has been ingrained in their subconscious. The images of the forest in the past were retraced in discussions with the research team. Long ago, the people here had a strong attachment with the forest. All the villagers who joined

in the research said that when they were born, their mothers or grandmothers would bathe them with leaves taken from the forest. The local people, the Tay group, grew up with lulling stories about the forests, the trees and the animals, told or sang by their grandmothers or parents before they slept.

The lovely lullaby goes like this:

> *Baby, please, sleep well, mom is going to the hill to pick up cucumber and banana; to the spring to catch the fish; and to the field to pick up the corn… the shrike with the red beak and the hawk with the striped long neck… la la la… baby, please, sleep well… la la la…*

The lullabies or poetries handed down to the people were about and from the forest. Indeed, the forest has long been their life, so close that it seems to have no boundaries, making the people never to want to leave their village or be away from the forest.

Since childhood, the people bonded with the forest through their routine activities such as climbing trees or slopes; playing hide-and-seek; collecting firewood; finding stray buffaloes; picking vegetables and taking medical plants like common sagebrush, hot pepper, mistletoe, dandelion for both treatment and health improvement; and as source of water. As source of traditional medicine, the use of the plants depends on each disease. These can be eaten raw or boiled in water for drinking.

The forest is also where young boys and girls go out on dates, where wood is used to make coffin, and where they are ultimately buried.

The grandmother Ma Thi Dien sums this up when she said:

> *When the child is born, he is bathed with forest leaves, for example, leaves of thistle, of bitter melon, of centelle, of colocynth… When he dies, wood is used to make his coffin. He is buried in forest land.*

Below are some plants that have healing properties:

Sam cau	tonic for anaemic people and a good cure for epilepsy
Khau cop	a good cure for renal calculus
Achyranthes aspera	a good cure for hepatitis
Gold lame	a good cure for tachycardia, cardiotonic

Every inch of soil in the forest, therefore, harbor memories and imprints of their footsteps. The people remember every tree or rock top. Their faith and spiritual life are derived from the forest. In their mind, the sacred forest is the place where the genie comes and protects the community.

Story tells that a long time ago, the Black flag rebels[5] came to attack the village. All the villagers moved to the mountain named "Tac Nong" to fight the rebels. Only using the simple weapons—collected in the forest or handmade ones like arrow or torch—and hiding in the forest, the villagers defeated the rebels. Since that time, the villagers believe that the forest and the satyr protect them from the devil.

The forest is like the mother who rears them, takes care of them, and provides medicinal plants and food for the people and their livestock. The forest keeps and regulates water for their daily lives and provides irrigation for the farm.

People named the forest based on its functions and characteristics, names which are still being used to this day. In Tay language, forest is called Khau, and jungle is called Khao Ke. Each of the forest is named like the streets in the city and is often associated with a specific feature. For example, Khau Kha is the forest with Alang grass that is used to make the roof of the house; Khuoi Ca is the stream where the crows come to bathe; while Xa Lau is a forest full of vines.[6]

Other areas such as Phuong Hoang[7] is a murky forest and believed to be sacred; Ro Khon is defined as regenerative forest that should be protected; Ro Linh, including Xa Lau and Linh Deng, is an upstream forest providing water for the whole village; Khua Kho, including Phuong Hoang and Mo Neo,[8] is an upstream forest that should be strictly protected from forest exploitation and agriculture development.



The forest in Binh Son used to be full of not only fascinating mythologies but also the diversified ecosystem, alternating with typical limestone mountain forests and land mountain forests. Looking at the diagram on next page, the village is surrounded by two limestone mountains like two walls on which many species of precious plants like Nghien[9] and Trai Ly[10] are available.

Elders said that 40 years ago, the village was surrounded by a thousand-year-old forest of Nghien and Trai Ly trees, many of them too big for seven or eight people to hug. These grew highly and vertically on the mountain. Their wood was so hard that these could not be cut by knife, axe or hand saw.

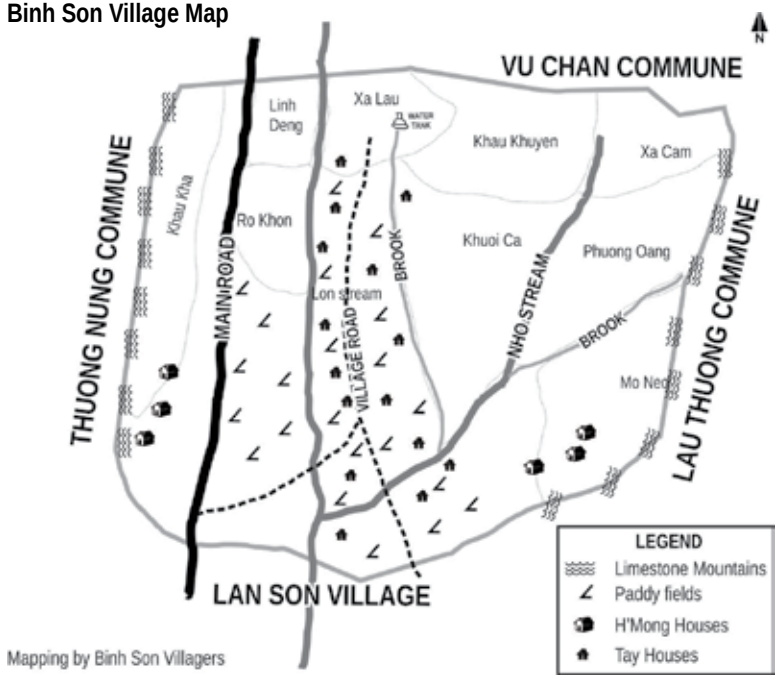
Beside the limestone mountain forest ecosystem, there is also the land mountain forest ecosystem. Precious wood like Dinh, Lim, Sen, Tau, Lat, and Gu[11] grew in the valley; and together with hundreds of other large and small trees, they comprise a complex of multiple species of trees and canopies that create the spectacular scenery of the small Binh Son hamlet. Many elderly people in the village recalled the memories of the past, particularly for grandfather Ma Van Tinh, an 84-year-old elder, who contributed a lot to protect the forest and is highly respected by the villagers.

"Before, this place was covered with forests. Many big ironwood trees grew near the farms; and when dawn came, monkeys and bears would come to steal corns in the farms," he reminisced. Grandmother Ma Thi Dien, another elderly, said,

The forest used to be very dim and dense. There were many old trees that could not be hugged by seven to eight persons. Their roots were surrounded by moss. Even at the front of the hamlet, there were also some big Caladium trees. The Caladium trees provide very high quality wood for furniture; and during summer time, the people would gather the fruits of this tree and use these as foodstuff.

Through those stories, we can see how rich and diverse the Binh Son forest was. All of those memories are still deeply embedded in their minds, so without any difficulty, the people are able to make a listing of big trees that grew in both land and limestone mountains, and the wild animals that had been living in Binh Son forest. The local people are also very much aware of the value of each kind of trees in terms of biological properties, as well as the quality of timber. They regret that some trees and animals have disappeared, while a few have been recently regenerated.

Binh Son Village Map



Timber species available in non-rock mountain (based on information from the local people).

No	Name of species	Still available in 2011			Quality of wood
		Many	Average	Few	
1	Vatica tonkinensis			✓	Hardwood
2	*Peltophorum tonkinensis*			✓	Mediumwood
3	Erythrophleum fordii			✓	Hardwood
4	Machilus bonii		✓		Softwood
5	Fassia pasquieri			✓	Hardwood
6	Parashorea chinensis		✓		Softwood
7	Parashrea stellata			✓	Softwood
8	Pygeum arboreum	✓			Low quality wood
9	Gironniera subaequalis	✓			Low quality wood
10	Chukrasia sp.			✓	Hardwood
11	Chukrasia tabularis		✓		Hardwood
12	Perfume wood			✓	Hardwood
13	Hexaneurocarpon brilletii			✓	Hardwood
14	Talauma			✓	Softwood
15	Aphanamixis polystachya		✓		Softwood
16	Bischofia trifolia	✓			Medicinal plant
17	Canarium nigrum Engl			✓	Softwood, fruit, resin
18	Canarium albrun Racusch			✓	Softwood, fruit, resin
19	“Vang”		✓		Low quality wood
20	Manglietia glauca	✓			Low quality wood
21	Endospermum sinensis		✓		Low quality wood
22	Cratoxylon formosum	✓			Firewood
23	Styrax tonkinensis	✓			Low quality wood, Pulpwood
24	Aleurites montara	✓			Low quality wood, fruit
25	Cowhde tree			✓	Low quality wood

26	Ficus bengalensis	✓			Low quality wood, ornamental plant
27	Ficus stricta	✓			Low quality wood, ornamental plant
28	Ficus racemosa	✓			Low quality wood, ornamental plant
29	Adina polycephala	✓			Low quality wood
30	*Sapindus oocarpus*		✓		Softwood
31	Peltophorum pterocarpum			✓	Hardwood
32	Dracontomelum mangiferum		✓		Hardwood, firewood

Timber species available in the rocky mountain (information provided by the local people).

No	Name of species	Density in 2011			Note
		Many	Average	Few	
1	*Parapentace tonkinensis*			✓	Hardwood
2	*Garcimia fagraceides*			✓	Hardwood
3	Madhuca sp.			✓	Hardwood
4	“May sam”	✓			Low quality wood
5	“May Bong”		✓		Low quality wood
6	Cinamomum sp.	✓			Low quality wood
7	“Tra”			✓	Mediumwood
8	“Da den”		✓		Mediumwood
9	Hexaneurocarpon brilletii			✓	Hardwood
10	Chukrasia tabularis			✓	Hardwood
11	*Aglaia gigantea*	✓			Low quality wood
12	“Dinh bop”		✓		Low quality wood
13	Parashorea chinensis		✓		Low quality wood
14	“Cho cong”			✓	Softwood
15	“Thanh huong”			✓	Softwood

Extinct Animals and Animals existing in Binh Son forest (information provided by the local people)

No	Kinds of animal available in the past	Extinct animals and animals existing with current density	
1	Panthera tigris	Extinct	
2	Pantherinae		Very rare
3	Felis silvestris		A good few
4	Ursus thibetanus	Extinct	
5	Sus scrofa		Very rare
6	Naemorhedus sumatraensis		Very rare
7	Cercopithecidae		Rare
8	Hylobatidae	Extinct	
9	Pongo	Extinct	
10	Civet cat	Extinct	
11	Paguma larvata		Very rare
12	Sciuridae		A good few
13	Rhizomys pruinosus		A good few
14	Lophura nycthemera annamensis	Extinct	
15	Gallus gallus		A good few
16	Viverricula indica		Very rare

Note: Very rare: one mark; Rare: from 1 to 5 marks; A good few: from 10 to 15 marks.

Based on the observations made by the local people, the table shows that the rate of the extinct animals is high at 37.5 percent.

Relationship Between Forest and Livelihood and Customary Regulations

The forest provides water. The water source in Xa Lau forest can provide sufficient water for the whole village. With the natural height, the villagers can easily get water by using bamboo trays, and no cumbersome or expensive pump system

and filters are needed. Outsiders coming to this village can feel the endless happiness of the people here because of the pure water. Only people living here can enjoy the generosity of the forest. The small spring coming from Khua Nho jungle provides water for the 2-season farms of 83 village households and about 100 households in the nearby Lam Son hamlet.

The forest provides a diversified source of food for people and livestock. On a daily basis, the children in the village, together with their parents, go to the forest, picking up fruit and vegetables such as Ron, Centella, dandelion, Pennywort, black mushrooms, young bamboo; or catching fish or snails. The villagers also collect food such as leaves, grass or banana trees for cattle, pigs and chickens.

The forest is not only their food source but also the source of their culinary culture. They maintain the upland rice and indigenous corn with special sticky taste. Tay people have a special process in creating many specialties from upland rice, such as the "Five Color Sticky rice" with five different colors done by mixing rice with some special leaves (that produce red and black colors) and ginger leaves; and the Gio[12] and Gai[13] cakes that are made from upland rice with the ash from Fuchsia tree and Pinnate leaves. Besides making cake, the villagers also use 15 kinds of leaves and lianas to make a special kind of alcohol yeast. The steamed sticky rice is fermented by that special kind of alcohol yeast and water taken from Xa Lau forest in the coldest day of the year to make a special kind of wine called Dong Chi wine. This wine is a soft and light drink used during family celebrations and served to special guests.

The forest also provides forest products besides wood—the villagers use bamboo, rattan to make furniture such as basket, baby cradle and poultry coop, among others. These products are also sold in the market to increase their income.

The forest is also the source of medicinal plants and is an invaluable herbal remedy source. These include many precious medicinal plants that the people here discovered through historical experience and knowledge handed down from generation to generation.

Mugwort leaves, wild chili, mistletoe and Ron leaf are used to treat normal illnesses such as flu and headache; other diseases like sterility, rheumatism, stomachache, intestinal diseases; and injuries such as sprain. The villagers are also able to produce remedies processed from forest products to foster strength, such as Thien nien kien,[14] honey, Sai dat,[15] quach, fungus, and mellifluous knotweed. The secret of making remedies and a healthy drink from Voi[16] and Vang leaves has been passed down from generation to generation.

For making remedies, they select a person whom they trust and believe would be able to learn the technique well, then proceed to teach him/her on a daily basis. For the drinking water, the way of producing this is open to everyone. They said that this type of drinking water makes the liver healthy, helps fortify the kidneys, stimulates appetite, ensures good sleep, and reduces backache. To source the medicinal plants, the villagers only need to walk in the forest for one hour to be able to locate these.

The forest also provides timber for housing. The people live in stilt houses with an average area of 150 square meters. These are 2-story houses with the flooring made of timber or bamboo while the roof is made of palm leaves or blady grasses. Wood is traditionally used for making stilt houses. The stilt house is a specific design that protects the family from dangerous animals, has good ventilation and wide spaces, and is able to last several generations. Members of the family live together in harmony under this roof through generations.

In the past, the forest was rich and abundant due to strict community rules on forest utilization, collection, hunting, and logging of timber for housing. For example, regulations and a season calendar was set up to harmonize the usage of the forest products. Harvesting of wood and forest products is monitored and done only during specific months to ensure regeneration of the forest, e.g., picking of bamboo shoots in January and February, mushrooms in February and March, and honey in May and June.

Lunar Calendar for the forest product collection

Forest Activities	Time (Lunar Calendar)
Wood collecting	Throughout the year
Gathering rattan to build garden	From September to December (when worms are not present)
Collecting banana trees and other forest vegetables for pig raising	Throughout the year
Collecting bamboo shoot "Vau" bamboo shoot "Nua" bamboo shoot	January-February April-August
Cultivation in sloping land Land preparation Planting, seed sowing Harvesting	November & December (previous year) January-February (next year) May-June (next year)
Collecting Heo, Song, May (rattan), medicinal plants	Whole year
Cattle pasturing	Whole year
Chopping wood to build house	July-December
Collecting mushrooms	February-March (when the weather favors mushroom development)
Collecting honey	May-June (trees are in blossom)

Through time, however, customary laws on forest protection were forgotten. Due to over harvesting by state farms established in the 50s, deforestation occurred. Forest resources were seriously degraded, both in quantity and quality. Specifically, the forest was replanted with regenerated timber trees with low value.[17] The local people also recognized that apart from loss of biodiversity and declining forest volume, forest layers had been damaged. For example, several wild animals have disappeared (gibbons, pongo, musk cat, masked palm civet) and so have big trees, resulting in rapid changes in the forest's capacity for water control and ecological balance.

This situation has, in turn, affected the habitat. Mr. Ma Van Tinh,[18] an elder, observed,

In the past, Nho stream was full of water in all seasons. Villagers could use water freely for daily life and cultivation. In 1998-1999, water in the stream was much more shallow—only half in comparison to before.

Mr. Duong Ngoc Thuc,[19] another elder, said, "In the dry season of 1998-1999, there was a time when the Nho stream dried-out. People can walk through the stream without getting their feet wet."

Village's Response to Forest Degradation and Sustaining Livelihoods

More than 10 years ago, the people of Binh Son Village experienced unfavorable environmental impacts due to deforestation. Facing forest and spring water exhaustion due to serious forest degradation, the Binh Son villagers were very worried that they would not have enough water for planting rice, husbandry and other daily activities. If this situation was prolonged, many households would have had to leave their village.

As a result, in 2000, inspite of not having official approval to manage and use the water, the hamlet leader and the people decided to demarcate a forest area of about 220 ha based on the village boundary and steam. They strongly believed that protecting the forest meant protecting the water resources, protecting their life and those of their future generations.

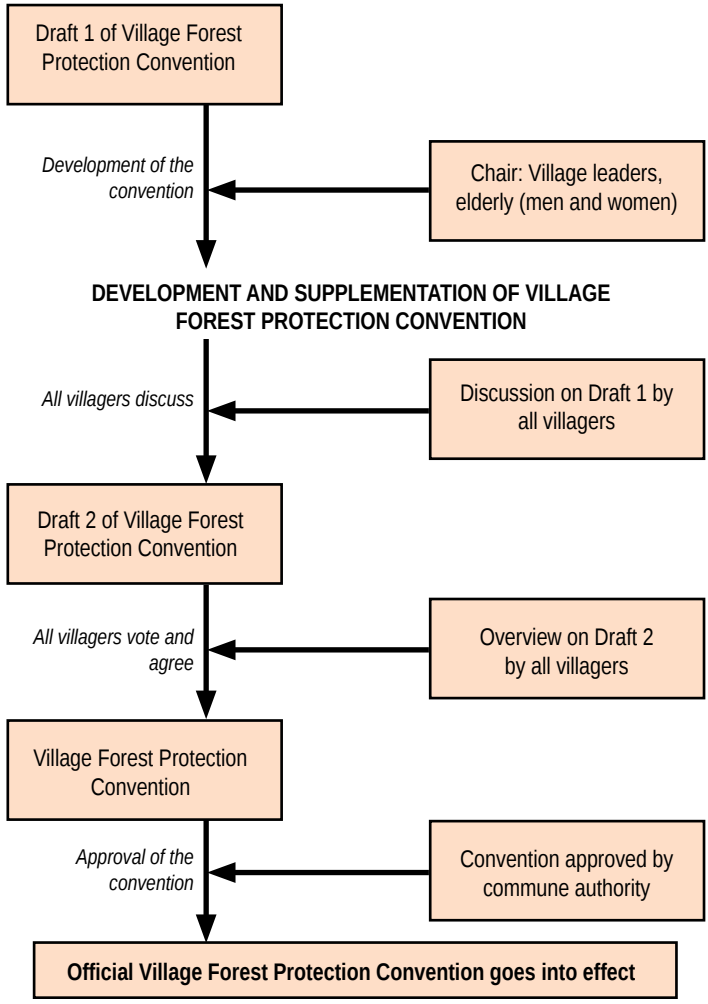
In order to start protecting the forest, the customary regulation was revived and applied again through initiatives made by the village leaders, especially the elderly and women. The customary regulation was crafted with the full participation of the whole villagers and was supplemented to adapt to the new situation. The customary regulation, in the form of a Village Forest Protection Convention, was issued in 2001 and was amended once in 2009.

This area has since then been well-protected by the community under their customary laws. Based on state laws, they

have the right to keep using the forest until the forest will have been finally allocated to the community through a land certificate.

The development of the Village Forest Protection Convention was accomplished through several steps as shown in the diagram.

***Step 1**: Proposal development and drafting of the Village Forest Protection Convention.*



From the existing problems in the village, e.g., lack of water for agricultural production and daily life, issues on deforestation and forest degradation, forest protection plans were initiated and brought up for discussion. A first meeting was held with the participation of village leaders and the elders, both men and women. The meeting agreed to have a village convention to protect the forest, water, and forest resources. A draft was completed after 30 days from the first meeting.

***Step 2**: Internal discussion among villagers to comment on the draft of the Village Forest Protection Convention.*

The idea of drafting a convention was prompted by the fact that this was an urgent need for them. Village meetings were held several times to optimize the content of the village convention. The people in the community identified various effective measures, as well as the types of punishment, to protect the forest. During the setting up of the draft convention, all the households contributed their ideas and commented on the draft. The process was informative, with the whole village actively involved as the initiative came from them. The role of the women was important as they work closely in the forest and understand how important the forest is for the people's life and health. The village confirmed that women have significantly contributed to the development of the convention's contents based on their understanding of forests. On September 25, 2009, the convention was adopted with a consensus of all households in the village. This process was completed after two months.

***Step 3**: The villagers, both men and women, voted and adopted the Village Forest Protection Convention.*

***Step 4**: Local authorities approved the convention, which then became effective.*

The Village Forest Protection Convention was a combination of the Law on Forest Protection and Development and customary regulation. Customary regulation was used to translate the articles of the said law into articles of the convention.

The completed convention was then approved by the Commune and District People's Committee.[20]

In terms of structure, a Village Management Board was created and its membership selected by the community. The convention specified the powers and responsibilities of the management board in the propagation, mobilization and implementation of fines. It also specified the responsibilities of each citizen in relation to the convention's implementation and supervision.

The Convention and its Implementation

The village convention includes four chapters and 31 articles in which forest protection ranked highest. Some of the main contents relating to forest resources protection are as follows:

- Articles 22 and 23, Chapter 2 stated that all people have the obligation to protect the village forest;
- Article 7 defined that the distance from the edge of the ricefield to the forest border must be at least 20 m;
- Article 7 defined wood exploitation for house building: type of wood, age of tree, and the amount of timber to be taken;
- Article 6 defined the forest areas for various purposes: watershed, sacred groves; and accompanying regulations.



Discussing the process of setting up the forest village convention, its implementation and impacts on forest and livelihoods.



Collecting the bastard cardamon for treatment of digestive disorder.

The convention was revised to expand the area of mature forest and set up stricter regulations to maintain water and trees in response to the increase in both households (to 83 households) and timber logging across borders. Meetings were organized to discuss the regulations, together with the Village Management Board. In 2009, the convention was supplemented to be more coherent and adequate. The convention was approved by all the 83 households in the village, which was then recognized by the Commune People Committee, coming to effect on 26 November 2009.

During the period when the forest was still being damaged,[21] if someone discovered any breach, the detector informs the village board. The village board then investigates the information and when confirmed, organizes a meeting with the culprit and the detector, then crafts a draft of the punishment. Another village meeting is organized to hand down the final decision on the punishment, according to the village convention.

Compared to the old convention, the amended convention added several new points. The convention now included seven chapters and 32 articles. Chapters related to community forest management were inserted after the general rules. Some provisions supplemented were:

- Article 6: All people have the responsibility to protect the forest, and forest exploitation for cultivation and timber cutting is strictly forbidden;
- Article 7: Defines the protection of water and biodiversity in the watershed and mature forests;
- Article 8: Defines the plantation of mixed forest to create economic value and protect the soil and water. The distance from the ricefield border to forest border is 30 m (before, this was 20 m);



Leader of Binh Son Village.

- Article 9: Defines the width of cropland in the border area between cropland and forest. It must be over 3 m to prevent forest fire;
- Item D under Article 7 defines that the conversion of the small forest area in the permitted area for cultivation for foodstuff like maize, etc., must protect trees that have a diameter larger than 10 cm.

Terms on watershed protection and water use:

- Entering the Ro Khon area—the forest that protects the village water source—is prohibited.
- Water usage level: 1.5 m^3/person/month. If water is used beyond the limit, the villager has to pay for the overuse.
- Article 29: Do not graze near water supply or throw garbage into the stream; bury dead cattle/poultry far away from the water source.

The sanction provisions

- Fine in the amount of 10,000 VND (US$0.5)-25,000 VND ($1.25): applied to minor violations such as not attending village meetings, not following environmental sanitation rules.
- Fine in the amount of 50,000 VND ($2.5), 100,000 VND ($5), 200,000 VND ($10): for not following land clearing rules.

Compensation levels depending on the damage and types of damage

No	Name of damaged species	Unit	Compensation level	
			Unit	Quantity
1	Rice	1 m^2	kg of rice	1
2	Maize	Plant	tree/maize	1
3	Peanut	1 m^2	cup of seed	1
4	Cassava	Stump	kg/stump	2
5	Bean	1 m^2	cup of seed	1
6	Banana without bunch	Plant	VND/tree	15,000
7	Banana with bunch	Plant	VND/tree	30,000
8	Sugarcane	Plant	VND/tree	3,000

9	Rattan	Plant	VND/tree	20,000
10	Bamboo	Plant	VND/tree	10,000
11	Plantation tree	Seedling	VND/tree	10,000
12	Plantation tree	diameter >10cm	VND/tree	30,000

- Besides pecuniary penalty and compensation, the objects collected illegally by violators shall be confiscated and returned to the owners.
- With regard to the land clearing for cultivation, the violator must pay the fine, restore shifting soil, and replant trees.
- Special customary regulation is given to the violator who infringes upon the village convention and damages the forest several times. The violator will be excluded from the special association formed by people themselves—the funeral association—which supports a family's funeral expenses. As an important tradition of the village, all households are automatically members of this association. When someone dies, all members contribute (according to the norm), help and attend the funeral. A violator who is excluded from this association means detachment from the community: their families will not get the support of the villagers and may not even get support for burial services. The application of this village customary law has proven to be very effective.

Since the village convention was drafted and agreed by villagers themselves, the people are very much aware of its content and application. The children know about this as well; and this has become part of the people's day-to-day monitoring and management of their forest. All the villagers work together to monitor the implementation of the village convention, so any damage to the forest is discovered very quickly.

According to the convention's action plan, each villager takes responsibility to monitor the detailed instructions. For example, once they find that someone has infringed upon the regulation, she/he records the incident and informs the member of village board in short notice. Immediately, a

member of village board goes to check and makes the report. One village meeting is organized as soon as possible to discuss and make decision on the penalty.

Women, too, play a very active and crucial role in this monitoring system. They are the first to identify the damage, and report to the Village Management Board.

With such an effective system, the number of penalties is very rare or nil. Furthermore, the trust and confidence among villagers in the convention is established. In addition, with a participatory monitoring system that works very well, the convention is genuinely implemented, reflecting systematic and effective ways of indigenous peoples to account for their resources.

Ten years after the implementation of the Village Forest Protection Convention, the forest in Binh Son is once again being revived and regenerated. There are now three native trees[22] within reach of a hug. With the convention's strict implementation, illegal logging by outsiders has been prevented. Water from the forest has come back to the village. Villagers no longer worry about the lack of water for their use, while water supply for production has also greatly improved. The forest flowers, birds and colorful butterflies gradually became livelier and more beautiful, bringing joy to villagers.

A village official said,

> *I love the natural forest very much. I want to keep the natural forest. I will not replace the natural forest with Acacia trees, as someone once asked. I feel so happy when walking in forest...*

In another occasion, a young official of Binh Son Village boldly disapproved the plan of clearing the natural forest for plantation of 3 ha of acacia by the commune. He said,

> *Even though I am not properly trained, but with knowledge from my father and through stories told by the elders, I know that only the natural forest can provide favorable conditions for agriculture development, food security and public health.*

The villagers have come to once again realize the special role of forest on their lives and livelihoods and have shared ideas on how to minimize the negative environmental impacts due to deforestation. Through their traditional knowledge, the forest in their homeland has been revived. In the process, they gradually rid themselves of threats such as drought and soil erosion that have affected their livelihoods. And the joy that the community has experienced before deforestation is coming back as they now experience a verdant forest.

Role of Local Governance System on Forest Protection

With their intrinsic relationship with the forest, and having witnessed the role of forest in mitigating the negative impacts of climate change, the villagers have equipped themselves well in order to participate in REDD Plus through their customary community institution and regulations. Capacity building for REDD Plus will support their efforts to achieve long-term forest-use rights and related legislation and policies, higher forest governance system, and will help them access techniques and finance for REDD Plus implementation.

In implementing REDD Plus, the potential for carbon sequestration of Binh Son's forest is high. The community has shown that the forest can still recover from decades of degradation and abuse; and they have already started to rehabilitate their forest by implementing their governance system. With these efforts, forest biodiversity is now being restored and developed, and the ability of forest carbon growth is promising. Binh Son's climate is tropical monsoon and is located in a valley with the height of 100-300 m, helping ensure that the forest can grow strongly throughout the year.

Binh Son Village is clear evidence that traditional institution and regulations based on customary laws are the most effective in protecting and sustaining the forest. The government has also set up pilot projects on community forest management and restoration of sacred forests with the aim of restoring biodiversity. These projects, however, do not spe-

cifically mention customary law and traditional knowledge of indigenous communities. The fact is, however, that a number of communities still keep and operate their customary governance as shown in Binh Son Village. Now, government officials have started to recognize the role of customary governance and traditional knowledge in forest protection and management, even mentioning this in some official documents.

Currently, no formal policy to strengthen and promote forest protection and forest management through traditional knowledge and customary laws exists. Nonetheless, Binh Son villagers are committed to pursue and maintain their forest management system, integrating state law with customary law. Through their customary institution and regulations, they believe that they can completely prevent deforestation and keep the green forest forever.

The recognition of ethnic minority women's role in community forest management in Binh Son by all villagers and local authorities is very important. Women are the most closely attached to forests, spending most of their time in the forest. With infinite love for the forest, they transfer knowledge to the future generations. They play an active role in formulating, implementing and monitoring regulations on forest protection. However, the role of women in community forest management has not been discussed in detail nor acknowledged in legislation.

Conclusion

In Binh Son, the villagers have established a system of customary institution and regulations related to forest protection with clear tasks, a monitoring system with detailed regulations, participation of all villagers, and which complies with state law and customary laws. Practice has shown the efficiency and effectiveness of this system. Sanction regulations were determined and implemented strictly. The role of women is highly appreciated by all villagers; they are the most quick ones to discover violations to prevent and the most active people who

deter people from breaching of regulation. With such institution, it can provide a good condition for implementing REDD Plus, especially applying FPIC[23] and MRV.[24]

The study team would like to reemphasize that Binh Son villagers are aware of the impacts of climate change. Climate change has impacted their lives and livelihoods, especially drought and crop failure and forest degradation. In this context, they realized that if the forest continues to be destroyed, the water would disappear, leaving the villagers with no choice but to move to another place.

Currently, in existing laws, a community is not the legal entity which can be allocated forest land. As a result, the right of communities in forest land use management is not fully recognized yet. The customary system is effective but had almost disappeared as many communities stopped using their customary practices and traditional knowledge. Initiatives are therefore needed to recover these, especially in regards to a government policy that officially recognizes and supports customary system of forest management.

Research results indicate that:

1. Forest protection is difficult but will be successful if community linkage based on natural linkage on geography and social tradition is encouraged;
2. Traditional knowledge in forest management is effective in maintaining a sustainable forest ecosystem;
3. Forest management by using traditional knowledge and customary law is effective but has not been officially recognized. There is danger that these may disappear in the future unless these are recognized and supported by appropriate policies;
4. If the forest management system using traditional knowledge and customary law is recovered and applied to REDD Plus, REDD Plus implementation will be successful;
5. Indigenous women play an important role in forest management, but this needs to be officially recognized.

Recommendations

To increase efficiency in forest resource management, provide better life for the people, and prepare for the implementation of REDD Plus, the study team recommends the following:

1. Recognize the legality of the community's right to use land and forest;
2. Strengthen and recognize legally the traditional knowledge and practices in forest resources management and use;
3. Recognize the forest management system based on customary law in order to establish enabling conditions for REDD Plus implementation. Besides the state legal system, the customary law system needs to be recognized and supported;
4. Recognize the integration of the state legal system and customary law to ensure the basis for communities to use their customary laws;
5. Promote community linkage based on natural linkage on geography and social tradition for better forest resource management and for REDD Plus implementation;
6. Build capacities of the community to secure its legal entity to enable the community to participate in REDD Plus negotiations and implementation and work as an independent entity;
7. Create eligible conditions for people, including women, to participate in the process of policy making through their traditional institution and enable them to access policies related to sustainable management of forest resources and forest land.

Endnotes

[1] The case study was conducted in 2011 by the research team composed of Vu Thi Hien, Director of CERDA, and researchers Nguyen Thi Tuyet, Nguyen Xuan Giap, Nguyen Hong Xa, and Pham Thanh Cuong.

[2] Reducing Emissions from Deforestation and Forest Degradation the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

[3] Government officers include the people from Commune People Council and the Commune People Committee.

[4] Mass organizations include the Youth Union, Farmer's Union and Women's Union.

[5] Black flag rebels were invaders who came from China.

[6] Some vines are very good cures for some diseases, e.g., Kin nine is used to cure diarrhea while Re gio is used to cure colds. A group of selected leaves can be used as yeast to make wine.

[7] Phuong Hoang means "phoenix"; the area is around 10 ha.

[8] Mo Neo means anchor; this area is around 4 ha.

[9] Nghien is a perennial tree growing on the rocky mountain with a diameter of more than 1 m and a height of more than 20 m. Its wood is heavy and solid, can resist woodworm, and is used for furniture.

[10] Trai Ly is a perennial tree that provides good wood with yellow color, and is used for furniture.

[11] Dinh, Lim, Sen, Tau, Lat, Gu are ironwood trees that provide wood with high quality, can stand rain, resist woodworm, and is sold at very high price. These kinds of wood are used for furniture.

[12] Gio cake is a pyramidal rice dumpling, filled with meat, onions and mushrooms.

[13] Gai cake is a sweet cake baked with flour and sprinkled with sesame.

[14] Thien Nien Kien is a medical plant that people believe can keep them strong for many years.

[15] Sai Dat is a kind of grass that contains a special substance that helps prevent pimples.

[16] Voi is a leaf that is big and is shaped like an elephant's ear.

[17] These include trees such as *Cratoxylon*, *Ligustrinum, Vernicia montana*, and small *schizostachyum*.

[18] Mr. Ma Van Tinh, an elder and leader of Binh Son village for 10 years, made huge contributions in developing and implementing the forest village convention.

[19] Mr. Duong Van Thuc, an elder who is well-respected in the community, has been leader of the elder association for 10 years and has contributed a lot in developing and implementing the forest village convention.

[20] Approval was based on Government Decree No. 24/2998/ND-CP on the promulgation of regulations on exercising democracy in communes, wards and districts and the Prime Minister's Directive 29-1998/CT-TTG dated 19 June 1998.

[21] At present, the forest is well protected with no damage.

[22] These big native species are *Gironniera subaequalis*, *Parashorea chinensis* and *Bischofia triofiliata*.

[23] Free, prior and informed consent.

[24] Monitoring, Reporting and Verification.

Bibliography

Binh Son Village Management Board. 2000. *Village forest protection Convention*.

Binh Son Village Management Board. 2009. *Village forest protection Convention*.

Vietnam National Assembly. 2003. *Laws on Forest Protection and Development*.

Vietnam Prime Minister. 1998. *Decree on Grassroots Democracy at commune and wards level*.

Vietnam Prime Minister. 1998. *Directive on development and implementation of Village Convention*.

These case studies reveal the secrets of indigenous peoples in protecting, conserving and managing their forestlands.The findings, conclusions and recommendations all point to one thing—policy makers and development planners need to rethink or reorient their mindsets and framework towards forest management.



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