

Indigenous Peoples, Forests & REDD Plus

STATE OF FORESTS, POLICY ENVIRONMENT & WAYS FORWARD



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State of Forests, Policy Environment & Ways Forward

Indigenous Peoples, Forests & REDD Plus:
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FOREWORD

Forests have become a hot issue, specifically in the climate change negotiations. This is because forests are now considered as the fastest and cheapest way to mitigate climate change. According to the Intergovernmental Panel on Climate Change, emissions from deforestation and land use change account for almost 20 per cent of global greenhouse gas emissions—the main cause of climate change. To ensure that forests are protected and conserved therefore means effectively cutting down on these emissions and contributing to climate change mitigation.

Thus, the proposal on REDD+ (or REDD Plus - Reducing Emissions from Deforestation and Forest Degradation and the role of conservation, sustainable management of forests and enhancement of carbon stocks in developing countries) currently being negotiated in the UN Framework Convention on Climate Change (UNFCCC) aims to do just that.

All over the world, many of the remaining standing forests are found where indigenous peoples live. This is because indigenous peoples have sustainably managed their forests and natural resources since time immemorial. They have developed traditional knowledge and practices—handed down through generations—that have helped them sustain and manage these forests and adapt to the changing climate. Their control over their forests and resources are therefore vital to their existence and its sustainable management. Through these practices, they have in effect contributed to climate change mitigation.

Recognition and protection of indigenous peoples' rights over forests and forest resources is a vital component which will ensure that REDD+ will be achieved. However, the recognition and protection of said rights have been, to say the least, problematic. In spite of the fact that most governments have voted for the adoption of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), there is still a long way to go before national laws respecting these rights are legislated. Even among the few governments that have developed laws which recognize and protect indigenous peoples' rights, the implemen-

tation of these are still very weak. National budgets to allow for the effective implementation of such laws are very small; and the bureaucratic machineries in charge of ensuring implementation are largely marginalized.

Many existing land and forest tenurial instruments have denied indigenous peoples of their rights to their territories, forests and resources. This is the general context where we find ourselves in as forests have entered into the center of discussions related to climate change.

It cannot be stressed enough that the respect and protection of indigenous peoples' rights to their forests and their effective participation in decisions made regarding the use of their forests are vital to the success of REDD+. To ensure that indigenous peoples' rights and their effective participation in REDD+ processes (at local, national, regional, global levels) are promoted and supported, Tebtebba is undertaking a project with two-phases which is generously supported by the Norwegian Agency for Development Cooperation (NORAD). The first phase was called "Ensuring effective participation of indigenous peoples in global and national REDD processes" and this was implemented from June 2009 to June 2010. The second phase, which will cover three years (June 2010-June 2013), is called "Ensuring rights protection, enhancing effective participation of and securing fair benefits for indigenous peoples in REDD Plus policies and programmes."

Tebtebba is implementing this together with its partners from nine countries in Asia, Africa and Latin America. These partners are the following: MPIDO (Mainyoito Pastoralists Integrated Development Organization), Kenya; Lelewal, Cameroon; CHIRAPAQ (Centro de Culturas Indígenas el Perú/ Center of Indigenous Cultures of Peru), Peru; CADPI (Centro para la Autonomía y Desarollo de los Pueblos Indígenas/Center for Indigenous Peoples' Autonomy and Development), Nicaragua; Servicios del Pueblo Mixe, Mexico; NEFIN (Nepal Federation of Indigenous Nationalities); CSDM (Center for Sustainable Development in Mountainous Areas) and CERDA (Centre of Research and Development in Upland Areas), Vietnam; AMAN (Aliansi Masyarakat Adat Nusantara/Alliance of Indig-

enous Peoples of the Archipelago) and Institut Dayakologi, Indonesia; and SILDAP and KASAPI (Koalisyon ng Katutubong Samahan ng Pilipinas) for the Philippines

An activity which was prioritized during the first phase of the project was the research on existing national laws and policies which are related to indigenous peoples, forests and climate change. These researches are also designed to look into the drivers of deforestation at the national level. For our partners to become effective in their advocacy work to get the governments and the dominant societies to respect and protect their rights, they have to be well-informed about what are the existing laws and policies and what are the implications of these on their rights and the future work on forests and climate change. These eight country researches, which are published in this book, were done by our partners and we, in Tebtebba, undertook the Philippine research.

These studies covered the drivers of deforestation and existing national laws and policies on forests, land tenure, indigenous peoples and their rights, climate change and REDD+. The reports also provided recommendations on how to address issues and challenges affecting forests and indigenous peoples. The act of doing these researchers, in itself, is a capacity-building process for our partners. In the beginning, some of them doubted if they can do the research. But we insisted that if they want their capacities to be enhanced further, they should carry out the work. Otherwise, if they commissioned non-indigenous researchers to do the research, they run the risk of not having their own perspectives and analysis of the situation integrated. The results of their researches, as shown in the articles in this book, are proof enough that they are capable of doing research and writing up the results.

These policy researches provide an analysis of existing national laws and policies which should be either repealed or reformed for REDD+ to succeed. The results also further strengthen the argument that indigenous peoples will be able to contribute significantly to climate change mitigation if they are able to continue doing their ecosystem-based natural resource management practices, customary use of resources and are supported to pur-

sue further their low-consumption lifestyles and traditional livelihoods. There is no question that the effective implementation of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) at the international and national levels will definitely reinforce indigenous peoples' capacity to mitigate and adapt to climate change. Policies and laws which are discriminatory to indigenous peoples should be repealed or amended to be consistent with the UNDRIP standards. It is imperative, therefore, that national policy frameworks and legislation that protect the rights of indigenous peoples be enacted and implemented so that the traditional and modern stewards of the earth's climate can continue to actively play their roles.

I would like to thank NORAD for the support they have given us to pursue this project which aims to help build capacities of indigenous peoples to empower themselves. To EED (Evangelischer Entwicklungsdienst/Church Development Service) of Germany, who continues to support our work, our heartfelt thanks. I also thank our dear partners for successfully doing these researchers. I thank my colleagues in Tebtebba who have been providing the support and guidance to our partners and who did the Philippines research. These include those in the Research Desk—Helen Magata, Jo Ann Guillao, Mikara Jubay, Marissa Maguide-Cabato and Leah Enkiwe-Abayao as consultant; our Project Assistant, Grace Balawag; and those from the Gender Desk—Beth Bugtong, Christine Golocan and Ellen-Dictaan Bang-oa. I thank Raymond de Chavez, Paul Nera and Marly Carino of the Publications and Information Desk; and Bong Corpuz from the Administration. Finally, a big thanks to Prof. Wilfredo Alangui and his team for editing these research reports.

Victoria Tauli-Corpuz
Executive Director, Tebtebba
Member, UN Permanent Forum on Indigenous Issues (UNPFII)

November 2010

ACRONYMS

A

ACOFUN	Association of collaborative forest users Nepal
ADB	Asian Development Bank
ADEMSCUM	Asociación para el Desarrollo de Miskitus y Sumus de Cuenca media (Association for the Development of Miskitos and Sumus of the Middle Basin)
ADEPSIMISUJIN	Asociación para el Desarrollo de Miskitus y Sumu del Departamento de Jinotega (Association for the Development of Miskitos and Sumus of the Jinotega Region)
ADMP	Ancestral Domain Management Plan
AMAN	Aliansi Masyarakat Adat Nusantara (Alliance of Indigenous Peoples of the Archipelago)
AMICA	Asociación de Mujeres Indígenas de la Costa Atlántica (Association of Indigenous Women of the Atlantic Coast)
ANNCC	Alianza Nacional Nicaraguense sobre Cambio Climático (National Nicarguan Alliance on Climate Change)
AOSIS	Alliance of Small Island States
APF	Action Plan Framework of Climate Change Adaptation and Mitigation - Ministry of Agriculture and Rural Development
AQM	Air Quality Management
ARC	Annual rate of change (of land use)
A/R CDM	Afforestation and Reforestation - Clean Development Mechanism
ASEAN	Association of Southeast Asian Nations
AuSAID	Australian Agency for International Development

B

BCN	Banco Central de Nicaragua (Nicaragua Central Bank)
BICU	Bluefield Indian and Caribbean University

BOSAWAS	Bocay, Saslaya and Waspuk (biosphere reserve)
BS	Bikram Sambat

C

CADC	Certificate of Ancestral Domain Claim
CADPI	Centro para la Autonomía y Desarrollo de los Pueblos Indígenas (Center for Indigenous Peoples' Autonomy and Development)
CADT	Certificate of Ancestral Domain Title
CAI	Clean Air Initiatives
CALC	Certificate of Ancestral Land Claim
CATIE	Centro agronómico tropical de investigación y enseñanza
CBA	Corredor Biológico del Atlántico (Biological Corridor of the Atlantic)
CBD	Convention on Biological Diversity
CBFMA	Community Based Forest Management Agreement
CBS	Central Bureau of Statistics
CC	Climate Change
CCAD	Comisión Centroamericana del Ambiente y Desarrollo
CCC	Climate Change Commission
CCD	Convention to Combat Desertification
CDC	Cameroon Development Corporation
CDM	Clean Development Mechanism
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CER	Certified Emission Reduction
CERD	Committee for the Elimination of Racial Discrimination
CERDA	Centre of Research and Development in Upland Areas
CF	Community Forest
CFMA	Community Forestry Management Agreement
CFSA	Community Forestry Stewardship Agreement
CFUGs	Community forest users groups
CIFOR	Centre for International Forestry Research
CIUM BICU	Centro Interuniversitario Moravo (Moravian University Center) -Bluefields Indian and Caribbean
CMF	Collaborative forest management

CMNUCC /UNFCCC	Convenio Marco de las Naciones Unidas sobre Cambio Climático/ UN Framework for Climate Change Convention
CO2	Carbon Dioxide
CoDe REDD	Community Development through REDD
COFSUN	Community Forestry Supporter's Networks, Nepal
COMIFAC	Central Africa Forests Commission
CONADETI	Comisión Nacional para la Demarcación y Titulación (National Commission for Demarcation and Titling)
CONAFOR	Comisión Nacional Forestal
COP	Conference of Parties
CRAAN	Consejo de la Región Autónoma Atlántico Norte (Council of the North Atlantic Autonomous Region)
CRMF	Comprehensive Resource Management Framework
CSC	Certificate of Stewardship Contract
CSDM	Center for Sustainable Development in Mountainous Areas)
CSO	Civil Society Organization

D

DANAR	Dalit Alliance for Natural Resources
DARD	Department of Agriculture and Rural Development (provincial)
DENR	Department of Environment and Natural Resources
DFO/s	District Forest Office/s
DILG	Department of Interior and Local Government
DNPWC	Department of National Parks and Wildlife Conservation
DoF	Department of Forestry (MARD)
DOLE	Department of Labor and Employment
DRSRS	Department of Resource Survey and Remote Sensing

E

EC	European Commission
ECOFAC	Central Africa Forest Ecology
EM	Ethnic Minorities
ESSC	Environmental Science for Social Change
EO	Executive Order
ET	Emissions Trading
ETS	Emission Trading Scheme

F

FAO	Food and Agriculture Organization
FCPF	Forest Carbon Partnership Facility
FECOFUN	Federation of Community Forestry Users' Nepal
FGMA	Forestland Grazing Management Agreement
FIP	Forest Investment Program
FIPI	Forest Inventory and Planning Institute
FIT	Forest Inventory Technology
FLECT	Forest Law Enforcement, Governance and Trade
FLGLA	Forest Land Grazing Lease Agreement
FLITCH	Forest Livelihood Improvement in the Central Highlands
FLMA	Forest Lease Management Agreement
FMI	Forest Management Institution
FMB	Forest Management Bureau
FPIC	Free, Prior and Informed Consent
FRA	Forest Resources Assessment
FSIV	Forest Science Institute of Vietnam
FSSP	Forest Sector Support Partnership – MARD
FTF	Forest Trust Fund

G

GDP	Gross Domestic Product
GHG	Greenhouse Gases
GIS	Geographical Information System
GRAAN	Gobierno de la Región Autónoma Atlántico Norte (Government of the North Atlantic Autonomous Region)
GTZ	German Agency for Technical Cooperation

H

Ha	Hectare/s

HMG/N	His Majesty's Government of Nepal
HIMAWANTI	Himalayan Grass Roots Women's Association for Natural Resource Management

I

ICC	Indigenous Cultural Communities
ICI	Investment Climate Index
ICIMOD	International Center for Integrated Mountain Development
ID	Institut Dayakologi
ICRAF	World Agroforestry Centre
IFMA	Industrial Forest Management Agreement
IIPFCC	International Indigenous Peoples' Forum on Climate Change
ILO	International Labor Organization
INAFOR	Instituto Nacional Forestal (National Forestry Institute)
INETER	Instituto Nicaraguense de Estudios Territoriales
INDISCO	ILO's Interregional Programme to Support Self-Reliance of Indigenous and Tribal Communities through Cooperatives and other Self-Help Organizations
INIDE	Instituto Nacional de Investigación para el Desarrollo (National Institute for Developmental Research)
INGO	International Non-governmental Organization
IP	Indigenous Peoples
IPCC	Intergovernmental Panel on Climate Change
IPRA	Indigenous Peoples Rights Act
IREMADES-RAAN	Instituto de Recursos Naturales Medio Ambiente y Desarrollo Sostenible (Institute of Natural Resources Environment and Sustainable Development)
IUCN	International Union for Conservation of Nature
IWG-IFR	Informal Working Group for Interim Finance for REDD

J

JI	Joint Implementation
JICA	Japanese International Cooperation Agency

K

KACCAL	Kenya's project on Adaptation to Climate Change in Arid Lands
KALUMAHIN	Federation of Indigenous People in Far South Mindanao
KP	Kyoto Protocol
KUNASPAWA	Kipla Uplika Aslah Pawangka

L

LDCF	Least Developed Counties Fund
LFGUs	Leasehold forest users groups
LGU	Local Government Unit
LRMP	Land Resource Mapping Project

M

MAG-FOR	Ministerio Agropecuario Forestal (Ministry of Agricultural Forestry)
MAKALAHNA	Mayangna Kalpapakna Aslah Lani Nuhni Dunin
MAP	Medicinal Aromatic plants
MARD	Ministry of Agriculture and Rural Development
MARENA	Ministerio del Ambiente y Recursos Naturales y
MASAKU	Organización Indígena Mayangna (Organization of Mayangna Indigenous Peoples)
MATUNBAK	Mayangna Tungkih Banban Kalpapakna
MEAs	Multilateral Environmental Agreements
MECD	Ministerio de Educación Cultura y Deporte (Ministry of Education, Culture and Sport)
MINAG	Ministry of Agriculture
MINEN	Ministry of Environment
MINEP	Ministry of Environment and Nature Protection
MITK	Miskitu Indian Tasbaika Kum
MOA	Memorandum of Agreement
MOE	Ministry of Environment
MOF	Ministry of Finance
MoFSC	Ministry of Forest and Soil Conservation
MONRE	Ministry of Natural Resources and Environment
MOST	Ministry of Science and Technology
MPFD	Master Plan for Forestry Development
MPFS	Master Plan for Forestry Sector

MPIDO	Mainyioto Pastoralists Integrated Development Organization
MRV	Measurement, Reporting and Verification
MWDR	Mid-Western Development Region

N

NAPA	National Adaptation Program of Action
NAPCC	National Action Plan on Climate Change
NCCC	National Commission of Climate Change
NCCRS	National Climate Change Response Strategy
NCIP	National Commission on Indigenous Peoples
NCRFW	National Commission on the Role of Filipino Women
NDCC	National Disaster Coordinating Council
NEFIN	Nepalese Federation of Indigenous Nationalities
NEMP	National Environmental Management Program
NFA	Nepal Foresters Associations
NFDIN	National Foundation for the Development of Indigenous Nationalities
NFI	National forest inventory
NFIMAP	National Forest Inventory, Monitoring and Assessment Program
NFSCC	National Framework Strategy for Climate Change
NGO	Non-Government Organization
NIA	National Irrigation Administration
NIPAS	National Integrated Protected Areas System
NISI	National Institute of Statistics and Informatics
NIWF	National Indigenous Women Federation-Nepal
NOCCOP	Standing Office of Vietnam National Steering Committee for United Nations Framework Convention on Climate Change and Kyoto Protocol
NORAD	Norwegian Agency for Development Cooperation
NPC	National Planning Commission
NPC	National Power Corporation
NPDP	National Participative Development Plan
NPWC	National Parks and Wildlife Conservation
NPWPA	National Parks and Wildlife Protection Act
NREB	National Renewable Energy Program

NRPS	National REDD Plus Strategy
NTFP-EP	Non Timber Forest Product Exchange Program
NTP-RCC	National Target Program to Response to Climate Change
NWC	National Women Commission

O

OCCA	Standing Committee for Climate Change (MARD)
OECD	Organization for Economic Cooperation and Development

P

PA/s	Protected Area/s
PAF	Plan de acción forestal (Forestry Action Plan)
PAMB	Protected Areas Management Board
PAMOL	Palm Oil Corporation
PASU	Protected Area Superintendent
PCA	Partnership for Clean Air
PD	Presidential Decree
PES	Payment for Ecosystem Services
PGM	Plan General de Manejo (General Management Plan)
PIA	Philippine Information Agency
PIN	Project Idea Note
PNA	Protected Natural Area
PNGE	National Plan for Environmental Management
PNM	Philippine National Museum
PNOCAFC	Philippine National Oil Company Alternative Fuels Corporation
PTFCC	Presidential Task Force on Climate Change

R

RA	Republic Act
RAAN	Regiones Autónoma Atlántico Norte (North-Atlantic Autonomous Regions)
RAAS	Regiones Autónoma Atlántico Sur (South-Atlantic Autonomous Regions)
RCFEE	Research Centre for Forest Ecology and Environment
RDC	Regional Development Council

REALU	Greenhouse Gas Emissions from Land use Change
REDD	Reducing Emissions from Deforestation and Forest Degradation
REDD+	or REDD Plus - Reducing Emissions from Deforestation and Forest Degradation and the role of conservation, sustainable management of forests and enhancement of carbon stocks in developing countries
REDD-ALERT	Reducing Emissions from Deforestation and Degradation through Alternative Land use in Rainforests of the Tropics
REL	Reference Emissions Level
R-PIN	Readiness Plan Idea Note
R-PP	Readiness Preparation Proposal
RUPES	Rewarding the Upland Poor through Environmental Services

S

SCCF	Special Climate Change Fund
SDA	Sustainable Development Agenda
SEC	Securities and Exchange Commission
SEDP	Socio-economic Development Plan
SERENA	Secretaría (del gobierno regional autónomo) para los recursos naturalesSERENA Secretaría (del gobierno regional autónomo) para los recursos naturales
SFM	Sustainable Forest Management
SIFMA	Socialized Industrial Forest Management Agreement
SIMSKULT	Sikilta Mayangnina Kal Uduhna Tanituna
SNCPA	System on Native Communities of the Peruvian Amazonia
SNV	Netherlands Development Organization
SOSUCAM	Cameroon Sugar Company
STC	Southwood Timber Corporation

T

TFF	Trust Fund for Forestry
TLA	Timber License Agreement
ToR	Terms of Reference

U

UFP	Unit of Forest Planning
UN	United Nations
UN OHCHR	Office of the High Commissioner for Human Rights
UN-REDD	United Nations Collaborative initiative on Reducing Emissions from Deforestation and forest Degradation (REDD) in developing countries
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
URACCAN	Universidad de las Regiones Autónomas de la Costa Caribe Nicaragüense (University of the Autonomous Regions of Nicaragua's Caribbean Coast)
USAID	United States Agency for International Development

V

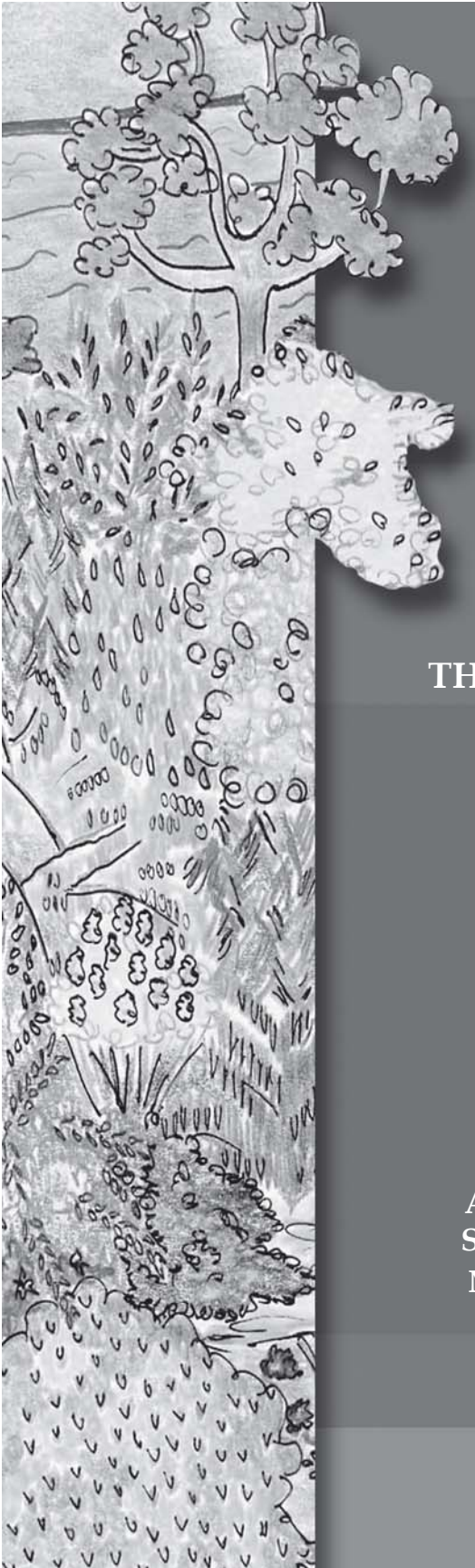
VFI	Vietnam Forestry Institute
VND	Vietnam dong
VNGO	Vietnamese Non-governmental Organization

W

WB	World Bank
WWF	World Wide Fund for Nature

Y

YATAMA	Yapti Tasba Masraka Nani Asla Takanka



1

THE ETHNIC MINORITIES IN REDD+ IMPLEMENTATION: THE CASE OF VIETNAM

By
Centre of Research and Development in Upland Areas (CERDA) & Centre for Sustainable Development in Mountainous Areas (CSDM)

DRIVERS OF DEFORESTATION AND FOREST DEGRADATION

Vietnam is one of the countries most affected by negative effects of climate change. Vietnam is also one of the pilot countries in the UN-REDD programme, under which it is formulating REDD (Reducing Emissions from Deforestation and Forest Degradation) policies and implementation procedures, and building capacities at different levels. This research provides analysis of the issues affecting the lives of ethnic minorities, as REDD will be implemented and forest management changes are introduced. The first issue touched upon is current deforestation and forest degradation in Vietnam, and the causes of that.

Vietnam has total land area of 330,003 km^2 (or 33 million ha). Mountains and hills account for three quarters of the total land area. The officially designated forestry land area is 16.2 million ha or 49 per cent of the total. The actual forest area was 13.1 million ha (or 38.7% of total land area) at the end of 2008, including 10.3 million ha of natural forest and 2.8 million ha of plantation forest. Forests are home to over 25 million people of which 11 million are ethnic minorities.

Vietnam is a multi-ethnic country with 54 ethnic groups, and the majority group is called "Viet" or "Kinh" which accounts for 86 per cent of the population while 53 ethnic groups which accounts for 14 per cent of the population with 12 million. Most ethnic minorities live in upland and mountainous areas in Northern and Central parts of Vietnam and are much poorer than the majority Kinh population. The poverty rate amongst ethnic minorities in Vietnam is considerably higher than the country's average. At the same time, they are facing a lot of difficulties due to population pressure, degraded forest and reduced forestry land per capita, and natural resource exhaustion.

Despite steadily increasing total actual forestry coverage in Vietnam, deforestation and forest degradation still occurs in Vietnam, such as the Central Highlands, Central and South-East Coastal area, and the Northern Mountains Region. According to the report of National Forest Inventory, Monitoring and Assessment Program (NFIMAP), phase III, over two-thirds of Vietnam's natural forest is considered of poor quality while rich and closed-canopy forest constitutes only 4.6 per cent of the total (in 2004), and is mostly located in remote mountainous areas. The report also shows that forest quality and biodiversity are continually deteriorating. Between 1999 and 2005, the area of the natural rich forest decreased by 10.2 per cent and medium forest reduced by 13.4 per cent.

The forest is categorized into three types namely: Special use forest; Protected forest and Production forest (See Table 1).

Table 1: Forest classification, type per area and percentage (in 2008)

	Categories	Description	Total area
1	Special use forest	Aiming for nature conservation; national forest standard model; forest genetic sources; protecting historical and cultural relics, beauty spots; ecotourism with environment protection. Special use forest under the government management	2.1 million ha (15.7% of total forest area)
2	Protected forest	Aiming at protecting water resources, land; preventing soil erosion, desertification and natural disasters; stabilizing climate and contributing to environment protection. Protected forest under the government management	4.7 million ha (36.1% of total forest area)
3	Production forest	Aiming for production, trade of timber and other forest products and contributing to environment protection. Production forest allocated to households, individual, organizations; forest use rights for 50 years legally confirmed by Certificate.	6.2 million ha (47.2% of forest area)

Source: Research Centre for Forest Ecology and Environment (2008).

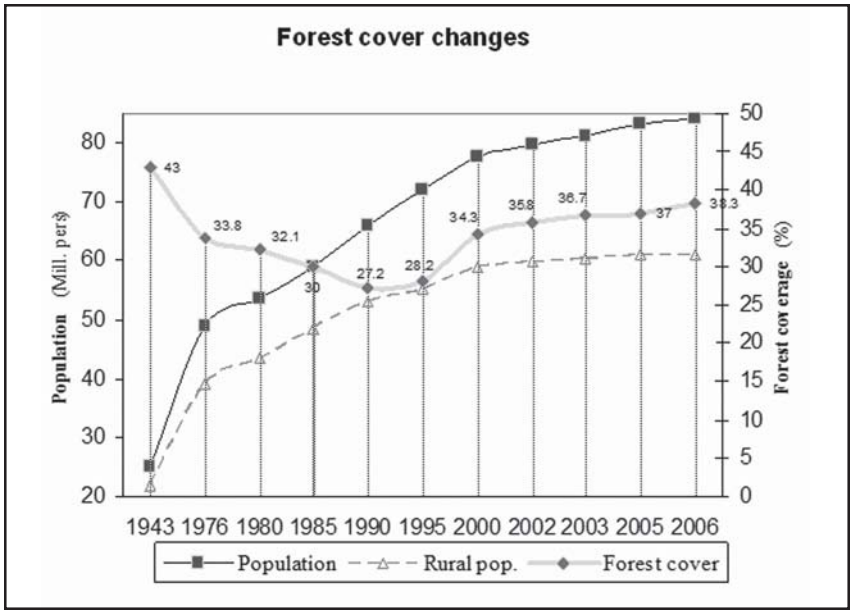
With efforts by the Government for forest protection and plantation through national programmes, many forestry land areas have been planted, and as a result the forested area increased from 9.2 million ha (in 1992) to 13.1 million ha (in 2008). Forest cover thus increased from 28 per cent (1992) to 38.7 per cent (2008). Forest cover has changed dramatically and dynamically over the time and space (See Graph 1 and Graph 2).

However, the change is not the same in all regions. Importantly, because of forest expansion due to afforestation with mono cultures of fast growing and short rotation species, the forest has a single canopy layer and relatively low biodiversity and low carbon stock. Forest quality is thus low and some parts of special use and protected forests are still degrading. The area of primary forest was reduced from 3.84 million ha (1990) to 0.84 million ha (2005), a decline of 29,900 ha/year.

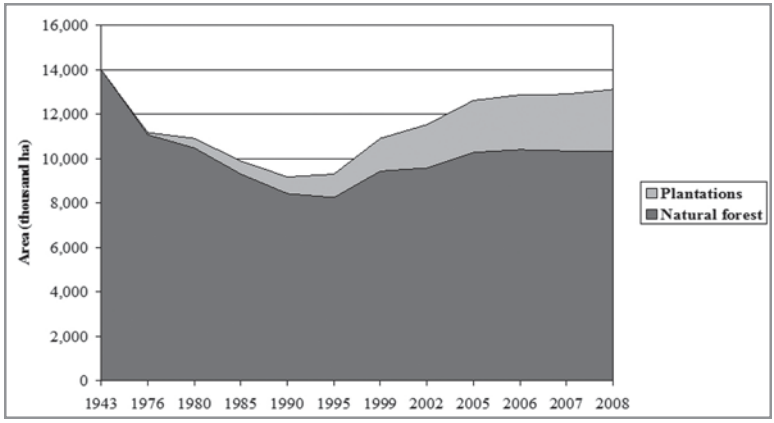
The results of several studies on changes of forest resources since 1991 by MARD indicated the major drivers of deforestation and forest degradation in Vietnam are as follows:

- Conversion of forests into other land uses is one of the most important factors driving deforestation and forest degradation, especially agriculture and aquaculture conversions (the latter especially in lowlands and coastal mangrove forests);
- Development of infrastructure and construction of hydropower plants;
- High population growth, resettlement, migration and poverty;
- Inappropriate forest management and harvesting methods (e.g., excessive timber logging), and especially the continuing problem of illegal logging. There are an estimated 30-50,000 forest violations per year, very few of which lead to criminal prosecution;
- Incomplete legal system and lack of capacity to enforce the rules; lack of coordination between enforcement agencies; unclear land-forest tenure; as well as corruption continue to drive the problems of deforestation and forest degradation;

Graph 1. Forest cover changes



Graph 2. Change in area of natural forests and plantations between 1943 and 2008



- Increasing market demand for timber products, wood processing and the sale of furniture in particular.

Ethnic minority and local authority representatives from 10 Central and Northern mountainous provinces participated in the consultation workshops organized by CERDA (Centre of Research and Development in Upland Areas) and CSDM (Centre for Sustainable Development in Mountainous Areas). Local people participated in the workshops on climate change and REDD awareness raising in Thai Nguyen, Lang Son, and Lao Cai. Hoa Binh, Yen Bai. These stakeholders agreed on causes of deforestation and forest degradation given by the Ministry of Agriculture and Rural Development (MARD) (as listed above), and other factors were also specified, as follows:

- Policies relating to forest land rights are not concrete enough, so the local authorities are often unclear on how to ensure policy implementation;
- Local people have poor access to the policy. Dissemination of policies on forest and forest land to local people is limited.

Information on these laws and policies are disseminated to the commune but not much information reaches the households. As such, many people are essentially "law and policy blind," and even some commune officers do not fully know the policies and laws.

At present, in terms of the production forest land, the production forest land allocated to communities accounts for only one per cent and the production forest allocated to households 29 per cent, and 23 per cent of the production forest land still is not allocated to households, now still under the management of the People Committee. With the allocated forest areas, the communities and households have not been able to create sustainable income from their forest. There are some reasons for this, including weak cooperation within communities for forest protection and forest product commercialization; poor access to inputs for forest plantation; and poor access to markets for their products. On the other hand, the government forest plantation programs make the local people passive; not have had any opportunities to participate in the forest plantation planning, just

passively receive the seedlings with no concrete plan. Instead of actively investing in forest plantation, they wait for government support. They also lack training on technical skills for planting and insect and disease control, especially regarding new tree varieties.

The current policies and programs supporting the communities, households for forest plantation are not very effective. For example, the seedlings provided freely by P661 are not of good quality. They are also not distributed for planting at the right planting time, resulting in low survival rate for seedlings planted. Seedlings which are unused also go to waste.

In regard to protected forests, many policies were issued by the government to provide opportunities for the local people to take part in forest protection and gain benefit from this. However, policy implementation has not been very effective because the local community members have not been given access to full policy information. Because of this, they are not able to actively participate in forest protection and are unable to take full advantage of the benefits afforded by the policies. In instances where local community members were able to participate in programs which were given in line with policy implementation, delays in payments led to the gradual waning of enthusiasm of support for the policy. This can be considered as one of the indirect causes of forest degradation and deforestation.

- *Local authority capacity in forest management is limited and enforcement is not effective*

Almost all the protected and special use forests areas are managed by the district Forest Management Departments. The unallocated production forest area is under the management of local People Committees. The communities and households have not been involved in protection of these kinds of forests. Meanwhile, the human resources of Forest Management Departments are usually limited and they also have not been completed their tasks. The Forest Management and Forest Ranger Departments have not been able to implement the proper approaches to mobilize the local community to protect and be able to benefit from protected and special use forest protection as the policies intended.

The rules have not been properly complied with and the measures to prevent illegal logging in certain places are not strong and comprehensive enough. In fact, illegal logging and deforestation is more rampant in some protected forests and in unallocated production forestry land under the management of People Committees, not in the forest land that is allocated to households.

With the improvement of roads and access to technology like power saws, motorbikes, cars and trucks, the conditions for deforestation and number of illegal loggers have increased. Some local people with very low income gain employment from loggers and timber smugglers for their livelihood. The people who work for timber smugglers as well as other local people, including village heads, are too afraid to inform the authorities and Forest Management Department about the practices.

- *Unsustainable forest management*

Some forestry policies and programmes were implemented but the local people do not yet apply traditional knowledge and rules in managing forest in sustainable ways. For example, the natural forest land has been converted to agricultural land and monoculture forest plantation, and the overturning of the sloping land causes the serious erosion.

- *Livelihood pressure*

Natural population growth, resettlement and migration from lowlands to uplands, and from the Northern mountainous region to the Central Highlands creates pressures on forests and the living standards of local people. As the land area per head reduces, the slash and burn for agricultural cultivation and deforestation continues. As a result, forests are being exploited and exhausted dramatically. Conversion of forestry land to different purposes happened in the past 20 years due to migration and because enterprises lease forestry land for non-forestry goals.

Two types of migration can be distinguished: guided resettlement and migration from the lowlands to uplands, especially to establish new economic zones as has happened in the past, and spontaneous migration. Spontaneous migration has taken place continuously since reunification (30 April 1975). Cooperatives and settlers in new economic zones have reclaimed

large forest areas to conduct their economic activities. Migrants are diversified and may be Kinh from lowland areas or Hmong, Dao, Tay, or Nung people from the North. The reasons for migration include the fact that areas of original forestry land became exhausted and soil became impoverished and difficult to cultivate. Original lands also became insufficient to carry the growing populations. Further, although in principle, the traditional practice of slash and burn is sustainable, the tipping point at which regeneration of forest no longer happens over sufficiently long periods has been reached. This has negative effects on biodiversity and land productivity. As a further result, erosion risks are emerging and increasing.

IMPACT OF DEFORESTATION AND FOREST DEGRADATION ON ETHNIC MINORITIES

Due to deforestation and forest degradation, both timber and non-timber forest products are being exhausted, and forest-dependent people's livelihoods are affected negatively. Because of the population pressure and reduced per capita forest area, the lack of cultivation land becomes a big problem for villagers, especially for the newly-married couples.

In addition, the soil quality is degraded due to unsuitable cultivation. For instance, the plough for rice and maize cultivation that Kinh people use in the flat paddy rice fields is used for sloping land, but many are not applying Sloping Agriculture Land Use Techniques (SALT). As a result, in many places the soil layer on sloping land becomes much thinner and rocks become exposed. An elderly Hmong lady quipped," Today, rocks sprout so quickly and there are so many of them."

Apart from population growth, ethnic minority people have difficulties in accessing off-farm jobs due to limited professional qualifications. Young adults stay in the local area to live in their village, so the per-capita agricultural land is continually reduced.

With the allocated production forestry land, the local people's forest income is low and decreasing. The cooperation within communities in using and managing forests is still weak, which

leads to limited access to the plantation input and the markets. So the value of forest products is low and there is no long-term economic strategy of households and communities. However, in some areas, local people created institutions, cooperated in forest protection and had reasonable forest income with effective support by outside agencies or projects.

The forest is at the heart of the life of the culture of ethnic minorities. It reflects the culture, customs and traditional values carried from generation to generation and the loss of forests will be detrimental to the community members' spiritual lives and traditional customs. Ethnic minorities believe that every hill, stream and mountain is governed by deities who are responsible for the well-being of their lives, so respect for the forests is ingrained in their hearts and the community regulations function effectively for the protection of the forests. Thus the sacred forests support biodiversity conservation and water source protection. However, in many cases the traditional regulations are no longer respected by communities. As traditional connections among communities begin to disappear, they also begin to neglect the forest.

In the context of climate change, ethnic minority groups are more vulnerable and increasingly affected by natural disasters and extreme weather. Local people do not have enough resources to respond or adapt to serious natural disasters, in particular those events which are being enhanced by climate change. Indigenous knowledge that has been transferred down and enriched the generations cannot fully solve the present conditions and address present needs to adapt to the increasing incidence of extreme climate phenomena such as flash floods, landslides and droughts.

LAWS, POLICIES AND PROGRAMMES ON FOREST, FORESTRY LAND USE RIGHTS, REDD, CLIMATE CHANGE, AND ETHNIC MINORITIES AND THEIR LEGAL RIGHTS AND RESPONSIBILITIES

Forest Use, Protection and Management

Vietnam has issued many laws and policies, and implemented different programs to benefit households, communities and enterprises who participate directly in forest protection and plantation (See Annex 1). On 29 July 1998, the Prime Minister enacted Decision 661/1998/QD-TTg implementing the five million ha forest plantation program (Program 661), and promulgating mechanisms for natural forest protection. People's Committees at different levels are assigned to define forest locations and scale; implement forest allocation and forestry land leasing; and issue land use rights certificates for households and other economic entities in compliance with the law and regulations. With respect to Protection Forests, the Prime Minister issued the Decision 178/2001/QD/TTg on 12 November 2001, defining the benefits for and responsibilities of individuals and households who sign contracts to protect Protection Forest land.

However, according to the plan on forestry land allocation and leasing for the period of 2007-2010 and Decision 2740/QD-BNN-KL of 20 September 2007 of the Minister of MARD, several shortcomings will be observed in the course of policy implementation. These are outlined as follows:

- In many places, the boundary of allocated forestry land is not clearly demarcated; and the process of land allocation has not been consistent, comprehensive and well-managed. Therefore, the Government is undertaking the national forestry land cadastral map. Some allocated forestry land has been converted to the other land use purposes, but many of these cases have not been treated according to the law and regulations.
- According to assessment in 2008, around 20-30 per cent of allocated forestry land started to bring benefits to the forest owners but in unsustainable ways. Many state

owned enterprises were allocated large areas of forest but they do not have sufficient capacity for effective management. Forests under management of People's Committees have not been protected and well-managed. Households and communities have been allocated some forestry lands, but this is insufficient and they cannot rely on this for their incomes.

- Forest protection and management is closely linked to socio-economic development and poverty reduction. Forest protection and management has been considered as the tool for economic and social development and poverty alleviation for years, but some surveys show that the poorest people are the people in or near forests; and they are often implicated as a factor of deforestation and forest degradation. Vietnam has encountered a lot of challenges in persuading and encouraging local people to participate in forest protection and management but the outcomes are not satisfactory. Important causes of this are people's limited awareness, poor policy dissemination to communities; overlapping and unclear tasks and assignments of agencies; and limited government investment in forest protection and development.

Vietnam is the first country in South-East Asia to implement Payment of Environment Services (PES). According to the Prime Minister's Decision 380/QD-TTg of 10 April 2008, PES pilots were agreed upon in provinces of Lam Dong, Dong Nai, Ninh Thuan, Binh Thuan, Son La and Ho Chi Minh City. These include: (i) Water supply; (ii) Soil protection and erosion control; and (iii) Ecological tourism. According to this Decision, hydroelectric plants pay VND20 (0.125 US cents)/kWh; waterworks pay VND40 (0.25 US cents)/m3 water; ecological tourism companies pay from 0.5 to two per cent of their turnover. In addition, MARD approved on 5 December 2007 the plan "Supporting People in the Uplands in Sustainable Agriculture-forestry Cultivation During the Period of 2008-2012" by providing 10 kg of rice/person/month as well as low interest loans for forest plantation and agriculture cultivation. Experience drawn from the pilot will be studied in order to make recommendations regarding payment for REDD participation (forest carbon ab-

sorption) in the future. In theory, with the PES system, forest dwellers can create income from forest protection activities and contribute to sustainable forest management. Almost all people participating in the pilot PES are ethnic minorities in the Lam Dong and Son la provinces.

Forest Tenure

In the past, most natural forestry land was managed by government and state enterprises. Since 1994, the government has issued policies and decisions to allocate forestry land to households, individuals and economic entities, to improve the execution of law and regulations on forestry land rights and ensure sustainable forest management. This is a big change in terms of land tenure in Vietnam.

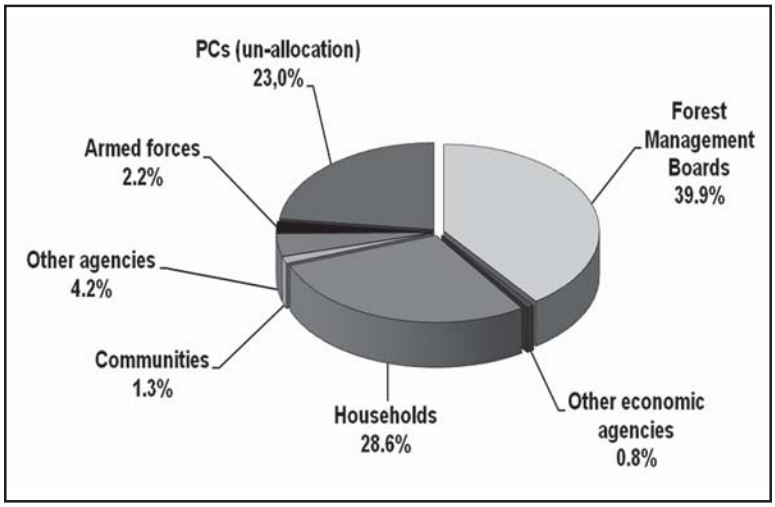
Forestry land allocation is considered as a very important policy in order to develop the economy and society; in particular, it contributes to poverty reduction among ethnic minority groups. According to MONRE (2009) 1,037,000 land use certificates with an area of 8,422,000 ha of forestry land have been issued nationwide, which accounts for 69.2 per cent of the area required for allocation and 51.9 per cent of total forest area planned for forest development.

The Government issued a number of Decisions and Decrees that promote forestry land allocation to households. The Prime Minister's Decision 146/2005/QD-TTg of 15/6/2005 confiscates productive forestry land from state enterprises for redistribution to poor ethnic minority households. Government Decree 200/2004/ND-CP of 03/12/2004, promulgates the restructuring and reform of state forest enterprises. Some state enterprises have to change into forest companies, while others will be under the purview of the Forest Management Board. All ineffective state enterprises will be dissolved and their forestry land areas confiscated and allocated to communities, households or individuals. The Law of Forest Protection and Development in 2004 considers communities as legal entities who have the rights to be allocated forestry land. Still, they are still being limited more than the others in accessing the forest land. In fact, despite

legal basis, the implementation of forest land allocation process has been slower than planned.

According to the General Department of Forestry, the production forestry land has been allocated to the seven forestry land users as follows: for households (28.6%); communities (1.3%); Forest Management Boards (39.9%); other economic agencies (0.8%); Armed Forces (2.2%); other agencies (4.2%); and People Committees manage the unallocated production forestry land (23%) (See Graph 3).

Graph 3. Forestry land allocation in 2010



Source: General Department of Forestry (2010) implementation.

On September 2007, MARD issued the National Project on Forestry land Allocation for the Period of 2007-2010 with a total of budget VND980,592 million in order to promote the forestry land allocation process with the expectation of 12.6 million ha to be allocated to communities, households and other economic entities by the end 2010. The main tasks of this process (concerning the 12.6 million ha) include:

- Review and adjustment of all procedures and applications for land certificates and status of the allocated forest areas. It is expected that approximately 8.8 million ha of the protected forest area, special use forest and production forest will be allocated to different entities;

- Allocation and lease of approximately 2.8 million ha of forestry land which are currently managed by commune People's Committees, with priority given to poor communities, local households and individuals who are living in or near forests;
- Review of procedures and granting of forestry land use certificates for a total of one million ha.

The policy states that depending on their needs, each household has a right to be allocated a maximum of 30 ha based on the availability of forestry land in their own district and commune. The contract for forest protection and lease is applied for all special use forests, protected forests, and natural and cultivation forests. Depending on the total area of forestry land in each commune; the target group for a forest contract and lease is given priority as follows:

- Residential households and individuals in the village or commune;
- Households and individuals who have lived near a certain forest for a long time and who are accepted by local people;
- Communities for whom the forest is a "Sacred forest" which they protect as source of sustenance and life (e.g., forests which are protected by the community as they depend on these for water supply);
- Army troops who are located in or near a forest;
- Forest Management Board;
- State forest enterprises and other economic entities.

According to the forestry land allocation and lease policies, households and individuals living in the forest area are the first priority.

The accumulation of small forestry land areas to form larger forested areas is made possible by: (1) join-venture and collaboration; (2) forestry land lease; (3) forestry land rights transfers. This is very important for REDD to consider during REDD design and implementation.

In terms of land tenure rights, the relevant policies on forest and forestry land create the opportunities for ethnic minorities to have priority over to access to forest land. Based on the policies, the forest land user are provided the five rights asserted by a land certificate (Red book), which is an important condition for participation in REDD. In fact, the ethnic minorities know very little about land use rights and the relevant policies. The challenge is in how to fully inform local people, especially the poor on how they can access and derive full benefit from the relevant policies and laws such as the forest land allocation, protected forest protection (Decree 178, 2001) and forest plantation programs. In reality, most ethnic minority households cannot rely on income from forest and have yet to take full advantage of the policies. This social problem is not easy to solve, and poses challenges for REDD design and implementation as well. REDD implementation strategies must be able to address the challenges as well as recognize opportunities as follows:

- Communities will play a key role in forest protection if there is strong and effective mechanism to promote their mutual cooperation as has happened traditionally. However, the production land allocated to communities so far is small (1%) and to households it is not high either (just 29% of the total production forest land);
- Local people have limited access to the forest protection and production forest land allocation policies, which could happen also under REDD;
- There is a serious lack of the appropriate actors like support agencies, local leaders to promote the cooperation among villagers;
- Forest governance is currently not strong enough and this may remain the case when REDD is implemented;
- There are big differences in forestry land area allocated to different households. In some cases, control and management of forest areas are mixed and different forest users may be not willing to cooperate with other groups to protect the forest. For example, discrepancies between the interests of private companies and local people could happen;

- Local people have the right to generate income from their forestry land, and to harvest timber they need to accomplish a lot of paperwork. However, they know very little about this procedure, lack instruction on how this is accomplished and as such, are unable to follow the rules. This could also happen in the case of REDD implementation.

All these factors pose challenges in implementing REDD and especially in developing a benefit sharing system.

Reducing Emissions from Deforestation and Forest Degradation (REDD)

The effort of Vietnam at the international level is evident from different actions which it has undertaken: Vietnam has joined the UNFCCC (UN Framework Convention on Climate Change) and other multilateral environmental agreements (MEAs). Vietnam has also issued policies on climate change adaptation and mitigation (See Annex 3).

Vietnam believes that REDD will require a new level of forest governance. Thus, it needs to re-frame policies on forestry and targets for capacity building in the context of climate change. Vietnam's views about REDD implementation are as follows:

- REDD is a trans-boundary issue and requires different stakeholders' participation;
- REDD requires a national scale program to avoid leaking out of resources but it accepts project based interventions in the first phase in order to achieve the learning by doing strategy;
- REDD is as an important part of the National Target Program to Respond to Climate Change and the National Forestry Development Strategy;
- REDD uses the existing institutions, networks and forums such as ISG under MARD and the Forest Sector Support Partnership (FSSP) and it develops a close relationship between MARD and MONRE;

- For REDD it is important to mobilize resources from Government, donors, private sector and local authority, and to integrate it in the Socio-economic Development plan (SEDP);
- The use both market-based mechanism and non-market based mechanism during REDD program implementation is important;
- REDD focuses on the internal effort and resources, national coordination, but it also looking for external support from international donors.

National REDD objectives are as follows:

- Reduce emissions from deforestation and forest degradation and ensure economic development and poverty reduction for ethnic communities in the mountainous area through sustainable forest management and development (reforestation and afforestation);
- Strengthen forest management and reforestation which will cover a total of 14.3 million ha by the end 2010 (with a forest cover of 43%) and 16.24 million ha by the end 2020 (with the forest cover of 47%). This figure will be reconsidered officially later by state.
- Forest plantation with a total of one million ha (in the period of 2006-2010) and 1.5 million ha (in the period 2011-2020);
- Wood production with a total of 20-24 millions m^3/year.

A national REDD strategy must include and assessment of the environmental and social impacts of REDD as well as human resource and financial demands. Further, it must clarify responsibilities of each stakeholder to ensure that REDD is consistent with national law and policy systems to ensure that equal benefit sharing, democracy, transparency and accountability result, It must also design a proper system for reporting, monitoring, verification, REL (Reference Emission Level) as well as develop a database system of REDD activities at country level.

These REDD objectives indicate that REDD focuses on areas which have faced forest degradation and risk of deforestation, gives priority to reforestation, ensures biodiversity conservation of the tropical forest and increased forest Carbon stock and sustainable forest management. Importantly, it gives priority to ethnic communities, particularly those in the mountain areas and recognizes the vital role of the participation of ethnic minorities, poor communities, and women in REDD (là những người được ưu tiên tham vấn và tham gia REDD.)

Ethnic minorities are a major stakeholder in REDD. Although at the national level there is no representative of ethnic minorities there are Vietnamese NGOs' who work with ethnic minorities. The REDD programme must effectively promote processes in which points of view, needs, and rights of vulnerable groups (women, the poor and ethnic minorities) can be integrated in programme activities. The participation of these groups and individuals must be sought in discussions and negotiations on the development processes, the use of using natural resources and improved implementation of sustainable development policies so that their knowledge and practical experience can be applied. Consequently, the vulnerable groups will be better enabled to access policies and will have a stronger voice in the development process.

Climate Change Adaptation and Mitigation

The Government has issued many policies in order to enable efforts of different stakeholders in climate change adaptation and mitigation (See Annex 4). The National Target Programme to Respond to Climate Change aims to assess the level of impact of climate change on different areas and locations in order to develop action plans for both short-term and long-term periods, to ensure the sustainable development of the country and take full advantage of development opportunities towards a low carbon emissions economy, and to actively participate in climate change adaptation and mitigation efforts of the international community.

The National Strategy on Forestry Development for the period of 2006-2020 with Program 1 of sustainable forest management identified key priorities such as environmental protection, natural resource conservation, institutional capacity building, human resource development, technology transfer, and capacity building for research. In addition, there are some other programmes and policies that affect the ethnic minorities directly, such as the Action Framework on climate change adaptation and mitigation for the period 2008-2020 (of MARD) which contributes to improvement of capacity of climate change adaptation and mitigation as well as ensures sustainable development in agriculture and rural areas. Key objectives of this framework are to secure livelihood conditions and sustainable production for communities in high risk regions such as the Mekong Delta and Northern and Central coastal regions, as well as mountainous regions. In addition, the framework helps to ensure that cultivation land can be used twice per year. It also helps to protect irrigation system and other socio-economic infrastructure, and strengthen community-based disaster risk management (CBDRM).

Furthermore, there are projects that aim to increase awareness of communities to better organize CBDRM models at all levels, especially the commune and village level, to minimize the negative effects on natural resources, environment, and cultural heritage. Still other projects aim to: contribute to sustainable development of the country; pilot payment systems for ecosystem services (PES) in Lam Dong and Son La mountainous provinces which focus on water source control; reduce land erosion; encourage ecology-tourism to strengthen market opportunities; enable payment for ecosystem services and ensure financial sustainability of nature reserves; raise awareness of communities the on value of ecosystems; improve livelihood conditions and the quality of life for local people and support social development.

Ethnic groups

As emphasized in the REDD program, the target group of many reforestation and afforestation programs is ethnic minority groups. There are several policies (See annex 4) that support the improvement of ethnic minorities' lives, such as the socio-economic development Programme for the poorest communes in the period 2006-2010. Several aspects of life of poor ethnic minority households in these communes will be improved sustainably as a result. The Programme aims to support sustainable and market-oriented agriculture and forestry and supports agricultural production in order to prevent deforestation. It also seeks to change the production structure to ensure quality and effectiveness of investment; to protect cultural identity of ethnic minority groups; support national security; and raise awareness on environmental protection and national security. Policies and programmes should create favorable conditions for ethnic minorities to improve their long-term income and the quality of their living environment, and thereby contribute to forest protection. However, as mentioned above, a mechanism to ensure the participation of ethnic minority groups at central level is still lacking, although there are Vietnamese NGOs who work directly with ethnic minorities.

ANALYSIS OF MECHANISM AND PROCESS OF REDD DESIGN

REDD Implementation in Vietnam

Vietnam ratified the UNFCCC in November 1994 and ratified the Kyoto Protocol in September 2002. The Vietnamese Government also issued policies on climate change adaptation and greenhouse gas emissions mitigation and on natural resource management and environmental protection. Vietnam has also produced the national Action Programme Framework in responding to climate change in Agriculture and Rural Development for the period of 2008-2020, in which reducing greenhouse gas emis-

sions through efforts to prevent deforestation and forest degradation is one of important issues.

Vietnam affirms that REDD is one of the key components of the National Target Program to Respond to Climate Change (NTP-RCC) and the National Forestry Development Strategy. REDD implementation, together with PES is expected to create a sustainable and innovative financial mechanism in order to attain sustainable forest management (SFM), biodiversity conservation, and socio-economic development in rural and mountainous areas. REDD implementation is set to be voluntary, based on the country's conditions and national sovereignty, and must happen under a transparent and effective coordination and cooperation mechanism.

In terms of the REDD institutional structure, the Steering Committee of the UN-REDD programme in Vietnam was established and is headed by the Minister of MARD and UN Resident Coordinator. A national REDD network exists, headed by MARD and a donor representative. A REDD working group/ technical group has also been established. The REDD program requests and receives the various assistance from donors, so a mechanism to coordinating donors was set up with the development of donor map to mobilize donor support and avoid overlaps.

Technical capacity building

Regarding technical capacity building, a range of activities and stakeholders were identified. Among the activities are: a study on forest carbon reserves measurement which is implemented by the Government; capacity building for national and local stakeholders by organizing national and regional training courses (UN-REDD); capacity building on Monitoring and Evaluation; an FAO-supported national forest survey from 1991 in the context of climate change; establishment of Forest Sector Monitoring Information System (FOMIS); establishment of a forest fire prevention and information system by the Government supported by Finland; determination of forest carbon reserves measures, supported by GTZ, SNV, AusAID, USAID, Finland; a study on a REDD benefit sharing system; preparation

for international negotiations and presentation of results of the UN-REDD programme in Vietnam, at COP 15 (Copenhagen, 2009) and further international negotiation sessions.

Vietnam is actively participating in international REDD initiatives such as FCPF (Forest Carbon Partnership Facility) and UN-REDD. The main activities for REDD implementation have been capacity building for Afforestation and Reforestation Clean Development Mechanism (AR-CDM) and analysis of forest area changes.

Vietnamese Government investments related to REDD

The financial investments of the Vietnam government relating to REDD are as follows: Forestry land allocation and leasing 2007-2010 (US$45 million); National environment monitoring system, including establishment of satellite reception station re land (EUR20 million); Development of forestry land cadastral maps ($20 million); Region based forest re-planning and classification (VND76 billion, $4.5 million); five million hectare Forest Plantation (Program 661) (VND4.515 billion, $252.6 million or $50.5 million/year); Mangrove forest recovery and development 2008-2015 ($125 million); Policy of sustainable sloping agriculture 2008-2012 ($27 million and 315.500 tons of rice); National Forest Inventory Monitoring and Assessment Program (NFIMAP) implemented during five years since 1991 and funded about 10 millions for one phase; National forest information, monitoring and assessment system ($5 million).

Coordination of supported activities among donors and partnership during REDD implementation

The REDD working group holds monthly meetings to discuss action plans. The national REDD working group is led and coordinated by the Department of Forestry in cooperation with the FSSP, which also lead and coordinate a national UN-REDD programme network. Stakeholders in the National REDD working group are Department of Forestry, Lam Dong province Department of Agriculture and Rural Development (the province is piloting both REDD and PES programs), donors, INGOs, Viet-

namese NGOs (VNGOs) and civil society organizations (CSOs) on climate change. The network meets every three months.

Coordination among donors and partners is done through activities such as donor meetings and national and regional workshops and training so as to develop the donor matrix and mobilize donor support to avoid overlap. These activities also provide venue for discussing and coordinating special support from international projects including the GTZ SFM Programme, ADB-FLITCH, Finland, ARBCP. Donors/Ambassadors have established a forum on Climate Change and there is also an INGO network on Climate Change.

Many activities are given support from various organizations and entities. For example, Japan is the source for funding for the studies titled "Applying Remote Sensing (RS) to assess C reserves and change" and "Potential land resources assessment for Afforestation and Reforestation Clean Development Management (A/R CDM) and REDD in Vietnam." The Ford Foundation funds a partnership between public sector and private sector on climate change. International agencies help to improve people's awareness via mass media and online forums on environment and in the development of international negotiation capacity on climate change. Techniques for defining Reference Emission Line (REL) are funded by the Government of Finland; Switzerland supports a study on measuring greenhouse gas emissions from land use change and deforestation in the North-West through the Ministry of Science and Technology (MOST). Some projects relating to REDD are implemented by GTZ. These include a biodiversity conservation project including REDD component; and two (2) technical support projects—a mangroves project in Kien Giang and one sustainable natural resources management in Dak Nong. The project REDD ALERT is implemented by FSIV; a pipeline research project is done by a group of German Universities (EC funded); the World Bank's Forest Carbon Partnership Facility ($200,000) is implemented by the Government in association with the UN-REDD programme, to develop a detailed REDD implementation plan. The ICP project funded by TFF and Finland focuses on developing forestry information system including a component relating to REDD, a research titled "Study on forest and forestry land potentiality

used in forest and climate change programs in Vietnam" funded by the government of Japan.

Communication, sharing and learning ensue during the workshops, meetings conducted and disseminated through email by the UN-REDD network. For example, consultation meetings are organized to discuss the COP 15 report and to establish a suitable plan to develop Reference Emission Level (REL) in Vietnam. Consultations are done in line with the project "Poverty Reduction in REDD–REDD pro-poor" and to assess the carbon market in REDD projects proposed by SNV. Before COP 15, consultation meetings to prepare the report of Vietnam were held to consult with partners. After COP 15, some planned activities were implemented for piloting in Lam Dong province

Activities implemented by NGOs and companies

The UN-REDD Program is implemented parallel with other organizations' projects. Activities of the main projects and programmes relating to REDD implemented by NGOs and companies can be summarized as follows:

- WWF and SNV are establishing a REDD model in Cat Tien National Park; ICRAF Vietnam implements some projects relating to REDD, funded by NORAD, including negotiation capacity building (Vietnam and Region);
- Voluntary carbon generated from German companies' initiative and implemented in Quang Ninh, Kon Tum and Lam Dong provinces;
- A four-year project implemented by CIFOR focuses on REDD pilot and communication. This is a global project wherein Vietnam takes part;
- A global project focusing on defining land carbon reserves funded by NORAD and implemented by SNV.

During REDD implementation, several advantages and prospects have been identified such as high commitment of the Government to REDD development and implementation and cooperation and attention from many organizations. For instance, support is available from programmes and strategies such as

the NTP-RCC, PES. REDD supplements the PES policy, creates a benefit sharing mechanism, reduces greenhouse gas emissions and will ultimately make major contributions to biodiversity conservation and improvement of livelihood for local people.

Some limitations and challenges were also identified. For example, REDD requires a high level of forest management, so it is necessary to check and complete policies and institutions. REDD requires effective cooperation between government agencies and projects/programmes. At the moment, organizations implementing REDD lack technical capacity for collecting, analyzing, and reporting information and data related to forest carbon, especially at the local level. There is a lack of financial resources while the budget requirements for REDD implementation is high (i.e., $13.7 to $92 million for 5 years). Financial resources are currently not sufficient to influence drivers of deforestation and forest degradation.

The UN-REDD Program Vietnam (2009-2010)

Key information about UN-REDD

The overall objective of the UN-REDD Programme in Vietnam is to support the Government in developing an effective REDD implementation mode and contributing to reducing greenhouse gas emissions and climate change in the region and all over the world. REDD activities must be mainstreamed into district land use plans. A participatory forest carbon reserves inventory and monitoring method must be set up to involve individuals, agencies and organizations to whom forests are transferred and a transparent and equal payment and benefit sharing mechanism drafted. In addition, awareness about REDD of local people and staff must be improved.

At provincial, district and commune levels, the UN-REDD Programme supports capacity building for departments and agencies, integrating REDD implementation in land use plan, improving staff's and local people's awareness on the role of forests and REDD. The Program will give priority to conduct piloting activities in Lam Dong. A result-based management and planning approach is applied in order to ensure timely mobili-

zation of necessary resources and appropriate, concrete results. The Programme applies a participatory approach.

Gender equity is one of the program principles. Women's participation must be ensured in planning and decision making on sustainable natural resources protection and development. This is a big challenge because women are particularly affected by climate change; they comprise a large chunk of the poor population and they are comparatively more dependent on forest resources. Gender equity is a very important issue of sustainable development and gender, especially women's participation, must be mainstreamed in all areas of the UN-REDD Programme. Criteria have been set to ensure that the Programme addresses this concern. These include stipulations which require that: i) at least 30 per cent women participate in capacity building activities organized by the Programme, including workshops, trainings and study tours; ii) gender balance among trainers, trainees and experts in trainings is ensured; iii) gender issues in capacity building are mainstreamed; iv) gender issues in communication activities and information sessions are also mainstreamed in activities conducted by the Programme.

Ethnic minorities are important stakeholders in REDD as they are greatly dependent on natural forests for their livelihood. Tenure rights on forest and forestry land are critical for them to be able to make contributions to more sustainable forest management and monitoring of the state of the forest ecosystem. This is most valid for minority groups with a long history of association with a particular forest, rather than migrant ethnic communities such as those from the depleted forest regions of the Northern to Central highland. Thus far, the Government has paid great attention to the rights of ethnic minorities to forest and forestry land as evidenced by the nationwide policy on forest and forestry land allocation, and the Prime Minister's Decision 304/2005-QD-TTg of 23/11/2005 on forestry land allocation to individual households and ethnic minorities' communities in Central Highland. Resolution 30a/2008/NQ-CP has a special article which ensures that the tenure rights of ethnic minorities to forestry land are respected and properly implemented. Through the employment of Free, Prior and Informed Consent (FPIC) mechanisms, communities in Di Linh and Lam

Ha district really participated in the implementation process of the UN-REDD Programme in Vietnam. As a result, the guidelines identified in the "UN-REDD Programme Operational Guidance: Engagement of ethnic minority and other forest dependent communities" report will be followed.

Partners of UN-REDD Vietnam

The partners of UN-REDD Vietnam include the MARD, the Department of Forestry, MONRE, MOF, and other state management agencies, the Forest Sector Support Programme (FSSP); DARDs and other provincial and district departments in Lam Dong and Dak Nong, as well as bilateral funding organizations which include the Norwegian government which is the primary funding entity, the World Bank Forest Carbon Partnership Facility (FCPF), the Forest Inventory and Planning Institute, the Forest Science Institute of Vietnam, NGOs and CSOs.

Coordination among relevant organizations in Vietnam

There is a cooperation mechanism between MARD and relevant Ministries, departments and provinces, as well as between Vietnam's partners and international partners. Because REDD is a new and complicated issue relating to many Ministries, departments in land and forest management, socio-economic development and poverty reduction, there should be coordination mechanism to oversee the REDD implementation program. This task generally lies with the Department of Forestry, the REDD focal agency of MARD. This requires participation of all stakeholders, especially ethnic minorities and poor people living in and near forests since they play a decisive role in the success of REDD.

With support from UNDP, MARD also established the national REDD "working group" which has been led by representatives of DoF and co-chaired by representatives of donors. DoF has been developing the ToR (Terms of Reference) for "sub technical working group" on REDD. The working group consists of national and international partners and is led by the national offices or by a representative of international organizations or international projects. The working group leader cooperates

closely with the standing office of the Steering Committee for Climate Change (OCCA; in MARD) and the FSSP coordination office (FSSP CO). The establishment of the REDD working group is essential to ensure smooth implementation of capacity building, management and facilities to be ready for REDD implementation. However, there is also coordination capacity among other agencies, organizations and programs in the forestry sector through FSSP. NGOs who work directly with ethnic minorities can be members of the REDD network; they can voice the concern and interests of ethnic minorities and support the rights of ethnic minorities. Ethnic minorities participate in the activities at grassroots level as designed by the UN-REDD Programme, in workshops and meetings on FPIC, and such activities are evaluated by independent evaluators in order to glean lessons from these interactions.

UN-REDD implementation

Implementation of the UN-REDD Programme Vietnam

The details of implementation of the UN-REDD Programme in Vietnam are presented in Annex 6. As per the design, the ethnic minorities will participate in the pilots in two districts in Lam Dong province based on FPIC principles. By joining the UN-REDD network, VNGOs are given a venue to participate and contribute to discussions, and implement REDD projects at the grassroots level as well.

Implementation of the UN-REDD Programme in 2010

In terms of institutional aspects, some activities have taken place such as improving networking on REDD and developing a sub-department on technical and core issues; facilitating the participation of local communities (Free, Prior and Informed Consent - FPIC); participation in the formulation of a Resolution on payment for environmental service; piloting the REDD payment system and capacity building, especially on international negotiation skills. Some technical activities are being implemented such as development of the Reference Emission Level in line with survey activities, monitoring and evaluation the forestry resources and design of the MRV system. To address the finan-

cial issues, a proposal to seek funding to complete the capacity building and set the stage for the continuation of the pilot period of REDD into lasting programs and projects will be drafted. This, in cognizance of the need to seek support from an arrange meetings with donors and to improve discussions and organize the bilateral and multilateral meetings.

RELATED ISSUES AND CHALLENGES

Traditional Forest Management Systems

With the division of forestry land into three types (specific use, protected and production forest) and forestry land allocation to different users, the customary management systems have been disturbed. Communities themselves no longer care about forest in general, but about their own production forests that have been allocated to each household. Ethnic minority communities have not yet cooperated to protect common forests, as their efforts now focus on just on their own forest areas. Recently, government issued policies in order to restore community-based forest and sacred forest management, but implementation of these policies is slow and only applied well in small areas. According to the General Department of Forestry, in 2010 the forestry land allocated to communities is only one per cent. The restoration of community forest management is not easy when the community linkages are weak or not maintained.

With the change in forest management structure, customary law cannot be used to prevent deforestation and uncontrolled exploitation in the unallocated forestry lands under the management of People Committees. The same is the case with specific use forestry land and protected forestry land under the management of the Forest Ranger Departments. The forest protection group, fire group, or the traditional regulations of communities have not been maintained or restored, even as the government now has guidelines and policies that encourage their use.

REDD can be a motivation for better community linkages/ cooperation as was common traditionally, and communities' concern related to forest may be properly addressed if the members have opportunities to participate in the REDD design and implementation process, and when they can access forestry land and create income from REDD.

Ethnic Minorities and Forest Protection

According to the law, the forestry land allocated to households for reforestation and afforestation are to be managed and used for 50 years. Such land is considered by ethnic minorities as their asset and as such, they are willing to protect it.

Regarding the protected and special use forest and the unallocated forestry land that is under the management of the commune authorities, many ethnic minority people do not get involved in protection as they do not feel that they are responsible for these lands. Although individuals may realize that it is necessary to protect these forests, they do not do so because traditional community cooperation is not strong enough and may lack the leadership of a "nuclear person." Weak enforcement is one of the reasons why people do not get involved in or why they ignore or fail to be involved in forest protection.

Policies for safeguarding the protection forests are not fully appreciated by the ethnic minorities. For example, although Decree 178 and the long-term contract with the Forest Management Board to guard the protected forests opens up many possible advantages, it is not fully understood by the local people. Further, the lack of dialogue on the policy has hindered the effectiveness of the decree's implementation. Rather than creating a participatory milieu, failures in implementation have led to feelings of alienation on the part of the local people who feel that they are "hired workers" with a short-term contract, rather than active participants in the protection of the forests which they own. Consequently, local people have not taken the full advantages of the policies, the forest has not been protected well by the local people and the illegal logging persists.

Traditional Forest Customs

The new land laws have been implemented for several years, and the forestry land was allocated to different and separate land users, which leads to an unfavorable environment for applying the customary laws.

In reality, there is currently not much motivation to promote the customary laws for forest protection. The current laws and practices have led to the abandonment of customary laws and the years of neglect by the local people and community have made these laws difficult to revive and restore.

Although the policies/laws promote the forestry land management, there are insufficient mechanisms and institutions to ensure people's access to policies. There is also a lack of support to facilitate cooperation within communities. All of the above issues hinder communities in promoting the customary law based forest management.

Moreover, there is the misunderstanding between the two concepts of "cultural value conservation" and "superstition abortion." This leads to removal not only of unsound customs but also the traditional spirit culture value. Customary law relating to forest protection is slowly eroding and becoming more and more neglected. The administrative management system has been implemented for years and has become familiar to people, and local people, especially the younger generation who no longer seem to care, no longer heed the customary laws. Time, an effective approach, and the right actors are needed to encourage people to restore and apply their customary laws to forest management.

Forest Change Impacts on Ethnic Minorities

There is an increasing trend of over-exploitation of the unallocated production forestry land, the protected and specific use forest by ethnic minorities, who for example, overharvest herbal plants and overhunt wild animals. People are ill-informed on biodiversity and sustainable forest management and are of the mindset that: "if I do not take it, the others will." Not only

the local people, but the commune and village officers as well, lack awareness of the dangers of losing biodiversity. Consequently, many species of flora and fauna have been lost. Currently, reliance on the forest alone is not enough for the ethnic minority groups in northern and central mountainous areas to survive.

The production forestry land allocated to households and communities currently totals 29.9 per cent (in 2010), 28.6 per cent and 1.3 per cent respectively, indicative of participation of local people in forest management. Lands which have been allocated to the different households are not adjacent to each other and as such, owners cannot participate in collective efforts for forest protection. There have been the national forest plantation programmes since 1985 but the planted forest area is not as large as intended; thus, it is sufficient to be able to generate a significant income for the local people. Reasons for slow expansion of forest land may be attributed to two reasons: 1) the low quality of seedlings provided by the programmes; and 2) poor cooperation among villagers in the reforestation and protection of the forest.

In the case of production forests, the regulations are not easy for ethnic minority people to follow. For example, the legal procedure on harvesting forest products requires many documents that the local people are not familiar with. Therefore, they often harvest timber without any permission, and, in the hurry to sell quickly, they fail to get good prices for the wood.

Because of the lack of technical skill and knowledge of sustainable practices, reforestation efforts fall short of target. For example, the forest is planted to only kind of tree, which are all cut down, clearing the forest during harvest season. More seriously, the illegal loggers, in their pursuit of larger trees to cut down, destroy even larger areas of forest.

Forests and Traditional Culture, Livelihoods and Social Relations

The festivals and legends relating to forest protection and use have faded away as the years passed and the rules and customary laws have been lost with them. Importantly, the forest has lost its spiritual value and is now more prone to destruction by humans. At present, forest is no longer the main living source of forest dwellers. Most natural forest has become degraded and has a hard time recovering after being subjected to exploitative practices. The new cultivation techniques have totally replaced the traditional ones. Modern technology has increased the incidence of soil erosion. Because of forest degradation and deforestation, local people suffer from severe flash floods, landslides, heavy rain, drought, and other extreme weather conditions. These, in turn, rebound negatively on agricultural productivity, resulting in heavy losses for the farmers.

In the past, according to the traditional customs of some groups, the task of selecting which varieties to plant per season rested on the women. The practice has been lost. And although the women contribute significantly to income generation for the family in addition to doing most of the housework, they are still relegated to a status inferior to that of the men.

ANALYSIS

In the forestry and climate change context, Vietnam is promoting participation of the local people in forest protection, poverty reduction and sustainable development. One of the challenges that remain to be addressed is the need for dissemination of information on laws and policies to grassroots people, as this has not been very effective. This is especially true in the case of the ethnic minorities who live in remote areas and have their own languages. To compound the problem, officials often lack skills and resources, and some are not committed to their work, so ethnic minorities find it hard to access information relating to these policies. The forest communities are not yet

fully aware of climate change and REDD. They also do not fully realize the important role of forests for the world and for community life.

The forest people are not capable and have very few opportunities to participate in policy making processes. Because of this, local culture, interests and concerns have not been fully reflected and addressed in policies made. The top-down approach to policy implementation neither encourage participation, nor are themselves feasible or applicable in reality. Consequently, local people cannot take full advantage of policies as intended. The CERDA and CSDM experience in working on climate change and REDD awareness raising on the ground shows that climate change, and especially REDD, is a completely new idea to government staff at district and commune level as well as the local people.

On the other hand, there are no proper mechanisms to ensure local people's participation in public affairs. The local people and local cadres still wait for the guidelines/instructions/circulars from the higher levels. So, they remain in a passive position, do not embark on collective initiatives, and have no opportunity to contribute to decision making and policy implementation in forest protection.

Capacity of Ethnic Minority, Women, Government and Stakeholders in Dealing with Changes and Challenges

In case the forest land tenure for households and communities is clear and legal, the local people are able to protect the forest based on indigenous knowledge and their experience, but at present an effective mechanism is needed for restoring the active cooperation among households within communities, as before. The traditional linkages within communities for protecting forests and natural resources is lost in general, so the legal framework for community cooperation should be well developed and committed and skilful social workers are needed to facilitate and work directly with communities. With such conditions the cooperation within communities can be restored. It

is also noted that the local people also need more information on relevant knowledge and available technologies to augment their traditional knowledge to be able to adapt to climate change and be more prepared for active participation in REDD.

There have been Government policies or programmes on forest protection and development, environmental protection, Biodiversity protection and others but participation of the local community members was poor. In the process of implementation, the local people who are the stakeholders have just been "the objects or passive receivers of the programme" rather than "subjects or actors in the program." Further, because of lack of market promotion activities for forest products, the local stakeholders' interest in forestry policies and the programs which ensue from these is not encouraged.

In cases where local people have legal access to forestry land (i.e., in possession of land use certificates—Red books), factors such as a lack of markets and of cooperation (which existed traditionally) among households are the primary reasons why the communities cannot make significant income from their forests. So a good mechanism to enhance cooperation among villagers and better market access will be help to solve problems and enhance forest sustainability in future.

Moreover, the policy feedback process is has not been very effective and this deficit in input and active participation has been counter-productive. With little, if any, fora and other venues for discussion and exchange of ideas and opinions between the stakeholders and the decision makers. Furthermore, because of this gap in communication, information on various initiatives are not effectively disseminated and as a result, reception given to the policies/programs is not high.

The Role of Ethnic Minorities in Dealing with Climate Change and REDD

Many people realize that natural disasters are becoming worse, with extreme weather conditions like damaging cold, drought and loss of water sources, as well as heavy rains. This affects people's health, reduces animal and plant productivity,

and can cause major losses in livestock, crop, and housing.

The ethnic minorities have accumulated experience through history, but given the present circumstances, traditional knowledge alone cannot effectively address the effects of extreme weather patterns. For instance, because traditional knowledge hinged on sustainable practices which safeguard the environment to forestall extreme events, severe flash floods and landslides leave the ethnic communities vulnerable and unable to fully address these eventualities. Traditional community structures which highlighted the role of elders, which used to be very effective in forest and natural resource management has, unfortunately remained in very few communities despite the government guideline to restore this set-up.

Climate change and REDD are very new to both ethnic minorities and the local staff at district and commune levels, as well as most of the local people, especially the poor and women. Therefore awareness raising on climate change and on REDD is very important and urgent.

RECOMMENDATIONS

REDD is a new idea which requires massive information dissemination during the implementation process. The target group of REDD in Vietnam are the people living in or near forests. These are the most vulnerable groups who nonetheless have limited access to policies and potential resources. These same groups likewise have poor participation in the development process. There are several preconditions to ensure REDD success:

- Forest dwellers, especially ethnic minorities, must be the owner of the programme, not just as passive receivers or beneficiaries of policy projects and mere recipients of support in cash or kind;
- REDD needs a system of good governance and requires the high participation from stakeholders. As such, a top-down approach to management will not be productive

A decentralized and rights-based approach which involves FPIC and MRV (Monitoring, Reporting and Verification) should be institutionalized;

- As originally intended by the policy, production forestry land should be allocated to the local people and communities. Further, their legal rights should likewise be recognized as protectors of forestry land through a contract entered into with the government (District Forest Management Board).

Role of Ethnic Minorities and Their Traditional Knowledge and Forest Management Customary Law with Regard to REDD

Ethnic minorities have been living in and near forest lands for a long time. They depend on the forest for their subsistence by hunting and collecting natural forest products. Ethnic communities and cultures have customary laws to protect forests and forest ecosystems and a policy to restore the customary laws is needed. There is likewise a need to harmonize and coordinate government laws, traditional knowledge and new techniques for REDD implementation. In this way, ethnic minorities can participate in REDD and be active partners in and owners of the REDD process.

Coordination of REDD at the national level

As mentioned above, ethnic minorities who participate in REDD must be the owners of REDD programme for REDD to be successful. Experience has shown that it has not been easy to make ethnic minorities appreciate the programme and see that they can be the real owners of REDD. The process is time consuming and requires a multi-dimensional approach. In this context, it is necessary to assure concrete and effective coordination. Among the central tasks of the government should be to clarify what the government agency system can and cannot do because of lack of financial or human resources. Further, it must clarify the role the NGOs and social organizations must specifically take in the REDD process.

Furthermore, a channel is needed to provide information about the localities that are able to start with REDD, for all government and non-government organizations.

Design of the REDD programme

At the national level

- Before starting REDD, it is necessary to review implementation of forestry land laws at localities to ensure that ethnic minorities are given priority to receive production forestry land, compared with other economic entities, as the policies intended;
- After the piloting phase, REDD should be integrated into the social-economic development plan at all levels, and not just remain as a separate REDD target program;
- REDD policy should be and a financially-independent program which is separate from programs implemented in line with other policies;
- If a fund mechanism is realized, the obligatory conditions must be applied before money transfer. The "package way" funding mechanism should be applied to ensure the duty of each post which must be clarified at the onset;
- Principles such as FPIC, MRV, traditional knowledge, customary laws, as well as a benefit sharing mechanism need to be institutionalized;
- REDD should be decentralized but in the meantime, capacity building for local staff must be undertaken to ensure the existence of effective consultation channels and independent monitoring;
- REDD should mobilize civil society participation at all levels at the earliest stages. Government agencies should be proactive in coordination with them. The focal point of the Ministry of Agriculture and Rural Development—the General Department of Forestry—should actively motivate CSOs/NGOs and join their networks or cre-

ate a platform for these to participate in consultations with the various sectors conducted by Government;

- It is necessary to create channels to share experiences on REDD between government and non government organizations.

At the local level

- Important work that should be done before implementing REDD is to ensure that all people who live in or near forests can have equal access to forestry land and that they are satisfied with the arrangements;
- Community-based organizations and a network to promote cooperation must be established;
- The REDD framework must be designed so as to avoid putting great pressure on ethnic minority communities in the first stages of implementation. For instance, a carbon market mechanism should not be applied to ethnic minority communities at the initial stage because at present there are no mechanisms whereby benefit from carbon markets for their communities is assured. Ethnic minorities are, as yet, "outsiders" in the economic market. The ethnic minorities should be given priorities based on the funded mechanism, especially for capacity building and institutional development. It would be good if the program introduces the concept of carbon markets to villagers to let them get acquainted with it;
- In order to protect forests successfully, effective cooperation within communities is a vital factor. Suitable traditional structures should be incorporated into existing laws. People should be encouraged to set up their own rules for forest protection and be given the responsibility to implement and monitor these;
- In order to work with ethnic minorities, it is necessary to develop teams of actors who are highly committed, skilful, and have the potential and know-how to work with ethnic minority communities to help harmonize selected traditional and new technologies, and government laws with the customary law;

- Training on good governance for key people who join REDD;
- A monitoring mechanism that ensures that community representatives are able to participate in and master the whole process must be made operational. This is considered a mechanism to control corruption;
- Effective and efficient feedback and recourse mechanisms must be developed. A consultation channel at commune level must be made available for the community to ensure a participatory process in formulation of policies that have to do with REDD and other relevant policies;
- Key farmers and/or individuals at village level who are living in the villages must be identified and trained to be "REDD experts" who can act as facilitators for their communities in the REDD process. A network of REDD experts must also be set up to allow venue for cooperation and sharing, and continuous dialogue;
- With the implementation of FPIC activities, institutions which allow local community members to set up and operate the self-payment mechanism among local carbon sellers must be established. In this manner, carbon sellers can pay for local REDD experts at community level when local REDD experts work for them through a mechanism monitored by the local authorities. This is one way to ensure that local communities will directly reap benefits;
- When the market-based mechanism is applied, the representatives of ethnic minorities should be given opportunities to participate equally with all the stakeholders: Carbon buyers–sellers/local community–local authorities.

REDD Implementation

In summary, the implementation of REDD must take into account the following:

- REDD must operate as a community-based organization which promotes collective rights;
- It is necessary to establish REDD working groups at local level with participation of all stakeholders, inclusive of actual members of the communities involved. The tasks of these groups need to be clearly delineated and as detailed as possible to ensure good performance and accountability. Volunteer members must be dedicated and given proper training to ensure that they have the necessary capabilities required by the work lined up for them in relation with REDD;
- During FPIC implementation, the consent (C) should be obtained through democratic discussion among villager at the scale determined by themselves without any interference from outsiders;
- A legal framework which allows the community to build up their own benefit sharing system must be developed. This mechanism should ensure that all forest dwellers occupying different land areas have equal access to REDD resources which must be deployed with transparency consensus within the communities. For example, these can be used to create jobs for landless households and build up a community REDD fund;
- A community fund can be set up to enable the operation of a self-finance system among villagers/carbon sellers at the early stages. This mechanism can subsidize all the relevant costs, including fees for a "REDD community expert" who works for the community and the network;
- There should be a policy to support key farmers/REDD experts to work for their community. This includes capacity building activities such as REDD vocational education; FPIC facilitation skills; organizational development; networking; leadership; coordination, MRV, car-

bon marketing skills and economic accounting on carbon and forestry;

- During REDD implementation, the commune authority, village heads and people need effective and efficient support, instruction and consultation from outsiders. In order to get this to work, there is a strong need for committed and skilful actors who come from government agencies, NGOs and civil society organizations to work directly with local commune and village cadres and the community.

Networking

Based on traditional culture, networks of CBOs, CSOs must and platforms for dialogue between people and decision makers for sharing information, experience, and for collaboration in REDD implementation (forest protection and carbon selling) must be put in place.

Technique, market and information access

There should be special policies to support and operate information systems which will see to the dissemination of full and accurate information on REDD, inclusive of techniques, market information for ethnic minorities to have easy access to these.

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Annexes

Annex 1: Laws and policies on forest use, protection and management

- Forest Protection and Development Act (2004) and Decree No. 23/2006/NĐ-CP dated 3 March 2006 by the Government about guidelines on the implementation of Forest Protection and Development Act: Improving state forest management validity, preventing deforestation, enhancing responsibilities and promoting organizations and individuals in forest protection, and strengthening forests' benefits in the country development and security;
- Environmental Protection Act (2005) – Regulations on environmental protection activities; policies, measures and sources for environmental protection; rights and responsibilities of organizations, households, individuals in environmental protection;
- Biodiversity Act (2008) - Regulations on biodiversity reservation and development; rights and responsibilities of organizations, households, individuals in biodiversity reservation and development;
- National Forest Development Strategy (2006-2020) approved in Decision No. 18/2007/QĐ-TTg dated 5 February 2007 with the goal of "Establish, manage, protect, develop and use 16.24 million ha of planned forestry land; increase afforested area to 42-43 per cent by strengthening afforestation; increase their contributions to socio-economic development, environmental protection, biodiversity conservation and environmental services supply, to reduce poverty and improve the livelihoods of rural mountainous people, and to contribute to national defence and security";

- Decision No. 186/2006/QĐ-TTg dated 14 November 2006 by Prime Minister on the issue of forest management regulation;
- Decision No. 661/QĐ-TTg dated 29 July 1998 by Prime Minister on goals, responsibilities, policies and implementation of 5-ha afforestation project;
- Decision No. 100/2007/QĐ-TTg dated 6 July 2007 by Prime Minister on amendments of some articles in the Decision No. 661/QĐ-TTg dated 29 July 1998 on goals, responsibilities, policies and implementation of 5-ha afforestation project;
- Decision No. 304/2005/QĐ-TTg dated 23 November 2005 by Prime Minister on forest land allocation, presumptive forest protection to households and communities of ethnic minorities in the Highlands;
- Decision No. 186/2006/QĐ-TTg dated 14 August 2006 by Prime Minister on the issue of forest management regulation.

Programs for forest recovery implemented in Vietnam.

- PAM Program (1976 – 2000): The program started in 1975, focusing on afforestation, irrigation system and health care. Forest plantation project started in 2000 and provided food, facilities and materials to plant 450,000 ha; constructed forest path; established fire precaution and extinguishment groups and improved forestry extension service quality. According to Vietnam Government's evaluation, the program created jobs, improved livelihoods and gender equity;
- Program 327 (1993-1998): The program focused on bare hill afforestation, including protecting existing forest area, modified natural forests and newly-planted forests. In 1994, the Program was adjusted and shifted their focus to forest protection in key regions and at places of deforestation, mainly in the North and Central Highlands. The Program conducted main activities such as resettlement and bare land plantation in mountainous areas and the Central. From 1996 to 1998, the Program was scale-reduced to forest protection and plantation in specialized forest through natural regeneration and afforestation;

- The Program 5 million forest ha (1998-2010) – This is adjusted Program 327 ratified by National Assembly in 1997 and implemented according to Decision No. 661/QĐ-TT dated 29 July 1998. The Program focused on increasing nationwide forest coverage to 43 per cent;
- Decision No. 106/ 2006/QĐ-BNN dated 27 November 2006 issuing "Guidelines on village community forest management," piloted in 40 communes in 10 selected provinces within the "Pilot program of community forestry in 2006-2007," encouraging "sustainable forest management and biodiversity conservation to attain the results of a) environmental protection, b) improving living standard of people living on forests, and c) enhancing contribution of forestry in the national economy";
- Decision No. 147/2007/QĐ-TTg dated 10 September 2007: Policies for production forest development in 2007-2015 with the goals of 1) Planting 2 million ha of production forest with 250 thousand ha every year (including replantation after exploitation); 2) Creating jobs, improving income to stabilize ethnic minorities' lives; 3) Promoting establishment of the sustainable forestry market including providing seedlings, technical services, processing services and forest product trading;
- Program 2945 - "Support to sustainable agriculture and forestry development in the uplands" during the period of 2008-2012. The Program will support people in mountainous areas in agriculture intensive cultivation and by this way reducing cultivation area to create favorable condition and time for poor soil's recovery and forest reservation;
- Decision No. 166/2007/QĐ-TTg dated 30 October 2007 on the issue of policies for investment and benefit support for households, communities and organizations participating in the Forest Livelihoods in the Central Highlands (FLITCH) program. The program aims to improve livelihoods of forest dependent ethnic minorities in the Highlands;
- Decision No. 1641 QĐ/BNN-HTQT dated 5 June 2006 by Minister of MARD on the approval of the project "Community Forestry Pilot during 2006-2007" funded by Forestry Trust Fund and implemented in 40 communes in 10 provinces.

Annex 2: Policies on forest tenure

- Government Resolution No 02/CP, dated 15/4/1994, legalized the forest land allocation to different economic organizations, households and individuals for long-term management and use. This resolution has replaced for the Government Decree No 163/1999/ND-CP, dated 16/11/1999;
- Government Decree No 178/QĐ-TTg, dated 12/11/2001, regulated rights and obligations of households and individual who are allocated or contracted forest and forest land for benefit sharing;
- The Joined Circular No 80/2003/TTLT/BNN-BTC, dated 03/09/2003, between MARD and MOF, which regulated rights and obligations of households and individuals whose forest land areas are allocated and contracted;
- Land Law in 2003 and Law on Forest Protection and Development in 2004;
- Government Decree No 181/2004/NĐ-CP, dated 29/10/2004, which provide legal guidance for the Land Law implementation process;
- Government Decree No 135/2005/NĐ-CP, dated 08/11/2005, on allocation and contracting of forest land for agriculture, forest and aquaculture production areas to state forest enterprises;
- Prime Minister Decision No 304/2005/QĐ-TTg, dated 23/11/2005, on forest land allocation and forest lease to households and ethic minority community who are living at villages of highland area;
- Prime Minister Resolution 38/2005/CT-TTg, dated 05/12/2005, on review and planning for management and protection of three kinds of forest land areas;
- Ministry of Agriculture and Rural Development Decision No 1970/BNN-KL, dated 06/7/2006, regulated public dissemination about the National Forest Update 2005;
- Ministry of Agriculture and Rural Development Circular No 38/2007/TT-BNN, dated 25/4/2007, regulated guidance pro-

cess and procedures to allocate land lease forest land areas to organizations, individuals and community;

- Ministry of Agriculture and Rural Development Decision No 2740-QĐ/BNN-KL, dated 20/9/2007, regarding to allocation and lease of forest land areas for period of 2007-2010 in order to achieve the expectation that there is a total of 12 million ha of forest land will be allocated and leased by households, community, economic organizations until 2010;
- Law on Forest Protection and Development in 2004 legalizes target groups of forest allocation as well as their own rights and obligations to contribute to sustainable forest management and development as follow:
    - Management Boards of Protective Forest or Special forest use,
    - Economic organizations,
    - Households and individuals,
    - Army units located in the forest,
    - Forestry research institutions; forestry science technology centre and other forestry training centre or vocational training centre,
    - The overseas Vietnamese's who have investment projects in Vietnam,
    - The foreigners and international organizations who have investment projects in Vietnam;
- Article 23, Decree 23/2006/NĐ-CP, regulates a limit term for contracting and managing different kinds of forest areas as follows:
    - The state allocates protection forest and special forest use to owners with long-term protection and use,
    - The state contracts and allocates production forest areas that includes natural forest or planting forest to forest users with maximum 50 years. Where forest trees require over 50 years for growth and/or projects invested in the most difficult areas, the contract duration given to forest owners will be maximum 70 years,

- The state contracts and allocate production forest and special forest use to economic organizations with maximum 50 years for ecotourism and resort development.

Annex 3: Vietnam climate change and REDD policies

- Decision No 158/2008/QĐ-TTg, dated 02/12/2008, regulated the National Target Program on climate change adaptation;
- Resolution No 27/NQ-CP (Article 1.c), dated 12/6/200, regulated urgent solutions to strengthen state management on natural resource and environment protection;
- Prime Minister Decision No 18/2007/QĐ-TTg, dated 05/02/2007, regulated National Forestry Development Strategy for period of 2006- 2020;
- Decision No 380/QĐ-TTg, dated 10/4/2008, regulated piloting policy on payment for ecosystem services (PES);
- Decree No 131/2006/NĐ-CP, regulated key issues of common national program on 1) environment protection and natural resource reservation, 2) Institutional capacity building and human resource for research and development.

Annex 4: Policies on climate change

- Decision No 158/2008/QĐ-TTg, dated 2/12/2008, on National Target Program on Climate change coping and adaptation in the period of 2009-2015 (NTP/CCR) with nine specific tasks and solutions. The objective of NTP/CCR is to assess the level of impact of climate change to different areas and locations in order to develop the adaptation action-plan for both short-term and long-term periods, in order to ensure the sustainable development of the country and take full advantage of development opportunity of economy towards low carbon emission and active participate into climate change adaptation and mitigation efforts of international community;

- Prime Minister Decree No 380/2008/QĐ-TTg, dated 10/4/2008, on Payment for Ecosystem Service policy and piloting PES models in Lam Dong and Son La province which focus on water source control; reduce land eroding and ecology-tourism. The main objective of the piloting PES project is to strengthen market opportunity to enable payment ecosystem services; ensure the sustainability of financial resource for ecosystem reservation; raising awareness of community on value of ecosystems; improved livelihood condition and quality life standard for local people, attribute to social development;.
- Governmental Resolution No 27/NQ-CP (Article 1.c), dated 12/6/2009, on urgent solutions to water resource management and environment protection;
- Decision No 18/2007/QĐ-TTg , on National strategy on forestry development for period of 2006-2020 (Program 1: sustainable forest management);
- Decree 131/2006/NĐ-CP (chapter 3, article 3), on key priorities of common programs which focus on some areas such as environment protection and natural resource management; and Institutional capacity building and human resource for research and development;
- Decision No 172/2007/QĐ-TTg, dated 16/11/2007, on national target program on climate change adaptation and mitigation till 2020. The objective of the program is to mobilize diversify resources to enable common efforts for disaster risk reduction, natural resource management and environment protection from now to the end 2020 to contribute to sustainable socio-economic development of the country;
- Decision No 2730/QĐ-BNN-KHCN, dated 5/9/2008, on Action Framework on climate change adaptation and mitigation for period of 2008-2020 which contributes much to improvement of capacity of climate change adaptation and mitigation as well as ensure of sustainable development in the agriculture and rural areas. Key objectives of this framework are to help to secure livelihood conditions and sustainable production for communities at the high risk regions such as Mekong delta and Northern central area, central area and mountainous areas. In addition, the framework also helps to

ensure that cultivation land is able to be used twice per year. It also helps to protect irrigation system and other socio-economic infrastructure system;

- Decision No 1002/QĐ-TTg; dated 13/07/2009, on community-based disaster risk management. The objective of this project is to increase awareness of community to better organize the CBDRM models for all levels, especially commune and village level in order to minimize the negative affects to the natural resource, environment, and culture heritage in order to contribute to sustainable development of the country;
- Governmental resolution No 60/2007/NQ-CP, dated 03/12/2007, on national target program on climate change adaptation and mitigation. The objective of this program is to call support from international community to provide support for this program.

Annex 5: REDD policy

The target group of many forestry development programs is ethnic minority groups. Beside of some program mentioned above, there are many poverty reduction programs have been conducted for the ethnic minority groups, for example:

- Prime Mister Decision No 07/2006/QĐ-TTg, dated 10/01/2006, on improvement of socio-economic development program for poorest communes of ethnic minority people in the period of 2006 – 2010;
- The Forest and Livelihood Improvement Program in the Central Highland (FLITCH). The program helps to improve the livelihood conditions for ethnic minority people whose live depends on forest in the central highland areas;
- Decision No 2945-QD-BNN-KL, dated 5/10/2007, on forestry and agriculture development at mountainous areas from 2008 – 2012. This program provides support to the ethnic minority people in mountainous areas through support for the extensive agriculture production in order to prevent forest deforestation;
- The Governmental Resolution No 30a/2008/NQ-CP, dated 27/12/2008, on rapid and sustainable poverty alleviation in

61 poorest districts (most of them are located in the mountainous areas). The resolution mandates that the all aspects of life of every ethnic minority poor households in this area will be improved rapidly and sustainable. The program provides support to agriculture and forest development which follow the sustainable and market oriented strategy, change of production structure to ensure quality and effectiveness; protect culture identity for the ethnic minority groups and raising awareness of environment protection and national security;

Main REDD Activities

- *Capacity building for Afforestation and Reforestation Clean Development Mechanism (AR-CDM):* This activity was funded by JICA and implemented from 2006 to 2008. Stakeholders consisted Department of Forestry, Forest Science Institute of Vietnam (FSIV), Vietnam Forestry University (VFU); Cao Phong District People's Committee. Activities included i) Improving awareness and providing training courses to stakeholders (from national to provincial levels, university); ii) compiling Guidebook on the implementation of the project AR CDM; iii) developing small scale AR CDM projects;
- *Analysis of project area change:* This activity was funded by JICA and implemented in 2007-2008. Department of Forestry, Forest Science Institute of Vietnam (FSIV), Vietnam Forestry University (VFU) was its stakeholders. Main activities were i) developing assessment method of forest area change to support the REDD Program implementation in Vietnam; ii) Analysing forest area change in the Central Highlands; iii) Using remote sensing and GIS technique;
- *REDD-ALERT* is supported by EU and guided by Macaulay (UK) and implemented in the period of 2009-2010. Research Centre for Forest Ecology and Environment (RCFEE), ICRAF Vietnam, Department of Forestry, Forest Science Institute of Vietnam, and Forest Inventory Planning Institute participate as stakeholders. REDD-ALERT conducts activities of: 1) Studying and finding drivers in land use change; ii) Defining quantity and monitoring land use change; iii) Measuring emission quantity from land use change; iv) Making recommendations to settle tropical forest degradation; v) Developing REDD negotiation support system.

Annex 6: Vietnam UN-REDD program

Overall objective: Support the Government of Vietnam in developing an effective REDD implementation mode and contributing to reducing greenhouse gas emission and climate change in the region and all over the world.

Specific objective: Improve technical and institutional capacity of relevant agencies under the MARD at national and local levels so that till the end of 2012 Vietnam will be ready for REDD implementation and contribute to reducing emission from deforestation and forest degradation.

Expected results and indicators: To attain the objectives, the common Program will produce three major results with detailed outputs as follows:

Result 1: Technical and institutional capacity to manage and facilitate REDD activities at national level (MARD) is improved:

- *Output 1.1:* Propose cooperation mechanism between MARD and other Ministries, departments and relevant provinces in REDD management and implementation;
- *Output 1.2:* Scenario draft of REDD implementation;
- *Output 1.3:* Draft of REDD Action Plan of MARD to implement successfully NTP-RCC and APF of MARD;
- *Output 1.4:* Draft of Decree on payment and benefit sharing policy in REDD implementation from national to local levels mainstreaming in Payment for Environmental Services policy;
- *Output 1.5:* Documents and publications on REDD implementation experience sharing with regional and international countries.

Result 2: Mainstream REDD activities in to district land use plan; People's awareness and REDD implementation capacity at provincial, district and communal levels are improved.

- *Output 2.1*: Mainstream REDD implementation potentiality in district land use plan;
- *Output 2.2*: Participatory forest carbon reserves inventory and monitoring method with the participation of individuals, agencies and organizations transferred forests;

- *Output 2.3*: Draft of transparent and equal payment and benefit sharing mechanism;
- *Output 2.4*: Awareness about REDD of local people and staff is improved.

Result 3: Cooperation, exchange of information and experiences of REDD implementation with Mekong River region are established, first four countries selected to join FCPF (Vietnam, Lao, Cambodia, and Thailand)

- *Output 3.1*: Analyze and quantify risk of carbon emission location shifting in the region;
- *Output 3.2:* Propose dialogue and information exchange mechanism among countries in the region on REDD implementation;
- *Output 3.3*: Assess situation and propose cooperation enhancing mechanism between Vietnam and countries in the region in order to prevent illegal timber exploitation, transportation and trading across border.

Overall strategy and approach

The Program mainly works with agencies responsible for forest management under the MARD, especially Department of Forestry, Department of Forest Management and in provinces. The leading organization of the Program implementation together with FAO, UNDP and UNEP cooperates closely with Steering Committee of NTP-RCC and National Office for Climate Change and Ozone Protection (NOCCOP).

National activities focus on capacity building for departments, units and staff to help MARD develop the feasible and effective REDD Program, including state management agencies (Department of Forestry, Department of Forest Management, …) and forestry research and technical support units (Forest Inventory and Planning Institute, Forest Science Institute of Vietnam, …) through trainings and equipment provision. In the future, the UN-REDD Program implementation will allow selling verified carbon credits and ensure transparent and equal benefit sharing between the Government and stakeholders in forest protection and management. The Program will coordinate closely with the implementation of piloted payment for environmental services policy according to Decision No. 380/QĐ-TTg and programs, projects in forest protection, management and development sector to promote

effective implementation. Results of REDD implementation in Vietnam will contribute to international experiences and efforts relating to REDD. Therefore, knowledge sharing and awareness raising will be important activities in the common Program.

At provincial, district and communal levels, the Program support capacity building for departments and agencies, integrating the REDD implementation in land use plan, improving staff's and local people's awareness on the role of forests and REDD. The Program will give priority to conduct piloting activities in Lam Dong.

Result-based management and planning approach is applied during the Program implementation in order to ensure timely mobilization of necessary resources. The best national and international organizations and consultants in natural resources management are invited to implement the Program. Partner approach will be used to ensure effective coordination of donors' support for the Government. Besides, the Programme applies participatory approach, ensuring the participation of women to be from 30 per cent.

Quarter and annual work plans are main assessment tools and will be paid special attention to implement the Program. Participation of stakeholders reinforces the sustainable development. The Program will cooperate closely with other stakeholders such as Fatherland Front and media.

Gender Equity: Women's participation in planning and decision making process in sustainable natural resources protection and development is a big challenge. It is because women are easily affected by climate change; they are representative for most of poor people in the world; and they depend more on forest resources. Hence, gender equity is a very important issue of sustainable development and need mainstreaming in all contents of the Program, especially women's participation in decision making. Criteria will be developed to ensure that the Program comply gender equity in all activities. These criteria include: i) At least 30 per cent women participate in training activities organized by the Program, including workshops, trainings and study tours; ii) Ensuring gender equity among trainers, trainees in trainings and experts; iii) Mainstreaming gender issues in capacity building; iv) Mainstreaming gender issues in communication activities and information sessions conducted by the Programme.

UN-REDD Programme design

Main points in the UN-REDD Program Vietnam design – "Reducing Emission from Deforestation and Forest Degradation in Vietnam" (hereinafter called the Program) can be summarized as follows:

2.2.1. *Selection of piloting area*. After APF was promulgated, under guidance of the MARD, Department of Forestry cooperated with internal and external agencies to promptly develop proposal for international resources mobilization for REDD activities and selected piloting area. According to statistics provided by the MARD, Lam Dong is one of provinces which have biggest natural forest area countrywide and face complicated deforestation and forest degradation in the past years. Besides, Lam Dong is the place of piloted payment for environmental services policy basing on Decision No. 380/QĐ-TTg dated 10th April, 2008 by the Prime Minister with the support of USAID through Winrock International. In January, 2009, the MARD assigned a mission together with representative from the Government of Norway, experts from FAO, UNDP and UNEP to work with Lam Dong provincial People's Committee and departments for cooperation in the Program development and implementation in the province. The MARD, UNDP, UNEP and FAO also worked with some donors (WB, GTZ, JICA, ...) and provinces (Dac Nong, Kien Giang, Bac Lieu, Quang Binh, Hoa Binh, Son La and Bac Can) on the possibility of mainstreaming REDD activities in some economic and ecological areas in order to improve the Program's effect and ensured to provide an overall REDD implementation capacity in Vietnam after the end of phase 1.

2.2.2. *Development of the UN-REDD Program proposal*. The MARD submitted the common Program proposal to the UN-REDD Program through UN representative office in Vietnam. On 10th March, 2009 the MARD's proposal was approved by the steering committee of the UN-REDD Program and Vietnam became one of the first nine countries selected to participate in this program.

2.2.3. *Development of detailed UN-REDD Program*: The UN-REDD Program belongs to the NTP-RCC and APF of the MARD. During the proposal development, Department of Forestry and experts consulted with Ministries, departments and relevant provinces. The MARD promoted the establishment of REDD working group with the participation of governmental agencies, donors, enterprises and NGOs in order to support technically the APF steering committee on REDD activity development and implementation. During the Program implementation, Department of Forestry will coordinate with internal and external units, especially Ministry of Natural Resources and Environment (MONRE) – the national key organization in UNFCCC an NTP-RCC implementation, People's Committee of two selected provinces to ensure the agreement with NTP-RCC and APF as well as promote the Program's effectiveness.

The UN-REDD Program Vietnam is implemented in 20 months, starting in September, 2009. The Program is funded by UN. Stakeholders include the MARD (Department of Forestry), MONRE, Ministry of Planning and Investment (MPI), Ministry of Finance (MoF) and FSSP.

Program monitoring, evaluation and report

Logical framework matrix describes expected results (Objectives, results and outputs) of the Program together with quantitative indicators and attained objectives. Logical framework matrix also describes verification tools and possible risks and assumption relating to each result. The summarized table defines responsibility of FAO, UNDP, UNEP and key implementation agencies for every result and output.

This common program's duration is estimated 20 months to support Vietnam in capacity building and awareness raising at different levels for them to be ready for REDD implementation in 2012. Therefore, the Program will not conduct any assessment and most of criteria are about progress and only assessed one time. Common Program monitoring framework is developed basing on re-arrangement of indicators in logical framework matrix.

Risk monitoring: In periodical meeting, Program Implementation Board (PIB) will sum up partially according to risk framework; in case of any risk PIB defines situation or possibility or need adjusting impact score system, PIB will propose whether it should be maintained or adjusted immediate responding solutions. Adjusted risk framework will be submitted to FAO, UNDP, UNEP as soon as possible after PIB meeting.

Periodical and annual review and evaluation. UN-REDD secretary department develop evaluation plan to ensure every general programs implementing in Vietnam and other pilot countries which received support from UN-REDD will have the final evaluation to evaluate the connection, effective of support activities, impact evaluation of outputs base on the baseline survey and indicator mentioned on program development process. UN-REDD secretary department will chair all midterm evaluation and topic evaluation of programs.

Periodical and annual report. At national level, FAO, UNDP and UNEP will report the output, lesson learnt and contribution to program. The report will then add to 6-month report by Program Management Board. UN-REDD secretary department will update the program implementation process every six months to Policy Department based on report of each country. For better management, monitoring and evaluation, three UN organs and the Program Manager Board will use

the same report format. UN Resident Coordinator will ensure UN representative offices in Vietnam provide required information. UN-REDD Coordination team will collaborate with officers, representatives of FAO, UNDP and UNEP in activities implementation.

All UN related organs (FAO, UNDP and UNEP) who receive fund from UN-REDD will report and provide material for Management Board.

Implementation of the UN-REDD Programme Vietnam

- Organization and consultation
    - Developing national REDD program route and framework;
    - Establishing national REDD network with the participation of national and local governmental agencies, donors, embassies, FSSP, ODA programs of the same concern, research institutes, universities, INGOs and VNGOs;
    - REDD technical support group with the participation of Department of Forestry (leading), donors, research institutes and INGOs;
    - Starting the UN-REDD Program Vietnam;
    - Cooperation between UN-REDD and Forest Carbon Partnership Facility (FCPC);
- Preparation for REDD strategy
    - Conducting study on benefit sharing;
    - REDD's impacts on sustainable development and poverty reduction: choices for equality, growth and environment;
- Development of reference scenario
    - Developing national REDD implementation potentiality map;
    - Conducting study on land and forest potentiality used for the goal of reducing impacts of climate change;

- Compiling available data;

- Design of monitoring system
  - Enhancing national capacity in forest monitoring and assessment;
  - Supporting national assessment and forest and wood resources assessment in Vietnam.



2

EXPLORING REDD+ IMPLEMENTATION IN INDONESIA'S STATE POLICIES FOR INDIGENOUS PEOPLES

By
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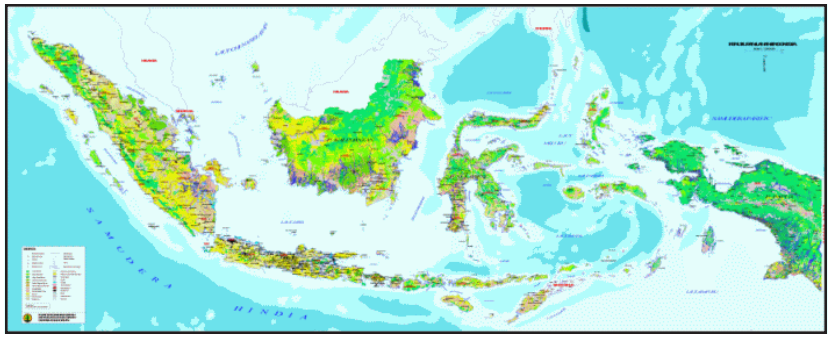
INTRODUCTION

General Description of Indonesia's Regions

Indonesia is the largest archipelagic country in the world with its 17,504 islands (BPS 2009, 164), and 18,000-km coastlines. Geographically, it lies from 06°08′ north latitude to 11°15′ south latitude, and from 94°45′ to 141°05′ east longitude, between two oceans (the Indian Ocean and the Pacific Ocean) and between two continents (Asia and Australia).

In addition to its strategic location, Indonesia is also gifted with exceptionally rich natural resources and diverse cultures. Although the land spans only 191 million hectares, Indonesia is among the richest countries in terms of biodiversity (megabiodiversity country) and cultural diversity (megacultural country). These are shown in the following: 515 kinds of mammals (12% of the world total), 511 kinds of reptiles (7.3% of the world total), 1,531 kinds of birds (17% of the world total), 270 kinds of amphibians, 2,827 kinds of avertebratae, 38,000 kinds of plants (Forestry Department 2006, 74) and some 336 cultural groups (BPN 2003, 150) of thousands of ethnic and sub-ethnic groups dispersed from Sabang (Aceh) up to Merauke (Papua).

Figure 1. Indonesia's geographical conditions



Unfortunately, Indonesia is very vulnerable to climate change due to the fact that the archipelago is made up of only five big islands with the rest being small islands. Climate change has raised the sea level due to the increase in global water volume and the melting of polar ice blocks, and this threatens the existence of the islands and the people living on them. For example, Enggano Island in North Bengkulu, Bengkulu Province, has seen very bad abrasion in the last five years (Nazarudin 2009). In fact, two islands near Enggano (Satu Island and Bangkai Island) were swallowed by the sea in 2003. In North Lombok, West Nusa Tenggara, climate change has been altering the coastline for the last five years, pushing it further into the interior, and causing the disappearance of several fish markets (*Tempat Pelelangan Ikan*) and the destruction of several mosques and wells in coastal areas. A flood devastated the area in early January 2010.[1] Similar occurrences have been threatening Kepulauan Seribu, Madura, Serangan Island, Simelue, Biak Padaido, Flores, Lombok, Haruku, Ambon as well as the Togean islands and the Banggai islands.[2]

Climate change has also been affecting indigenous peoples. Unstable and unpredicted weather affects the indigenous peoples' local natural resource management wisdom. The long-established knowledge of determining planting, fishing and ceremonial cycles has been altered. In Haruku, Maluku, the planting season, which used to start in October, now starts in December. The fishing season, which used to last from February to September, has changed. The traditional Sasi Lompa[3] ceremony, which used to be held before the "west season" came (precisely in November), cannot be held at this time anymore.[4]

Climate change is a certainty and cannot be avoided. The problem is that it is accelerated by global warming. The latter is caused by human dependency on carbon-based fuel. A high level of carbon emitted and collected in the atmosphere causes what is called the green house effect, which raises the earth's temperature.

Indigenous peoples have been experiencing the impact of global warming such as extreme weather changes, longer droughts, and increasing rainfall, which causes frequent floods. The Meteorology, Climatology and Geophysics Bureau (BMKG)

reported the minimum and maximum temperature changes observed in 33 observation stations during 1980-2002 as follows: the lowest change was observed in Denpasar, Bali (0.087°C annually) and the highest in Polonia, Medan, North Sumatra (0.172°C annually) (Gunte 2010). In the agricultural sector, this has resulted in harvest failures and thus has affected national food security.

Indonesia's Forest Conditions

Forests and climate are closely related. Forests help maintain environmental stability by: maintaining micro climate, eliminating extreme temperature, and maintaining soil conditions. The larger the forest areas, the more stable the climate.

Indonesia's forests are ranked as the third most extensive in the world, and therefore they are strictly important to the global carbon cycle. Indonesia's forests span 98.5 million hectares, which is about 52.4 per cent of the total 187.4 million hect-

Table 1. Indonesia's land cover (in million hectares)

Land Cover	Forest Area		Other Usages Area (APL)		Total	
	Area (mha)	Percent (%)	Area (mha)	Percent (%)	Area (mha)	Percent (%)
Forest	90,135	48.0%	8,325	48.0%	98,460	52.4%
Non Forest	39,276	20.9%	46,491	24.8%	85,767	45.7%
No Data	2,986	1.6%	572	0.3%	3,558	1.9%
Total	132,398	70.5%	55,387	29.5%	187,785	100.0%

Source: Center for Forest Inventory and Mapping, Forestry Planology Bureau, Forestry Department. Recalculation of the 2008 land cover. Note: water bodies (lakes, rivers, sea/waters conservation) are excluded from the calculation. The info was based on the interpretation of the 2005/2006 Lansat 7 ETM+ images.

ares of land cover. According to Food and Agriculture Organization (FAO), the total forest vegetation in Indonesia produced more than 14 billion tonnes of biomass, much higher than the other countries of Asia and equal to 20 per cent of the total biomass produced by the entire African forests. Indonesia's amount of biomass stores are roughly 3.5 billion tonnes of carbon (FWI/GWF 2001,117). Such an enormous carbon stock is important to maintain the climate. Therefore, the quality and the quantity of Indonesia's forests need to be maintained to reduce the impacts of current climate change.

To conserve and maintain Indonesia's forests-, the government has designated forest areas. Currently, the forest areas encompass 132.4 million hectares (70.5% of the total land cover), comprising 90.1 million hectares (48%) of forested land, 39.3 million hectares (20.9%) of non-forested land, and the remaining being unidentified due to an unavailability of data. Based on their basic functions, the government has determined that forest area consists of Conservation Forest; i.e., Forest area with specific characteristics whose basic function is to preserve fauna and flora diversity and ecosystems; Protected Forest, i.e., protection of life supporting systems to regulate water system, prevent floods, control erosions, prevent sea intrusion, and maintain soil fertility; and Production Forest, i.e., forests whose basic function is to produce forest products.[5]

Indigenous Peoples in Indonesia

The total population of Indonesia is now estimated to be 234 million (BPS 2009, 164); however, no official data is available on the number of indigenous peoples. There is the so-called remote customary community (*Komunitas Adat Terpencil*/KAT) totaling 1,192,164 (DSR 2003, 88). The Joshua Project shows that Indonesia has 782 ethnic and sub-ethnic groups totaling 221,860,000 people (Joshua Project.net). *Aliansi Masyarakat Adat Nusantara*/AMAN (Indigenous People Alliance of The Archipelago) estimates Indonesia's indigenous peoples range from 50 to 70 million in number.

Who are the indigenous peoples of Indonesia? Some say that all Indonesians are indigenous people; however, no termi-

nology has been identified and agreed upon to identify the indigenous peoples in Indonesia. AMAN, as the only national umbrella organization for indigenous peoples, explicitly defines indigenous peoples as:

> *a group of people who, based on ancestral origin, live in a specific geographical area, have a distinct value and sociocultural system, sovereignty over their land and natural resources and control and take care of their survival by means of customary laws and institutions.*[6]

How then does AMAN distinguish indigenous peoples from others? Or how do they identify themselves as indigenous peoples? Indigenous peoples have four (4) ancestral heritages as a means to identify themselves and as the base on which they identify themselves, as follows:

- *A group of people sharing the same cultural identities:* Indigenous peoples have distinct characteristics in terms of language, spiritual values, norms, attitudes and behaviors that distinguish a social group from another;
- *Living area (ancestral territory, ancestral domain, customary territory):* this includes land, forests, sea and other resources, which cover not only goods but also religious and sociocultural systems;
- *Knowledge system:* also called "traditional wisdom" or " local wisdom," which are not only to be preserved but also enriched/developed in line with the needs to sustain their existence; and
- *A common regulating and governing system:* these include customary laws and institutions to regulate and govern themselves (Nababan 2010).

According to the characteristics explained above, AMAN identifies indigenous peoples in Indonesia through community-based approaches. Such approaches are based on the fact that among the globalized Indonesian groups some identify themselves as indigenous peoples. Examples include groups in Java Islands such as the Orang Kanekes (Baduy), the Kasepuhan of Banten Kidul, the Sedulur Sikep of Pati, the Orang Osing (Sedulur Sikep) and the Tengger of East Java. On Sumatera Island, people

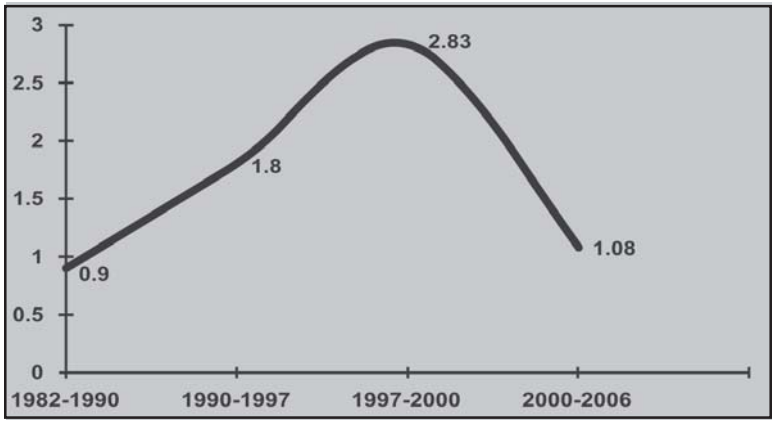
can find some social groups still living under their distinct customary laws such as the Orang Rimba of Jambi and the Orang Talang Mamak of Riau. There are currently 1,163 customary law communities incorporated into AMAN.

DEFORESTATION AND FOREST DEGRADATION IN INDONESIA

Indonesia is the third largest GHG (greenhouse gas) contributor in the world. One of the largest sources of GHG emissions in Indonesia is the forestry sector with emission levels reaching 2,563 $MtCO_2e$ (Peace 2007). These emissions are the result of deforestation and forest degradation.

Simply put, deforestation means the changing of forest areas into non-forest areas; while forest degradation is the reduction of forest areas resulting in declining forest quality. The rate of deforestation and forest degradation in Indonesia is estimated to be approximately two million hectares annually.

Figure 2. Indonesia's deforestation and forest degradation rate



Source: Gelgel, I Made Subadia. 2010. "Kebijakan Pengelolaan Hutan Bagi Kesejahteraan Masyarakat Adat," (Presented in the national seminar on "Bylaw on Recognition and Protection of Indigenous Peoples' Rights as the manifestation of indigenous peoples' rights promotion and fulfilment of FPIC principles," held in YTKI building, Jakarta, on 15 March 2010).

The rate of deforestation and forest degradation increased drastically from 0.9 million hectares in 1982 to its highest point, 2.83 million hectares, in 1997-2000. The rate decreased to 1.08 million hectares in 2006. However, this rate is estimated to be increasing again given pre-existing policies that indirectly support forest conversion, such as oil palm plantations.

Drivers of Deforestation and Forest Degradation in Indonesia

What drives deforestation and forest degradation is still the subject of fierce political debate in Indonesia. The government, researchers, activists and communities still disagree on the subject and tend to blame one another.

Human activity inside and around forests (including those undertaken by indigenous peoples) are often said to cause deforestation and forest degradation. The notion puts the blame on practices such as rotational cultivation, forest burning and logging. Quite a number of people say that deforestation and forest degradation are the result of bad governance (corrupt economic politics).

Severe deforestation and forest degradation occur as a result of overlapping concessions. These conditions confirm the argument that government policies are the most influential force behind deforestation and forest degradation. Examples include Ministry of Forestry's policy on timber industry development to increase the state's revenues, in which supplies come from large scale logging, both legal and illegal; timber utilization permit (*Ijin Usaha Pemanfaatan Hasil Hutan Kayu*/IUPHHK) both on natural forests and plantation forests; conversion to oil palm plantations, mining and transmigration. In addition, forest burning and forest fires contribute to the deforestation and forest degradation.

Timber industry in Indonesia

During the New Order Era (1960s to mid 1990s), the timber industry was adopted as the main driver of the Indonesian economy. At that time, the government believed that timber

production could be used to pay off debts, with a portion used to drive development. Based on such policies, is no wonder that the timber industry has been flourishing since that time.

To date, Indonesia has been a timber supplier for developed countries. Indonesia produces logs, sawn timber, plywood, pulp and paper as well plantation products such as oil palm, rubber and cocoa (FWI/GWF 2001, 117). This production relies on both legal and illegal supply from natural forest and timber plantation. The table below indicates forest production and the realization of industrial capacity.

From Table 2, it can be concluded that the production of sawn timber and plywood (plus veneer) decreased in the period between 2000 and 2005. When compared with the installed capacity of the two industries, it shows that they face a deficit in log supply as raw material, although a scarcity of raw material had started since 1997 (FWI 2007). On the other hand, the pulp industry was developing from 2000 through 2005, in line with increasing deforestation and forest degradation.

Table 2. Forest production and the realization of industrial capacity (the 2007 FWI's analysis)

Type of industry	Production		Installed capacity	
	2000	2005	2000	2005
Sawn timber	6.50 million m^3	4.33 million m^3	58.8%	41.3%
Plywood and + *Veneer*	8.27 million m^3	4.67 million m^3	87.7%	42.1%
Pulp	4.09 million tonnes	5.47 million tonnes	78.2%	84.8%

Source: Processed from FAO (2006), Indonesia's Department of Forestry (2006), BPS (2006), and APKI (2007). The table excludes data on woodworking, moulding, particle wood and fiber wood.

Timber utilization permit over natural forests (Ijin Usaha Pemanfaatan Hasil Hutan Kayu pada Hutan Alam/IUPHHK-HA)

In line with Indonesia's developing timber industry, the government grants timber utilization permits over natural forests (IUPHHK-HA), previously called the "forest concession permit" (Hak Pengusahaan Hutan/HPH). Forestry Ministry Regulation (Peraturan Menteri Kehutanan/Permenhut) No. P. 12/Menhut-II/2008 regulates the licensing processes for these permits. This regulation stipulates that those entitled to apply for such permits are individuals, cooperatives, state-owned enterprises (BUMN) and private enterprises (either limited liability business entity/PT or CV). Activities regulated by the decree include logging, transporting, planting, maintaining, securing, processing and marketing timber forest products.[7]

As can be understood from Table 3, the size of IUPHHK-HA, among other concessions, were in a state of decline from 1983 through to 2009 because of increasing forest degradation. Many concessions are over-exploited and have violated the mandatory selective cutting system. As a result, about 33.6 million hectares (between 1993 and 2006) and 2.44 million hectares (between 2006 and 2009) of the concessions, which were in fact natural forests, were deforested and degraded.

Table 3. Number of IUPHHK-HA in Indonesia

Year	Unit	Area (million hectares)
1983	575	61.70
2006	303	28.10
2009	308	25.66

Source: Information Sheet, FWI (2007); and Data release by Dirjen Bina Produksi Kehutanan (2009).

Timber utilization permits over plantation forests (Ijin Usaha Pemanfaatan Hasil Hutan Kayu pada Hutan Tanaman/IUPHHK-HT)

IUPHHK-HT, previously known as Industrial Plantation Forests (Hutan Tanaman Industri/HTI), is a permit granted to establish a timber plantation over a production forest in order to increase the potential and the quality of production forests to supply raw material for industrial demands. The licensing processes are regulated by Forestry Minister Decree No. P.11/ Menhut-II/2008 concerning the Licensing Procedure of Expansion of Timber Utilization of Plantation Forest on Production Forest.

The number of permits is currently increasing in line with an increased demand for timber. However, the productivity of such plantation forests remains low. The number of permits granted in 2009 fetched 229, with a total land area of 9,972,732 hectares. However, only 275,049 hectares of these were actually planted (Direkrorat Bina Produksi Kehutanan 2009). Most of industrial timber plantation permit holders source their raw material by logging within their concessions while neglecting the obligation to plant the trees. It can be said that the operation of industrial timber plantation is responsible for stripping and degrading some nine million hectares of forests.

Oil palm plantations

The conversion of forests into oil palm plantations has been rapidly developing and increasing until now. Oil palm plantations have expanded from 105,808 hectares in 1967 to 2.5 million hectares in 1997, growing to 5.25 million hectares in 2003 and expanding again to 5.59 million hectares in 2005 (FWI 2007).

This rapid development was supported by the Indonesian Government, which sought to make palm oil one of the chief commodities by which to increase the state's foreign currency reserves, besides timber. In 2008 Indonesia became the largest crude palm oil (CPO) producer in the world with 19.2 million tonnes total production (Republica.co. 2007) from approximately seven million hectares of plantations.

Currently, the Government of Indonesia is trying to further increase its CPO production. This will be achieved by an "oil palm for the state's prosperity" plantation vision through an "Oil Palm-Based Industrial Cluster Development" approach. It is estimated that oil palm plantations will encompass 9.127 million hectares in 2020.

The introduction of biofuel as an effort to mitigate climate change has driven rapid oil palm plantation expansion in Indonesia. The government has designated palm oil as a raw material for biofuel through the issuance of Presidential Instruction (Inpres) No. 1/2006 on the provision and use of biofuel, and Presidential Decree (Keppres) No.10/2006 on the formation of a national biofuel development team (TimNas BBN).

Both policies have indirectly legalized the destruction of forests to establish oil palm plantations. The fact is that oil palm plantations are often established on existing forest areas, causing deforestation and forest degradation. Many plantation companies are more interested in collecting the logs for timber rather than planting oil palms. Some don't even have any intention establish palm plantations at all—they simply seek a concession to profit from trees felled during the land clearing (FWI 2007). Additionally, of major concern is the use of environmentally destructive practices such as clear-cutting, burning forests and building canals to drain peatland (Saragih 2009).

Table 4. Estimated Composition of Indonesia's Oil Palm Plantations in 2020

The 2008 position			**The estimated 2020 position**		
Management type	Area (1,000 ha)	(%)	Management type	Area (1,000 ha)	(%)
Community-based plantations	2,903	41.42	Community-based plantation	4,107	45.00
State's plantation	608	8.67	State's plantation	912	10.00
Private plantation	3,497	48.64	Private plantation	4,107	45.00
Total	**7,008**	**100**	**Total**	**9,127**	**100**

Source: Directorate General of Plantation, Department of Agriculture (2009).

Mining

Mining, especially open-pit mining, has caused forest destruction in Indonesia. To date, mining operations still run inside protected forests and conservation areas. Of the total 1,830 mineral and coal concessions encompassing 28.27 million hectares, 150 lie inside protected forests and conservation areas, encompassing more than 11 million hectares (data processed by JATAM 2006) (FWI 2007.) These continue despite the fact that there is a policy that prohibits mining operations inside protected forests. The Forestry Law No. 41 of 1999, article (38) paragraph (4) stipulates that "open mining operations are prohibited inside protected forests." However, prior to the issuance of the law, some companies were already operating inside protected forests.

On 12 May 2004 the government, through Presidential Decree No. 41 of 2004, allowed the 13 mining concessions permits granted prior to Law No. 41 of 1999 to continue with operations until their concessions' expiry dates. Table 5 which lists the mining permits, reveals that at least 927,648 hectares of protected forests have been destroyed and some of them are likely to be destroyed soon.

Forest and land fires

Forest and land fires in Indonesia have been recorded since the 1980s. The largest ones occurred in 1997 and 1998 destroying more than 9.8 million hectares of forest. The cause of the fires has not yet been identified. Some conjecture that companies converting forests into oil palm plantations and mines intentionally started most of the fires.

To date, forest fires have been occurring in Indonesia due to prolonged drought that makes the forests dry and burn easily. For example, in 2006 and 2009, the fires that occurred on peatland in ex-concession land of PLG Central Kalimantan can be attributed to prolonged drought.

Table 6 shows the total burned forest and land area (6,974.62 hectares and 869.84 hectares respectively). So, the total fires of 2007 encompassed 7,844.46 hectares. The total number of fire

hotspots was 37,909. It means that in 2007, 7000 hectares of Indonesia's forest were deforested in this way.

Transmigration

Since 1960s the Indonesia's government has started a transmigration program to move people from densely-populated areas (Java and Bali) to less densely populated areas (Sumatera, Kalimantan, Papua and other islands). Up to the 1990s the program cleared around two million hectares of forests for agricultural land.

Table 7 shows that the most targeted areas for transmigration sites in 2007 were North Sumatra, Lampung and Irian Jaya. The total forest areas converted for transmigration sites was 120,593.29 hectares in North Sumatera, 134,147.20 hectares in Lampung and 117,194.48 hectares in Irian Jaya. Up to 2001, the deforested area totaled 956,672.82 hectares. The current transmigration program is thought to have something to do with the expansion of plantations. After getting land certificates from the government, the transmigrants can easily sell their land to companies. Rather than managing the land, they then work for the companies. In the last decade the focus of the transmigrated people has shifted from subsistence agriculture to working for oil palm companies and timber plantations (FWI/GWF, 2001).

Table 5. Lists of mining permits allowed to continue until the expire date

No	Government's approval	Date of approval	Type of permit	Company Names	Mineral extracted	Activity phase	Location		Size (Ha)
							Province	District/ City	
1	82/EK/KEP4/1967 7 April 1967	7 April 1967	KKG-I	Freeport Indonesia Comp	Copper, gold, dmp	Production	Papua	Mimika	10,000
	B392/Pres/12/1991 26 Dec.1991	30 Dec. 1991	KKG-V	Freeport Indonesia Comp	Copper, gold, dmp	Exploration	Papua	Mimika, Paniai, Jaya Wijaya, Puncak Jaya	202,950
2	B-121/Pres/9/1971 22 Sept. 1971	4 Oct. 1971	KKG-II	Karimun Granit	Granite	Production	Kepulauan Riau	Karimun	2,761
3	B-745/Pres/12/1995 29 Dec.1995	15 Jan. 1996	KKG-II	INCO Tbk.	Nickel	Production	South Sulawesi, Central Sulawesi, South East Sulawesi	Luwu Utara, Kolaka, Kendari, Morowali	218,528
4	097B/Ji.292/U/1990 5 Oct. 1990	5 Oct. 1990	PKP2 B G-I	Indominco Mandiri	Coal	Production	East Kalimantan	Kutai Timur, Kota Bontang	25,121
5	1053.K/20.13/MPE/1997 9 Jul. 1997	9 July 1997	KP	Aneka Tambang Tbk (A)	Nickel	Production	North Maluku	Halmahera Tengah	39,040

6	B-43/Pres/11/1986 6 Nov.1986	2 Dec. 1986	KK G-IV	Natarang Mining	Gold dmp	Construct'n	Lampung	Lampung Selatan Tanggamus, Lampung Barat	12,790
7	B-143/Pres/3/1997 17 Mar. 1997	28 April 1997	KK G-VI	Nusa Halmahera Minerals	Gold dmp	Production, construction, exploration	North Maluku	Halmahera Utara, Halmahera Barat	29,622
8	B-53/Pres/1/1988 19 Jan.1988	19 Feb. 1998	KK G-VII	Pelsart Tambang Kencana	Gold dmp	Exploration	South Kalimantan	Kotabaru, Banjar, Tanah Laut	201,000
9	850/A.I/1 997 20 Nov. 1997	20 Nov. 1997	KPK2 B G-III	Interex Sacra Raya	Coal	Feasibility study	East Kalimantan and South Kalimantan	Pasir Tabalong	15,650
10	B-53/Pres/1/1988 19 Jan. 1988	19 Feb. 1998	KK G-VII	Weda Bay Nickel	Nickel	Exploration (Detail)	North Maluku	Halmahera Tengah	76,280
11	B-53/Pres/1/1988 19 Jan. 1988	19 Feb. 1998	KK G-VII	Gag Nikel	Nickel	Exploration (Detail)	Papua	Sorong	13,136
12	B-53/Pres/1/1988 19 Jan. 1988	19 Feb. 1998	KK G-VII	Sarikmas Mining	Gold dmp	Exploration (Detail)	North Sumatera	Mandailing Natal	66,200
13	1170/20.01/UPG/1999 7 Sept. 1999	7 Sept. 1999	KP	Aneka Tambang Tbk (B)	Nickel	Exploration (Detail)	South East Sulawesi	Kendari	14,570

Source: Annex to Presidential Decree No. 41 of 2004, 12 May 2004.

Table 6. Forest and land fires by province*

No	Province	Forest fires (Ha)	Land fires (Ha)	Number of hot spots detected by the NOAA satellite of the Department of Forestry, Jakarta in 2007*
1	Aceh Darussalam (NAD)	24.00	25.00	261
2	North Sumatera	131.00	22.75	936
3	West Sumatera	16.50	165.50	427
4	Riau	37.75	50.50	4,169
	Kepulauan Riau	-	-	101
5	Jambi	55.00	103.00	3,120
6	Bengkulu	-	-	255
7	South Sumatera	27.00	-	5,182
8	Bangka Belitung	-	-	764
9	Lampung	2,532.25	-	1,639
10	DKI Jakarta	-	-	77
11	Banten	-	-	38
12	West Java	372.00	-	325
13	Central Java	516.50	-	268
14	DI Yogyakarta	-	-	35
15	East Java	1,821.80	2.50	1,503
16	Bali	-	-	57
17	West Nusa Tenggara	-	-	903
18	East Nusa Tenggara	1,415.82	174.90	1,140
19	West Kalimantan	-	125.69	7,561
20	Central Kalimantan	-	200.00	4,800
21	South Kalimantan	25.00	-	928
22	East Kalimantan	-	-	2,082
23	North Sulawesi	-	-	35
24	Gorontalo	-	-	93
25	Central Sulawesi	-	-	182
26	South Sulawesi	-	-	551
27	South East Sulawesi	-	--	288
	West Sulawesi	-	-	145
28	North Maluku	-	-	13
29	Maluku	-	-	26
30	Papua	-	-	5
	Total	**6,974.62**	**869,84**	**37,909**

*Source: Hot Spot data: the NOAA 12, 15 and 16 satellite; Map source: Forest Use Consensus (TGHK) of the Forestry Planology Agency 1999, Indonesia's Administration Map of Bakosurtanal 2006, Basic Forestry Map 2006.

Indigenous People's View of Drivers of Deforestation and Forest Degradation

In general, indigenous peoples reject all kinds of commercial activities and or companies operating on customary forests as such practices not only destroy and degrade forests but also deprive indigenous peoples of their rights to land, forests and access to the natural resources. Indigenous people's rejection of commercial practices in various areas in Indonesia has resulted in conflicts with companies. Below are some examples of such cases.

In January 2009, the indigenous Sedulur Sikep in Pati, Central Java, protested a plan by PT Semen Gresik to construct a cement factory. The plan was rejected by the community because the factory was to be built on customary land which is called "Tanah Bengkok" in local language, around the Kendeng mountain. The people thought that the factory would destroy the water source, causing the farm land to dry up, additionally the community would find it hard to get clean water.

On 25 July 2009, indigenous peoples in two villages (Pandumaan and Sipitu Hula) Pollung sub-district, in the Humbahas district, North Sumatera, filed a complaint to the district and provincial governments about the plundering and felling of local benzoin trees by PT Toba Pulp Lestari (PT. TPL). The company was operating in the 4,100-hectare "Tombak Haminjon" or "benzoin forest," which traditionally belongs to the villages. As a result of the operation, the people lost their rights to the land and lost their source of livelihood, as well as the source of incense used for customary ceremonies. Besides, they were often intimidated by the company.

On 30 January 2009, the people of Labuan Bajo, Manggarai Barat, East Nusa Tenggara, protested against gold mining by PT Grand Nusantara, located on Batu Gosok which traditionally belongs to the people. They said that the land was seized

Table 7. Forest conversion for transmigration sites up to 2001

No	PROVINCE	IMPLEMENTED						TOTAL
		HL (Ha)	HAS (Ha)	HPT (Ha)	HP (Ha)	HPK (Ha)	APL (Ha)	
1	DI. Aceh			10,781.12	3,608.30	23,465.98	1,521.25	39,376.65
2	North Sumatra	68.00		12,118.00	5,385.00	7,792.00	3,167.44	28,530.44
3	West Sumatra	495.00			2,149.25	12,804.75	793.25	16,242.25
4	Riau			7,253.30	1,832.00	55,775.78	9,168.70	74,029.78
5	Jambi				2,712.00	50,167.53	25,533.00	78,412.53
6	Bengkulu			2,613.50		3,342.95	8,371.00	14,327.45
7	South Sumatra		5,775.5	2,400.00	57,397.12	37,590.67	17,430.00	120,593.29
8	Lampung			623.00	1,085.00	2,206.00	130,233.20	134,147.20
9	West Nusa Tenggara				625.00	2,325.00		2,950.00
10	East Nusa Tenggara					1,137.00		1,137.00
11	West Kalimantan	627.00		2,757.56	2,230.10	5,927.50	37,657.00	49,199.16
12	Central Kalimantan			7,447.98	24,538.28	34,149.51		66,135.77
13	East Kalimantan			2,625.64	5,440.50	31,824.95		39,891.09
14	South Kalimantan		617.00		11,399.50	20,374.50	11,110.50	43,501.50
15	North Sulawesi			1,593.00		3,496.56		5,089.56
16	Central Sulawesi	60.00	1,979.	2,960.00	9,885.00	6,251.23	15,164.00	36,299.23
17	South Sulawesi	1,120		1,510.00		1,138.50	7,624.15	11,392.65
18	South East Sulawesi		700.00	2,230.00	4,926.64	27,203.85	19,385.72	54,446.21
19	Maluku	2,062		5,580.00	1,312.00	14,822.58		23,776.58
20	Irian Jaya	1,997		6,696.30	22,581.60	76,348.58	9,571.00	117,194.48
Total		6,429	9,071.5	69,189.40	157,107.29	418.145,42	296,730.21	956,672.82

Source: Forestry Planning Agency, Ministry of Forestry (2001).

by the Manggarai Barat district government for tourism development but was then handed over to PT Grand Nusantara.

On 11-12 December 2009, the indigenous Dayak se-Kualatn Semanakng expressed their rejection to any kind of destruction to their customary forest initiated by a company. The rejection was expressed during the plenary session at the parish hall of St. Martinus Balai Berkuak in Simpang Hulu sub-district, Ketapang, West Kalimantan, which was attended by the community's leaders.

The rejection was not the first from the communities. This was the seventh time that they had imposed customary punishment on companies illegally entering their customary forests (Unjing 2009).

The Impacts of Deforestation and Forest Degradation on Indigenous Peoples

To indigenous peoples who live in and around forests, deforestation and forest degradation affect all aspects (economic, cultural, political and social) of their lives.

Economically, indigenous peoples lose their independence in fulfilling their basic necessities as they lose their sources of livelihood and shelter. For example, the living areas of the indigenous Orang Rimba or Suku Kubu in Jambi, are now smaller as a result of oil palm plantation expansion and the transmigration program. Some are even forced to live in poor temporary shelters inside the plantations. They have difficulty in finding food from the forest and have to rely on food from the outside. "Now it is difficult for us to find food, so we rely on rice and food from outside," said Gilan, a member of the indigenous Orang Rimba living in the transmigration area in Pamenang sub-district (Kompas.com 2009). About 2.3 million hectares of their land has been converted into oil palm and acacia plantations, forest concessions and transmigration sites (Tambunan 2008).

Politically, indigenous peoples lose their identity and sovereignty in determining their lives. The loss of customary forests means that indigenous peoples are unable to independently regu-

POSITION PAPER
CUSTOMARY LEADERS IN A DAYAKSE-KUALATN SEMANAKNG'S PLENARY MEETING
SIMPAKNG HULU SUB-DISTRICT, KETAPANG DISTRICT
WEST KALIMANTAN PROVINCE

From the 11 to the 12 of December 2009 we, the Dayak se-Kualatn Semanakng customary leaders, held a customary meeting and found out the following problems:

That there have been efforts to persuade the indigenous Dayak se Se-Kualatn Semanakng to hand over/sell their customary land and forest to palm, mining and HTI companies:

- There have been legal and illegal mining operations, which have caused and will cause environmental destruction, particularly of the river and its territories;
- It has come to our attention that illegal narcotics and drugs are circulating in Simpang Hulu sub-district, which harms the people and causes widespread anxiety;
- There has been a large inflow of people from the outside to Simpang Hulu sub-district, which is causing widespread anxiety;
- It has been indicated that customary laws and culture are being undermined as a result of the rapid inflow of outside culture and a lack of cultural education among youth.

Based on the problems above, we the indigenous Dayak se-Kualatn Semanakng, express our position that:

- We reject any oil palm company or the operation of any scheme to be implemented in the entire customary area of the indigenous Kualatn Semanakng, Simpang Hulu sub-district, Ketapang district;
- We reject any mining operation, both legal and illegal, in the customary areas of the indigenous Kualatn Semanakng, Simpang Hulu sub-district,

especially those operations which have destroyed the land and the forests and in fact have polluted the river which is used in the daily lives of the peoples;

- We urge law enforcers (the Police) to terminate any illegal and destructive mining operation;
- We reject HTI companies in the customary areas of the indigenous Kualatn Semanakng, Simpang Hulu sub-district;
- We urge the enforcers (the Police) to arrest those that have been circulating illegal narcotics and drugs in the customary area of the indigenous Kualatn Semanakng, Simpang Hulu sub-district;
- We urge the district government of Ketapang to protect the customary areas of the Kualatn Semanakng, Simpang Hulu sub-district, from investment that disadvantages the people.

Source: Plenary session of the indigenous Dayak se-Kualatn Semanakng, held in St. Martinus Balai Church, Simpang Hulu village sub-district, Ketapang district, West Kalimantan, 12 December 2009.

late their lives. In West Kalimantan, case studies show that the indigenous peoples have lost their customary forests due to oil palm expansion. They become company workers on their own land. Some have to work as paid rubber tappers such as in Pendaun Village, Simpang Hulu sub-district, Ketapang district, West Kalimantan. Currently, many outsiders become paid rubber tappers in the village as they no longer have customary forests that they used to manage (Togan 2009).

Culturally, it becomes more difficult for indigenous peoples to maintain their ancestral cultures. This is because they need their forest resources for their customary ceremonies. For example, the indigenous Suku Saroro in Ugai hamlet, Madobag Village, Siberut Sub-district, Mentawai District, West Sumatera, needs certain leaves and a wild boar for their *Pabetei* ceremony. *Pabetei* is a ceremony conducted to heal diseases conducted by a *sikerei* (traditional healer), who diagnoses a disease by communicating with *sabulungan* (spirit) by means of the forest leaves. A

wild boar is the other requirement. "Wild boars are hard to catch now, even after trying a whole day, making the ritual, which is to be held in the morning, practically impossible" (Rinaldi 2010). The habitat of the wild boar is being destroyed due to deforestation and forest degradation which threatens the exercise of the ritual.

INDONESIAN GOVERNMENT POLICIES AND PROGRAMS RELATED TO INDIGENOUS PEOPLES' RIGHTS

Forestry Policies and Programs in Indonesia

There are two important laws in Indonesia's forestry sector, Law No. 41 of 1999 on Forestry and Law No. 5 of 1990 on Conservation of Bio Natural Resources and Their Ecosystems. Both of these laws are the legal base and reference for other forestry and conservation laws. Forestry Law No. 41 of 1999 gives a mandate to the government, in particular the Forestry Minister, to exercise three authorities, namely:

1. To regulate and manage matters related to forests, forest area and forest products;
2. To designate a given area as forest area or non-forest area;
3. To regulate and set the legal relationship between people and forests, and to regulate legal actions on forestry affairs.[8]

Designating these responsibilities to the Forestry department means that an authoritarian and arbitrary attitude towards forest resource management prevails, which simply pushes indigenous peoples' rights to forests aside. To make things worse, with its high level of authority, the department hands over most customary forests to businesses/investors through concessions such as Timber Utilization Permits (over natural and plantation forests).

Law No. 5 of 1990 puts more emphasis on flora and fauna than on human rights. The law does not recognize indigenous

peoples' rights, and focuses entirely on the conservation of flora and fauna. The law even stipulates that indigenous peoples can be driven out of forests in the name of conservation if they are believed to have destroyed or threatened flora and fauna.

In relation to climate change and REDD, the Department has set out five priority policies through the Forestry Minister's Decree (*SK Menhut*) No. 456/Menhut-VII/2004. These policy priorities have also become the 2005-2009 forestry program. Since late 2009, these five policy priorities have been developed into eight, namely:

1. Reinforcement of sustainably managed forests;
2. Forest rehabilitation and improvement to river basin (DAS) carrying capacity;
3. Forest safety and protection;
4. Conservation of bio natural resources and their ecosystems;
5. Revitalization of forests and forest products;
6. Empowerment of forest people;
7. Climate change mitigation and adaptation in the forestry sector; and,
8. Forestry institutions' capacity building (Departamen Kehutanan 2010).

The policies provide the framework and the legal basis for climate change mitigation and forest peoples' empowerment. In addition, the Forestry Department has issued various regulations related to Protected Area Management (Forestry Minister Decree No. 19 of 2004) Community-based Forest, Community Plantation Forest, and Village Forest (Presidential Regulation No. 6 of 2007).

In fact, the Indonesian government has developed a draft regulation on customary forests. This draft, however, has met severe criticism and has not been endorsed by AMAN because the substance was far from what indigenous peoples expected. Nowhere in the draft is a full recognition of indigenous peoples' rights to customary forests.

Land Tenure in Indonesia

Policies related to land tenure in Indonesia

There are at least four policies related to land tenure in Indonesia. First, the 1945 Constitution, Article 33, paragraph 3 in particular, states that all natural resources including land shall be utilized to the maximum extent for the prosperity of the people. Second, the Decree of the People's Consultative Assembly (TAP MPR) No. IX/MPR/2001 serves as the basis of agrarian reform and natural resource management. Third, Law No. 5 of 1960 on Basic Agrarian Regulation, commonly known as UUPA, specifically regulates natural resource management, including that of land, water and space. And fourth, Law No. 41 of 1999 on Forestry regulates the land rights or titles inside forest area.

Problems with Land Tenure in Indonesia

The problem with land tenure in Indonesia begins with the abuse of the state's controlling power (*Hak Menguasai Negara*/ HMN) implied in the 1945 Constitution article 33, in particular point 3, which says "the land and water and all the natural resources contained therein *are controlled* by the state and shall be utilized to the maximum extent for the prosperity of the people." During the New Order regime, this HMN was abused and interpreted as absolute power for the state to control and manage land and the natural resources contained therein. Natural resources were exploited to the maximum and used as a political tool with its inherent partisan interests. Indigenous peoples' rights to land were nullified and taken over by the state, which then passed the management rights of land to businesses, including foreign companies. Besides, the expropriation of customary land was then reinforced by sectoral laws such as the Forestry Law, the Estate Crops Law and the Mining Law.

HMN is reasserted in Law No. 5 of 1960 on Basic Provisions on Basic Agrarian (UUPA), which interprets HMN as three authorities of the state, namely:

1. To regulate and implement designation, use, provision and maintenance of land, water and space;

2. To set and regulate legal relationship between the people and land, water and space;
3. To set and regulate legal relationship between the people and legal actions concerning land, water and space.[9]

In fact, UUPA does recognize indigenous peoples' rights in its statement that "the applicable agrarian law is customary law." However, the government's political willingness to give such recognition is still tenuous, shown by the obligation imposed on indigenous peoples to meet very difficult requirements. Customary land is only recognized after it is backed up by bylaws or decrees from the related district/provincial governments and proved by scientific review.

The issuance of the Forestry Law No. 41 of 1999, which determines which land designated as forest, has added to the confusion. According to the Law, forest area falls into two categories: state forest, where no private land title exists, and privately-owned forest, where the land can be classified as forest but private rights are held over it. Although customary forests (*hutan adat*) are mentioned, they are classified as state forest. In particular, the law states that, "Customary forests are the state's forests lying on customary territories."

Forest area status has become the main driver of conflicts over land tenure in the forestry sector. Conflicts arise when indigenous peoples are said to be encroaching upon the state's forests, which are in fact customary forests. In such conflicts, indigenous peoples have often been criminalized and intimidated. Examples include the indigenous Kasepuhan Banten Kidul, whose *wewengkon* or customary forest is arbitrarily designated part of the Halimun Salak National Park, and who are hence considered to be illegally encroaching on the area. Another example is the incident on 10 March 2004 in Manggarai District, East Nusa Tenggara, where four members of Tangkul-Colol Village were shot and killed by the Police when they were protesting the arrest of some villagers accused of illegally encroaching on the protected area.

Forest-related conflicts arise as indigenous peoples are not involved in the designation process. Forests are designated by the Forestry Minister through his decree on designation of pro-

vincial forest and waters. In the decree, forest designation is based on the result of the integration (*paduserasi*) of the provincial spatial plan (RTRWP) and the forest use consensus (TGHK). In addition, the autonomy law provides the regional governments with some flexibility to manage their respective jurisdictions. Uncertainty in the right to land results in customary forests being classified as state forests and then exploited under concessions granted for development purposes, such as forestry or mining. The status of customary land is not taken into account at all when the government undertakes regional spatial planning.

Law No. 26 of 2007 on Spatial Planning, however, does mention customary land and indigenous peoples. Socially and culturally speaking, customary land is important to be taken into consideration in spatial planning process. According to the explanation of article 7 paragraph 3, indigenous peoples' rights when undertaking spatial planning must be recognized as long as they are in line with existing regulations. Once again, the problem is that there is no recognition of full indigenous peoples' right to land within Indonesia's regulations.

The National Agrarian Program (PRONA) of the National Land Bureau (BPN) gives a clearer indication that the government is intentionally attempting to expropriate customary land by issuing individual land certificates. No communal land title is recognized in such certificates. To accelerate the certification process, on 16 December 2008 at the Prambanan Temple Recreational Park in Klaten, Central Java, President Susilo Bambang Yudhoyono launched a public certification service (*Layanan Rakyat untuk Sertifikasi Tanah*/LARASITA). Larasita is meant to provide a direct service to the public to obtain land certificates. In late 2008, 124 Larasita teams and 248 motorcycles were set to serve in 124 districts/cities and in 2009 another scheme was to be set in 134 districts/cities throughout Indonesia (Yudhuyono 2008).

The most deplorable aspect of government policy is that customary land (including customary forests), under communal ownership, is considered to be abandoned land. According to the government, there are currently 7.3 million hectares of "abandoned" land in Indonesia (Winoto 2010), which will be re-ar-

ranged and used in the national interest. However, in some cases, the land is actually controlled by the military and government officials. For example, in Bengkulu there are 1,200 hectares of customary forest, comprising 700 hectares belonging to the Kaur Nasal indigenous community and 500 hectares belonging to the Kaur Marga Sambat community), which is claimed by the Navy (Sulani 2010).

Conflicts in Indonesia have often been caused by uncertainty about the recognition of indigenous peoples' rights (communal land) and unclear boundaries. In 2009, 5,900 land-related conflicts were reported, 20 per cent of which were related to customary land (Saleh 2010). None of the conflicts have been resolved in a satisfactory manner.

On 14 March 2007, BPN and the National Police signed a Memorandum of Understanding (MoU) concerning land-related conflict management. Some points in the MoU threaten indigenous peoples with regard to their communal right to land. As a result of the MoU:

- Indigenous peoples' rights to communal land have been undermined. One of the provisions of the MoU is to complete certification of land belonging to the police. This means that customary land controlled by the police will be certified or will belong legally to the police;
- Indigenous peoples are criminalized when they defend their communal land. Field research shows that the police have often used their authority beyond the procedures set forth in the criminal code (KUHAP) when arresting, detaining and suing farmers, in complete negligence of the rights of the suspect, the defendant and the convicted person as stipulated in the Criminal Code (IHCS.org).

Policies on Climate Change and REDD in Indonesia

In relation to climate change, President Susilo Bambang Yudhoyono (SBY) has expressed a commitment to reducing Indonesia's carbon emissions by 26 per cent by 2020. This commitment consequently requires the government to set adequate legal regulations and institutions to achieve it.

Policies on Climate Change

In responding to climate change, President SBY formed the National Climate Change Board (DNPI), under Presidential Regulation (Perpres) No. 46 of 2008 on climate change, passed on 4 July 2008. The objective of the Board is to coordinate climate change control and to strengthen Indonesia's position in international climate control forums.

DNPI is headed by the President and assisted by the Coordinating Minister of People's Welfare (*Menko Kesra*) and the Coordinating Minister of Economy (*Menko Perekonomian*). The members comprise governmental officials, namely 17 ministers and the head of the Meteorology and Geophysics Agency. Ir. Rahmat Witoelar is appointed Executing Manager for the day-to-day operations of the Board.

The DNPI is assisted by several working groups, namely: Working Group on Adaptation, Working Group on Mitigation, Working Group on Technology, Working Group on Funding, Working Group on Post Kyoto 2012, and Working Group on Forestry and Land Use Change. In 2007, DNPI published a national action plan to address climate change (RANMAPI) to guide governmental agencies to coordinate and integrate climate change mitigation and adaptation measures in various sectors.

In the forestry sector, the Forestry Department has formed Working Group on Climate Change, through the Minister's Decree (KEPMENHUT) No. SK. 13/Menhut-II/2009, passed on 12 January 2009. The head of the working group is a Ministerial Adviser on partnership. In general, the working group has the duty to provide input to the Forestry Minister regarding policies on, and processes and mechanisms of the mitigation and adaptation measures of the Forestry Department. The department's advisers assists the working group regarding institutional, environmental and safeguard.

In mitigating climate change, the Forestry Department specifically formed Working Group on REDD through the decree of the head of Forestry Research and Development (Balitbanghut) No SK. 5/VII-Set/ 2009 passed on 13 February 2009. The working group has the duty to provide recommendations on the implementation plan of REDD in Indonesia.

Policies on REDD in Indonesia

Currently, there are at least three policies that directly regulate REDD in Indonesia. They are Forestry Minister Decree No. P.68/Menhut-II/2008 on the implementation of Demonstration Activities (REDD), Forestry Minister Decree No. P.30/Menhut-II/2009 on REDD procedures, and Forestry Minister Decree No. P.36/Menhut-II/2009 on the licensing of carbon absorption or carbon storage in production and protected forests (*Tatacara Perijinan Usaha Pemanfaatan Penyerapan dan atau Penyimpanan Karbon pada Hutan Produksi dan Lindung*). Indigenous peoples' participation has been completely excluded from the entire process, from design up to issuance.

1. Forestry Minister Decree No. P.68/Menhut-II/2008 on implementation of Demonstration Activities – REDD (DA-REDD)

On 12 December 2008, the Forestry Department issued Forestry Minister Decree No P.68/Menhut-II/2008. Conceptually, the decree regulates "readiness" to implement REDD in Indonesia through Demonstration Activities -Reducing Emission from Deforestation and Forest Degradation (DA-REDD). The demonstration was a pilot implementation of REDD methodology, technology and institutions in Indonesia. There are several critical notes to the policy with regards to the participation of indigenous peoples in this "readiness" process.

Politically, the decree does not address indigenous peoples' rights to the forest. It mostly deals with DA-REDD and does not consider any associated problems which may arise from the designation of forest status. The government doesn't see any problem with designating forest status so that DA-REDD can continue despite the absence of recognition of indigenous peoples' rights to forest. As a matter of fact, the forest status has caused many unresolved conflicts which are noted in the section on "problems with land tenure in Indonesia" above.

Economically, the decree does not guarantee that indigenous peoples will get their fair share of profit derived from DA-REDD. Incentives are determined by the project initiators, and indigenous peoples have no way of determining how much they will get for the economic loss that they suffer from the scheme. If there are indeed incentives for indigenous peoples, they might

trigger inter-communal conflict between those who support the scheme and those who do not.

Both socially and culturally, no democratic measures are in place for indigenous peoples to make a decision on whether to allow DA-REDD over their territory. The policy leaves no room for indigenous peoples to reach a consensus of whether or not to accept the activity. The decision to accept or reject DA-REDD over customary forests is made by the Forestry Minister, without having to obtain indigenous peoples' consent. It is a top-down decision making process, which does not allow indigenous peoples to participate. Indigenous peoples are merely the object of the project and they are completely excluded from the decision-making process.

The decree does not adopt principles of Free, Prior, and Informed Consent (FPIC). Not one single article in the decree mentions indigenous peoples' right to prior information on DA-REDD on their territory. Therefore, they do not have any information about the scheme or decisions on DA-REDD. The decree also does not consider gender issues, thus excluding women from the decision-making process.

2. Forestry Minister Decree No P. 30/Menhut-II/2009 on REDD Procedures

On 1 May 2009, the Forestry Minister issued Forestry Minister Decree No. P. 30/Menhut-II/2009 on REDD procedures. The decree aims at reducing deforestation and forest degradation in order to mitigate climate change. Through the decree, the government attempts to demonstrate its readiness to fully implement REDD in Indonesia (post 2012) with regards to policies. The policy states that REDD will be implemented in areas that have been granted a Timber Utilization Permit (natural forests, plantation forests, community-based forests, community plantation forests and restoration), forest management integration unit (production, protected, conservation forests), conversion forests, customary forest, privately-owned forests and village forests.

It is almost certain that the policy will completely neglect indigenous peoples' rights to the forest as the substance only refers to laws that do not recognize indigenous peoples' rights.

The decree, in line with previous government policy, does not see any conflict between indigenous peoples and the state with regards to the legal status of the forests.

During its development, suggestions were made to recognize indigenous peoples' rights. During the public consultation on the draft, on 25 March 2009 the Secretary General of AMAN, suggested four improvements to the draft, as follows:

1. REDD-related regulations must respect rights enshrined in the 1945 Constitution and international basic human rights standards set forth in the UN Declaration on Rights of Indigenous Peoples (UNDRIP);
2. Indigenous peoples' effective participation must be secured in the entire REDD process;
3. Free, prior and informed consent (FPIC) principles must be applied to any REDD project that takes place on customary territories;
4. Adequate support must be in place for indigenous peoples and customary organizations to map their territories, build their capacities to revitalize their indigenous institutions and uphold customary laws in the management of land, territories and natural resources on them (Huma 2009).

None of these suggestions were accommodated. The July 2008 draft was even issued without any change to accommodate indigenous peoples' rights and concerns. Indigenous peoples' rights to the forest are completely neglected.

The decree does take into account the benefit-sharing between national and international entities. The national entities include IUPHHK holders, the states' forest managers, and owners or managers of privately-owned forests. International entities include financiers of REDD.

Indigenous peoples are not counted as an "important national entity." This classification only applies to those holding certificates, legal documents or decrees (of the Ministry of Forestry or of regional governments) showing that they are legally and officially recognized by the state as REDD managers/ implementors. As almost all indigenous peoples have no man-

agement permit, they are not classified as a national entity. They are only the "spectators" or the object of REDD. They are even in danger of being displaced from their customary forests. Ironically it is the license holders, those that suppress indigenous peoples' rights, who will be the ones to enjoy these incentives.

3. Forestry Minister Decree No. P.36/Menhut-II/2009 on Licensing of Carbon Absorption or Storing in Production and Protected Forests

On 22 May 2009, the Forestry Minister issued Forestry Minister Decree No P.36/Menhut-II/2009, which regulates environmental service utilization (IUPJL type) permit granted over production and protected forests for the storage and absorption of carbon. The activities can be undertaken in the forest with or without permits. Carbon Absorption (RAP-KARBON) through REDD schemes place emphasis on increasing the number of forest stands, whereas Carbon Storing (RAN-KARBON) through the Clean Development Mechanism (CDM) focuses on maintaining, protecting and securing forest area. Annex II of the decree lists benefit sharing (incentives) as follows:

Table 8: Distribution of benefits of REDD programs in Indonesia

No	License holders	Distribution		
		Government	People	Developer
1.	IUPHHK-HA		20%	60%
2.	IUPHHK-HT	20%	20%	60%
3.	IUPHHK-RE	20%	20%	60%
4.	IUPHHK-HTR	20%	50%	30%
5.	Community Forest	10%	70%	20%
6.	Community-based Forest	20%	50%	30%
7.	Customary Forest	10%	70%	20%
8.	Village Forest	20%	50%	30%
9.	KPH	30%	20%	50%
10.	KHDTK	50%	20%	30%
11.	Protected forest	50%	20%	30%

Table 8 indicates that the managers of customary forests (indigenous peoples) will obtain 70 per cent of the benefits. The fact, however, is that it is extremely difficult for indigenous peoples to obtain this concession. Licensing is regulated by the relevant regional government. With increased regional autonomy in Indonesia, regional governments assume full control over their jurisdictions. As a result, almost all forests have had concessions granted over them.

In addition, many concessions over customary forests (IUPHHK, oil palm plantations, etc.) are in a state of conflict with the local indigenous peoples. The new conditions will only serve to make it difficult for indigenous peoples to obtain permits (which are unnecessary) on their own land. This lack of clarity indicates that the 70 per cent share of incentives for indigenous peoples is merely an illusion.

A controversy over carbon emission reductions

On 16 February 2009, via the Minister of Agriculture, the government issued Ministerial Decree No. 14/Permentan/PL. 110/2/2009, which regulates the use of peatland for oil palm cultivation.

In the context of carbon emission reduction, the decree is controversial given the fact that oil palm plantations are among the major contributors to deforestation in Indonesia. Emission reduction should have encouraged the government to avoid land conversion. Instead, the decree provides a legal basis for regional governments to convert peatland into oil palm plantations. It should be noted that peatland contains some of the largest carbon stores in the world, which means that its conversion will release large amounts of carbon into the atmosphere.

This policy reaffirms that REDD schemes in Indonesia will deprive indigenous peoples of their rights to forests and access to natural resources contained within them. In the name of productivity improvement, oil palm plantations will have the legal basis to displace indigenous peoples from their own land.

Women and REDD Policies in Indonesia

Women in Indonesia are among the most marginalized groups regarding REDD policies in Indonesia. Not only are their rights to forests and natural resources neglected, their basic rights to decision-making are also neglected. REDD policies systematically push aside their roles and deny any room for them.

Existing policies do not consider women to be an integral part of those affected by REDD implementation. In actual fact, women collect fruit and vegetables from forests more than men do. For example, the indigenous women of Simpang Hulu Subdistrict in Ketapang District go into the forest every day to collect fruit and vegetables to be sold or consumed. Loss of access to forest resources has often forced women to take up work as poorly paid workers for oil palm companies. REDD policies in Indonesia have the potential to eliminate rights to customary forests, which will greatly undermine women's access to forest resources.

On 24 July 1984, the government of Indonesia ratified the Convention on Elimination of any Discrimination Against Women (CEDAW) through Law No. 7 of 1984. However, the lack of implementation of the law leads many to believe that the law does not provide enough protection against discrimination, particularly potential discrimination stemming from REDD processes.

Indigenous Peoples' Position in Indonesia's Law and Policy

For indigenous peoples to fully participate in REDD processes, a clarity of law must be in place, however, the complexity of laws relating to forest use and management, including REDD, negatively affect indigenous peoples' lives in Indonesia in a major way. In this case, what is the legal position of indigenous peoples in Indonesia?

If the state does not recognize us, we will not recognize the state (First AMAN Congress 1999).

This statement is still relevant in helping to answer the question of what the legal position of indigenous peoples in Indonesia is. This statement was the basic perspective of the congress of Indonesia's indigenous peoples held on 17 March 1999. This view is not an exaggeration, given the fact that the very existence of indigenous peoples is still unclear in Indonesia's laws, despite that they are one of the largest populations and a major developing element in the nation. Even today they continue to be marginalized and excluded in the development in their own land.

Oppression of all aspects of indigenous life are commonplace—in the economic, political, legal and sociocultural realms. Almost all decisions concerning national development (in customary territories) have neglected indigenous peoples' rights, and they are even systematically excluded from decision-making and development processes.

Efforts to exclude indigenous peoples can be seen by the application of discriminatory definitions such as "isolated people," "primitive people," "illegal encroachers" and others. This stigma is intentionally created in order to ruin the morale, economy, politics and social and cultural identities of indigenous peoples.

The founding fathers of Indonesia did recognize the existence and the rights of indigenous peoples, which is clearly indicated by the national motto "*Bhineka Tunggal Ika,*" which means "unity in diversity." Constitutionally, the state also recognizes indigenous peoples' rights in article 18B paragraph 2, and article 28I paragraph 3 of the 1945 constitution. In addition, MPR Decree (TAP MPR) No. IX/MPR/2001 regulating agrarian reform and natural resource management also recognizes indigenous peoples' rights.

Within technical and operational laws indigenous peoples' rights are also recognized, for example, in a relatively new law that recognizes the existence of indigenous peoples: Law No. 27 of 2007 on Coastal and Small Island Management and Law No. 32 of 2009 on Environmental Protection and Management. Both

of these laws, however, still are not strong enough to entirely secure indigenous peoples' rights, as they are sectoral in scope.

In relation to REDD, both laws are still weak in securing indigenous peoples' rights because REDD policies and forestry policies neglect or even tend to nullify indigenous peoples' rights.

The nullification of rights to forests can be further seen in laws requiring "recognition." Forestry Law No. 41 of 1999 states that the indigenous communities, as long as they exist and are recognized, shall have the rights to:

- collect forest products for daily needs of concerned communities;
- undertake forest management in accordance with prevailing customary laws which are not in direct contradiction to national laws; and,
- be empowered for improving their welfare;
- The confirmation of indigenous peoples' existence and the abolishment of the customary law community as referred to in paragraph (1) shall be stipulated in Local Regulation; and,
- That further provisions as referred to in paragraph (1) and paragraph (2), shall be regulated by a further government regulation.

Such requirements show that the government does not wholeheartedly recognize indigenous peoples. In fact, proving indigenous rights according to these criteria requires academic involvement and requirements that are hard to meet. Even though it is mentioned in various laws, data on indigenous peoples and their customary territories/forests is not recorded anywhere by the state, particularly by the Forestry Department.

In addition, the sentence "...as long as they exist and are recognized" is continuously reinforced when the state defines indigenous peoples. It suggests that the existence of indigenous peoples may be terminated after a period. (Please see Annex for a listing of policies in which "indigenous peoples" are mentioned (despite the use of different terms indicating "indigenous peoples.")

THE REDD PROCESS AND MECHANISM IN INDONESIA

For a developing country like Indonesia, climate change mitigation refers to a measure to increase forest capacity, particularly to absorb and store carbon. This is related to international schemes to address climate change. In general, there are three climate change mitigation measures to be taken by the government of Indonesia, namely: 1) increasing carbon absorption through planting, 2) increasing the forest ecosystem's resilience to climate change by maintaining carbon stocks through conservation activities, and 3) reducing carbon emission from deforestation and forest degradation through REDD schemes.

What is REDD? REDD or Reducing Emission from Deforestation and forest Degradation is an international (voluntary) incentive scheme in which Annex I parties (industrialized countries such as USA), pay a sum of money to developing countries with vast forest cover, such as Indonesia, for reducing emission from deforestation and forest degradation. The incentive is meant as a "compensation" for the economic loss from not felling trees (deforestation) or avoiding felling trees. The incentive might take the form of funding, technology transfer and or capacity building to maintain forests (REDD initiative).[10]

The idea was first discussed in 2005 during the 11th Conference of Parties (COP) of The United Nations Framework Convention on Climate Change (UNFCCC) in Montreal, Canada. In the conference, Papua New Guinea and Costa Rica proposed "paying" someone or a country for not felling trees so that carbon or GHG emission from deforestation could be reduced. The concept was then known as RED or Reducing Emission from Deforestation, and received support from the participating countries, including Indonesia.

Discussions on RED continued during the 13th COP in Bali in 2007, in which many thought that forest degradation should be added to the RED scheme, turning it into REDD. Forest degradation also contributes to carbon emissions.

In addition to REDD, there was a proposition that someone or a country planting trees and maintaining his/its forests should also receive payment because the activities could increase forest

capacity to absorb carbon from the atmosphere and to maintain carbon stock. Hence, the term REDD+ was introduced. However, REDD/REDD+ procedures/methodologies have been unclear and are still being discussed within the UNFCCC.

In 2009, the 15th COP in Copenhagen tried to clarify REDD/REDD+ substance. The substance was not to be decided on then but in the 16th COP in Mexico in December 2010. The Copenhagen meeting only produced a non-binding document popularly known as the "Copenhagen Accord." The accord contains funding commitment from Annex I parties to REDD activities in developing countries.

REDD Readiness Strategies

Despite unclear substance, the Government of Indonesia has expressed its enthusiasm for REDD due to its financial benefits. Even prior to the 13th COP, the Government of Indonesia had carried out a quick analysis to demonstrate its readiness for REDD, in terms of methodology and policy.

In 2007, the Forestry Department formed the Indonesian Forest Climate Alliance (IFCA), which served as the umbrella organization or a forum for the stakeholders to communicate and coordinate REDD issues, including the progress and the outputs of the on-going study on REDD.

With funding support from the World Bank, and the governments of Britain, Australia and Germany, IFCA carried out a study on REDD under the coordination of the Forestry Department, involving national and international experts. In 2009, the Forestry Department issued a report entitled "IFCA Consolidation Report: REDD in Indonesia." In general, the IFCA's study recommends some follow-up actions, as follows:

1. Developing the initial framework set by IFCA;
2. Continuing technical consultations and analyses;
3. Testing and implementing pilot projects in various conditions (DA-REDD);
4. Carrying out capacity building at all levels;

5. Creating a credible national framework for emission reduction that can be verified;
6. Creating concrete GHG emission reduction.

REDD was accepted in the 13th COP as climate change mitigation measure and was incorporated into "Bali Action Plan." At this occasion, the Government of Indonesia communicated the REDD concept, which was divided into three phases:

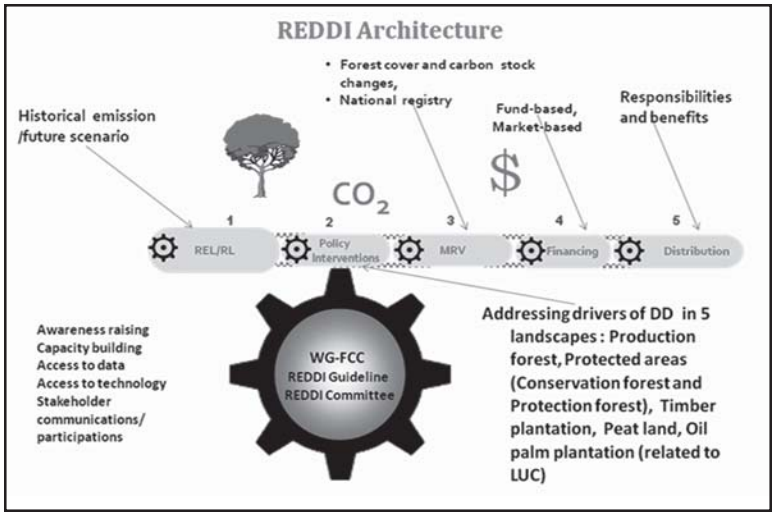
- *Phase 1 (Preparation Phase):* Identification of the status of the technology and science and related policies (2007-2008);
- *Phase 2 (Readiness Phase):* Preparation of methodological and policy tools for REDD in Indonesia (2009-2012);
- *Phase 3 (Full Implementation):* Full implementation in accordance with COP's regulations when REDD becomes part of the UNFCCC's scheme post 2012 (starting from 2013) (Departemen Kehutanan 2010).

In the preparation phase, IFCA carried out a study and analysis to prepare REDD readiness strategies in Indonesia. One of the IFCA recommendations in 2007 was carbon emission reduction strategies in five types of forests, namely: 1) production forests; 2) protected forests (conservation forests and protected forests); 3) Industrial Timber Plantations (HTI); 4) peatland; and 5) oil palm plantations (related to changes in land use).

Based on the outputs of the study, the Government of Indonesia's developed REDD Indonesia (REDDI) readiness strategy, i.e., tools (policies, methodologies, institutions, analyses) for full implementation of REDD post 2012. The REDDI readiness strategy can be seen in Figure 4.

REDD readiness strategies are carried out through national approaches and implemented at the sub-national level (Province and District). *At the national level,* there are five main activities, namely: (1) policy intervention to address the drivers of deforestation and forest degradation on five landscapes; (2) issue of REDD-related policies (Permenhut No. P.68/Menhut-II/2008, Permenhut No. P.30/Menhut-II/2009, and Permenhut No. P.36/Menhut-II/2009); (3) Preparation of REDD methodology

Figure 4. REDD Readiness Strategy in Indonesia



Source: Nur masripatin, "Kebijakan dan Program REDD di Indonesia serta Hak Masyarakat Adat," (presented in FPIC Seminar, AMAN, Jakarta 15 March 2010).

(one being a collaboration with Australia), namely: setting Reference Emission Level (REL) and building Measuring, Reporting, and Verification (MRV) system; (4) Institutional preparation, namely national registration, funding, distribution of incentives and responsibilities, capacity building, communication-consultation-coordination with stakeholders; and (5) relevant analysis (REL, MRV, cost benefit analysis, risks, impacts, etc.) in cooperation with the World Bank's funding program, i.e., the Forest Carbon Partnership Fund (FCPF). *At the sub-national level,* there are three main activities, namely, (1) methodology preparation (setting REL and developing MRV system); (2) Institutional capacity building, namely distribution of incentives and responsibilities, capacity building, communication-consultation-coordination with stakeholders; and (3) development of Demonstration Activities (DA) and Voluntary Carbon Project (VCP)(Departemen Kehutanan 2010). At provincial level, DA REDD will be carried out in cooperation with the Government of Australia (IAFCP), and at district level, with the Government of Germany, ITTO, and TNC. The DA and VCP activities will be further discussed below.

The REDD readiness strategy is a pilot tool to prepare a carbon trade mechanism. The mechanism as it currently stands has a particular weakness in that many are worried it will be nothing other than the continuation of free trade practices that are unfair to Indonesia's indigenous peoples. A free trade in carbon will only increase forests' commercial values and adversely affect indigenous peoples, because carbon will be treated as a commodity, causing new conflicts and enmity between indigenous peoples and the government and the managers as well as among indigenous peoples themselves. Therefore, REDD readiness strategies need to be critically scrutinized from indigenous peoples' perspectives. From indigenous peoples' point of view, REDD will bring adverse impacts if their rights to customary forests are not recognized by the government. What are the reasons for this?

First, indigenous peoples have no rights to carbon under the current legal framework. Carbon is related to forests and soil, so no right to forests means no rights to carbon. In fact, whoever owns forests is entitled to make decisions on their management and use, including that of carbon.

Second, there are no transparency and indigenous peoples' participation in policy-making and decision-making on REDD. Indigenous peoples are completely excluded in the process. They do not know anything about existing policies and its impacts on their daily lives.

Third, indigenous peoples do not know what the goods or services to be produced from the carbon trade are, or how to calculate it. Indigenous peoples know nothing about these complicated and scientific calculations or the mechanism used to facilitate the trade, regardless of whether it is beneficial or disadvantageous. In fact, the carbon trade also means a trade of forest or territory. A wrong decision will mean the indigenous peoples' loss of their customary forest.

Fourth, law enforcement is poor and not on the side of indigenous peoples; it often fails to control the products and services produced. Implementation at a local level and all associated frauds cannot be addressed, and this will suppress indigenous peoples.

Fifth, indigenous peoples as forest owners will not receive fair benefits from REDD. Distribution of the benefits is to be determined by the managers, so that indigenous peoples cannot determine the amount of incentives equal to the loss that they suffer. Although they receive incentives they know nothing of the consequences—that they may lose their customary forests and access to the resources contained in them. In addition, horizontal conflicts may arise if there is disagreement among the members.

If indigenous peoples do not benefit from REDD or carbon trading, then who will? The basic concepts of REDD in Indonesia are planting, maintaining the existing forests and avoiding deforestation and forest degradation. This means that REDD will specifically be implemented on established forests, protected forests, sustainably managed forests, and forests to be cleared. Below are the concepts and their corresponding would-be beneficiaries:

1. The planting concept will benefit plantations. Here, the inclusion of oil palm into REDD schemes would be a mistake. While oil palm stores carbon, it causes deforestation. In addition, the most potential beneficiary is the regional government that initiates the planting program, through the "1 billion trees a year" program;
2. The sustainable management concept will benefit the managers of sustainable forest management such as timber concessions, community-based forests, community plantation forests, and village forests;
3. The conservation concept will benefit the government, BKSDA, National Park Office, conservation NGOs and conservation communities;
4. The deforestation concept will benefit timber utilization permit holders such as IUPHHK holders or timber companies. These groups potentially get the benefits as they allegedly cause deforestation. Considering that one of the objectives of REDD is to reduce the rate of deforestation, loggers or logging companies will be negotiated with to avoid deforestation. In addition, conservation NGOs will potentially benefit from the concept because

they can promote the reduction of deforestation and forest degradation (Steni 2010).

Stakeholders and Key Players in REDD

REDD stakeholders in Indonesia

What is meant by stakeholders here is all parties which have an interest, direct or indirect, in REDD implementation in Indonesia. Lists of the stakeholders can be found in Forestry Minister Decree No. P.38/Menhut-II/2008, Forestry Minister Decree No. P.30/Menhut-II/2009, and Forestry Minister Decree No. P.36/Menhut-II/2009. All three decrees explicitly mention the stakeholders in Demonstration Activities of REDD, REDD implementation, and environmental service utilization permit (IUPJL). Table 9 gives the list of the stakeholders.

As can be seen from the table, indigenous peoples are not considered as the rights holder, or even to be one of the stakeholders who have the right to decide whether to accept or reject REDD schemes involving their customary forests. To be able to participate in REDD, indigenous peoples have to have decrees, certificates or letters of recognition of forest management issued by the Forestry Minister or the relevant regional government. The fact is that so far there have been only two regions that actually issue such letters for indigenous groups, namely Banten (through a by law on the Baduy's customary [*ulayat*] right) and Kampar. This means that in most regions, indigenous peoples are not considered to be the legal owners and managers of customary forests and can only observe REDD implementation in their territories. Customary forests have the same legal position in both REDD policies and the National Law No. 41/1999 on Forestry.

Table 9. Stakeholders in REDD in Indonesia

No	Stakeholder	Note
Demonstration Activities (DA) REDD		
1	Ministers	The minister responsible in the forestry sector. Accepting or rejecting a proposed DA REDD is determined by the Minister without any obligation to conduct consultation with other parties. The Minister commissions the climate change and REDD working group within the Forestry Department to conduct a feasibility study of a proposed DA-REDD.
2	Initiators	Individuals or organizations can apply to the Minister to implement DA REDD. DA REDD initiators in Indonesia are the government (provincial and district), IUPHHK holders, privately-owned forest managers, customary forest managers, and heads of forest management units
3	Partners	The government, international bodies, private entities and individuals capable of funding DA REDD implementation in Indonesia.
REDD Implementation		
1	Ministers	The minister responsible in the forestry sector.
2	REDD Commissions	Commissions formed by the Minister and commissioned to deal with REDD
3	Independent assessors	Institutions entitled to verify REDD's activity report
4	Regional governments	Governors, regents, district heads and or mayors, and regional government's officials
5	National registration	Institution commissioned to register all REDD activities
6	National entities	REDD executing managers, comprising IUPHHK holders, state's forest managers or privately-owned forest managers
7	International entities	Funding partners
8	Focal Points	State's representatives commissioned to communicate with UNFCCC's Secretariat

Environmental service use permit (IUPJL)		
1	Ministers	The minister responsible in the forestry sector.
2	General Director	The General Director of Forest Production Management Agency (Bina Produksi Kehutanan)
3	Provincial and District/City agencies	Provincial and District/City agencies responsible in the forestry sector
4	Executors	IUPHHK holders (on natural forests, restoration forests and production forests)

REDD's key players in Indonesia

In general, the key players involved in REDD in Indonesia are the government, government-formed agencies and international institutions or NGOs assisting the government of Indonesia to implement REDD. Table 10 gives details of the key players in REDD in Indonesia.

The table clearly displays that REDD processes are made up of top-down approaches. Top-down approaches are often criticized for not being transparent and for excluding indigenous peoples' participation in decision and policy-making processes. Such methods do not fully include indigenous peoples in the proposed REDD processes and mechanisms. Indigenous peoples are only involved in limited socialization processes, and are not given room to make decisions. The problem is that this socialization is often used as evidence of indigenous peoples' participation in REDD processes.

The government of Indonesia completely excludes women's participation in climate change mitigation measures, indicated by the exclusion of the Ministry of Women's Empowerment from the National Climate Change Board (DNPI) (Satura 2010).

Table 10. REDD's key players in Indonesia

No.	Institution	Function
The government		
1	The Ministry of Forestry	Responsible for the overall management comprising improvement and management of public access to forestland. Focal Point at UNFCCC for Indonesia. Forming IFCA.
	1.a The National Planning Board (BAPLAN)	Responsible for the forest resource inventory system that will be integrated into the national carbon accounting system to monitor carbon content in forests. The reports will serve as the basis of monitoring, assessment and reporting for REDD with regard to GHGs. BAPLAN is the main player in REDD preparation within the Forestry Department
	1.b FORDA (Forestry Research and Development Agency/Badan LITBANG di Kehutanan)	FORDA is managed by IFCA. Leads the development of REDD methodology and concept. FORDA has carried out a study on various aspects of REDD via working groups.
	1.c Directorate general of Forest Production Management (BPH)	Responsible for the management of production forests and forestlands. Sets the production targets and determining the use of production forests
2.	The Ministry of Environment (KLH)	KLH plays at EIA implementation level and environmental concession service. KLH also serves as a focal point for UNFCCC
3	The Coordinating Ministry of Economy (*Menko Perekonomian*)	Responsible for mainstreaming climate change into Indonesia's development policies.
4	The National Development and Planning Body (BAPPENAS)	Responsible for coordinating the implementation of bilateral and multilateral aid projects comprised in the REDD pilot project funded by AusAID and BMZ. Responsible for the overall development coordination including managing financial/ technical assistance and development partners.

5	The Ministry of Public Works / Directorate General of Spatial Plan	Responsible for spatial planning and monitoring of the implementation of Law No. 26 of 2007 on Spatial Planning.
6	The Ministry of Agriculture	Manages state-owned plantations (PTPN) and responsible for palm production development in Indonesia.
7	The Ministry of Commerce	Responsible for commercial affairs related to pricing and trade volume policies of palm oil, pulp and paper, plywood, and other forest products.
8	The Coordinating Body of the National Survey and Mapping	Responsible for updating and managing spatial data and mapping of all Indonesia's areas.
9	Provincial and district governments with special autonomy (such as Aceh and Papua)	Special autonomy laws give authority to regional governments to control their respective forest management.
Government-formed agencies		
1	Indonesian Forest Climate Alliance (IFCA)	Formed by the Forestry Department as a forum for creating a synergy between REDD-related measures/initiatives and other initiatives positively contributing to the REDD-related measures. Based on IFCA's study, REDD readiness strategy has been developed in Indonesia.
2.	The National Climate Change Board (DNPI)	DNPI consists of six working groups of governmental officials to handle adaptation, mitigation, technology transfers, finance, forestry and post-Kyoto goals. Coordinating the implementation of climate change management and strengthening Indonesia's position in international forums. Currently, DNPI has developed the National Plan to Address Climate Change in Indonesia (RANMAPI)

3.	Climate Change and REDD working groups within the Forestry Ministry	Formed by the Forestry Department and commissioned to provide the Minister with input about policies, strategic plans, program implementation and to facilitate stakeholders' initiatives related to climate change adaptation, mitigation, and technology transfers, as well as the Clean Development Mechanism and REDD.
International Institutions/NGOs		
1	Centre for International Forestry Research (CIFOR)	Conducts in-depth assessment on the causes of deforestation in Indonesia
2	World Agroforestry Centre (ICRAF)	Conducts studies on cultivation development systems and its impact on landscapes.

Source: The World Bank Indonesia REDD Team – Developing a Market for REDD in Indonesia.

REDD Projects in Indonesia

Demonstration activities

On 6 January 2010, the Minister of Forestry, Zulkifli Hasan, officially signed the launch of Demonstration Activities Reducing Emission from Deforestation and forest Degradation (DA-REDD) at the Gedung Manggala Wanabakti, Department of Forestry. The program launched is a collaboration between the government of Indonesia and the governments of Australia and Germany, the International Tropical Timber Organization (ITTO), and The Nature Conservancy (TNC). Below are brief explanations of the four activities of the DA-REDD.

1. Indonesia - Australia Forest Carbon Partnership (IAFCP)

IAFCP is a forest carbon partnership between the government of Indonesia and the government of Australia. On 13 June 2008, the heads of state (Indonesia's President and Australia's Prime Minister) signed the agreement, with the program duration from 2008 to 2012 and the contract value AUD40 million (plus an additional AUD30 million). The cooperation covers three main fields, namely: policy development and capacity building

to support the two countries in international negotiations and future carbon trade; the provision of technical assistance for Indonesia in the development of forest carbon calculation system and its monitoring tool; and the development of demonstration activities and regulations related to support for pilot REDD approaches.

The partnership aims at reducing GHG emission in Indonesia significantly and effectively by reducing deforestation, encouraging reforestation and improving sustainable forest management. These are to be achieved through two different DA REDD programs in two locations, namely:

a. Peatland

The Kalimantan Forest Carbon Partnership (KFCP) is a DA REDD focusing on peatland. The target location is the 120,000-hectare peatland in Kapuas District, Central Kalimantan; to be precise, on the northern Block A and Block E of the ex-peatland development area (PLG), with peats depth of more than three meters. Administratively, the area covers two sub-districts, Mentangai and Timpah.

KFCP is the world's first DA REDD on peatland. The government of Australia disbursed AUD40 million for the program. The target is to reduce GHG emission from peatland through improved forest management, fire prevention, rehabilitation of the hydrology system. Several institutions are involved in KFCP, namely Borneo Orangutan Survival-Mawas Program (BOS-Mawas), Care, Wetsland International Indonesia Program (WI-IP), and the University of Palangkaraya.

b. Mineral-rich forest

The second demonstration activity is focused on mineral-rich (non-peat) forestland in Merangin District in Jambi Province. Through the press release No. S. 125/PIK-I/201, the governments of Indonesia and Australia announced an AUD30 million forest carbon partnership program to be implemented in Jambi Province. DA-REDD specifically aims to tackle the threats to the mineral-rich forests of Jambi.

2. Indonesia-Germany Forest and Climate Change Programme (FORCLIME)

FORCLIME is a collaborative program between the governments of Indonesia and Germany focusing on climate change. The program was a result of bilateral negotiations (between Indonesia and Germany) in October 2007, which produced a program which focuses on climate change. Germany was committed to technical assistance for forest climate change and financial support amounting to EUR27 million. The current commitment is focused on DA REDD in Kalimantan with a district-based approach.

This DA-REDD is a forest programme (FORCLIME FC Module) that is part of FORCLIME, taking place over seven years (2010-2016) with financial commitment amounting to EUR20 million (money channel from KfW). The program is implemented in three districts, namely Kapuas Hulu (West Kalimantan), and Malinau and Berau (East Kalimantan). It aims at implementing forest conservation and Sustainable Forest Management (SFM) to reduce GHG emission and improve the conditions of communities living around the forests. Institutions involved in the program are GTZ, CIM, DED, InWEnt, and KfW.

3. Indonesia - ITTO (International Tropical Timber Organization) Cooperation

This DA REDD program is a collaborative tropical forest conservation program to reduce emission from deforestation and forest degradation and to increase carbon stock. The target location is Merubetiri National Park in east Java, which has a total carbon storage of 45 mt CO2/ha. Lasting for four years (2009-2012), the program aims to reduce emissions, maintain the existing carbon stock and increase carbon sequestration, in an effort to improve the well-being of the people living in and around the Park through involvement of the local people and related governmental agencies in the project. Other institutions involved are Lembaga Alam Tropika Indonesia (LATIN), Merubetiri National Park (TNMB), Research and Development of the forestry Department (LITBANG Kehutanan), and the Forestry Agency.

4. Indonesia - TNC (The Nature Conservation) Cooperation

The program is implemented in Berau District, East Kalimantan. It is designed to support Indonesia REDD readiness at district (sub-national) level as the integral part of the national REDD Readiness. The institutions involved at a national level are the Forestry Department, the Ministry of Environment (KLH), the National Climate Change Board (DNPI), the National Development and Planning Board (BAPPENAS), and the Department of Finance; at a provincial level, the provincial government, the Regional Development and Planning Board (BAPPEDA), Forestry Agency, and other related institutions; at a district level, the district government and other related institutions, Civil Society (Universities, NGOs, CSOs), and Donors (AuSAID, NORAD, GTZ, KfW).

Voluntary Carbon Project

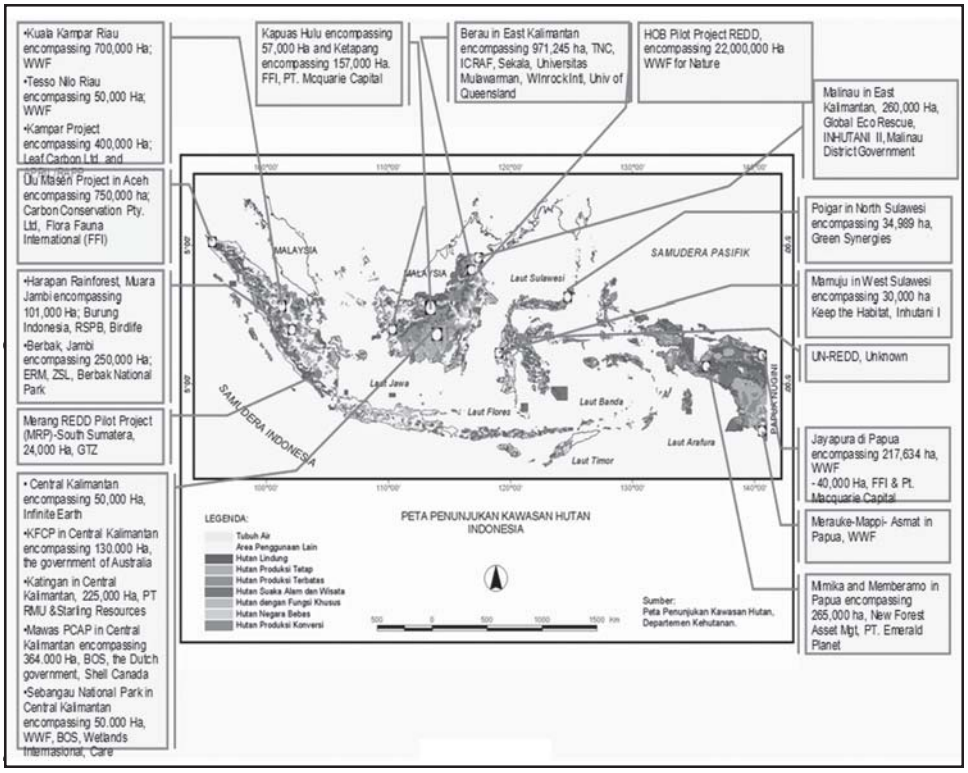
In addition to Demonstration Activities, there are a number of pilot initiatives developed in various regions of Indonesia through Voluntary Carbon Project (VCP) schemes. These are collaborative pilot projects among governments, and between the government and private entities, NGOs or universities. The target is to produce carbon credits to be traded in the carbon market.

Currently, there has been a number of demonstration programs developed throughout Indonesia. More than 20 projects have been identified. These projects are at various stages: many of the projects are still in design stage; some are being assessed; some are waiting for government's approval; and some are in the implementation stage. Some of the VCPs in Indonesia can be seen in Figure 5.

None of these VCP initiatives have come from indigenous peoples. This either indicates that indigenous peoples do not know anything about the current mechanisms related to climate change mitigation, or it is possible that they are intentionally not given the opportunity to implement REDD activities on their own.

Have indigenous peoples been involved in these VCPs? Based on the information from the ground, it can be said that the

Figure 5. REDD Projects in Indonesia



Source: The World Bank Indonesia REDD Team – Developing a Market for REDD in Indonesia; Report on Implementation of learning Workshop "Lokakarya Mengembangkan Pasar REDD di Indonesia," January 2009; and Compilation from other resources.

projects have not adopted the principles of Free, Prior, and Informed Consent (FPIC). All negotiations have been conducted by regional governments and financiers without the involvement of indigenous peoples or consultation with them.

All the projects from Aceh and Kalimantan Barat have not involved indigenous peoples in the carbon trade. No consultation has even taken place with them. In Ulu Masen, Aceh, no application of the principles of FPIC has taken place in the projects. The community of Aceh Jaya (around Ulu Masen) was unaware about REDD, so they requested for an explanation from FFI and the provincial government on the REDD program in

Ulu-Masen. Furthermore, it is reported that the communities in three large districts, namely Aceh Jaya, Aceh Besar, and Pidie, have little understanding of what REDD actually is (JKPP 2009). In Kapuas Hulu, West Kalimantan, all that the community knows is about is carbon trading, with little knowledge of what REDD projects are about (JKPP/FWI 2009).

In Mantangin, Central Kalimantan, most indigenous peoples do not know anything about the KFCP project in their territory. The socialization process that took place only involved governmental officials and customary elites namely Damang.[11] One such elite, Mr. Musie Ijamain (58 years old) a Damang in Mantangin Sub-district, says that he does not know about what REDD/KFCP program is, even though the project has been socialized. Similar opinions have been expressed by several indigenous leaders in Katunjung Village, Mantangin Sub-district, West Kalimantan.

Indigenous Peoples' View of, Action Against and Reaction to REDD

Without clarity about rights to forests, to indigenous peoples REDD is merely a new concession that will further suppress indigenous rights. As with existing concessions, REDD will only limit and even prohibit indigenous peoples from accessing forest resources. They may even be driven out of their customary forests.

Problems indicated above have pressed indigenous peoples to demand for secure rights and the application of FPIC in each REDD initiative to be implemented in their territories. Below are some views of indigenous peoples or customary institutions of REDD programs.

From 5-8 August 2009, AMAN held the National Consultation of the Indigenous Peoples of the Archipelago on Climate Change and REDD. In the consultation, AMAN asserted that indigenous peoples' rights are universally recognized and protected under the UN Declaration on the Rights of Indigenous Peoples, and are nationally recognized and protected in Article 18b and 28i of the 1945 Constitution, in Law No. 27 of 2007 on

Coastal and Small Island Management as well as MPR Decree No. 9 of 2001 on Agrarian Reform and Natural Resource Management. AMAN, as an indigenous people's organization has articulated some views in relation to REDD:

- It asserts that all initiatives to adapt and mitigate climate change must be based on the principles of Free, Prior and Informed Consent (FPIC), must hold consultation processes, and must secure indigenous peoples' participation in decision making processes;
- It states that all REDD initiatives must provide secure recognition and protection of indigenous peoples' rights, including protection of rights to customary land and territories, ecosystems, and must bring maximum benefits to indigenous peoples;
- It agrees and asserts that without guarantees to these rights, indigenous peoples reject all kinds of REDD implementation and other climate change mitigation initiatives;
- Specifically, it urges the World Bank to implement the UN Declaration on the Rights of Indigenous Peoples in its REDD-related policies and to promptly hold consultations with indigenous peoples in Indonesia (See Sinarresmi Declaration, 8 August 2009).

In Port Numbay on 19-21 November 2009, Papua's civil society held the first Papua Forest Congress, attended by more than 200 people comprising NGO activists, religious leaders, customary leaders and Papua women. The congress produced a declaration expressing the Papuan community's view of carbon trade in customary territories. Entitled "Save Papua's People and Forests" the declaration states in point 8 that: "All kinds of activities and initiatives of carbon trade and carbon compensation that do not respect the rights of Papua's indigenous peoples must be terminated."

On 14 December 2009, the writer held a Focus Group Discussion (FGD) with several members of the indigenous Dayak Kualatn, Pendaun Village, Simpakng Hulu Sub-district, West Kalimantan. The FGD was held in Mr. Mario's house (Pendaun

villager) and attended by 18 people comprising the village head, community/indigenous leaders and women. They state:

> *Whatever activities are offered in our area, the important thing is that our rights are recognized. We are not maintaining our forests for REDD but for our own sake;*
>
> *The community does not expect much from REDD as the mechanism and regulations are still unclear;*
>
> *The community is not ready yet, so whatever incentive from REDD could divide our community;*
>
> *If the incentive is true and we must take it, it must be used to develop our communities in the way that we choose.*

In general, the indigenous Adat Dayak Ngaju in Central Kalimantan rejects carbon trading schemes over their territory. The indigenous Dayak Ngaju, who depend on the peatland of Central Kalimantan, reject the carbon trading scheme as a way to conserve their forests and refer to the scheme as a kind of colonialism (Down to Earth 2009). In fact, the community does not agree with such programs in their territories (including KFCP) if their land remains classified as the state's land. The land belongs to the indigenous adat Dayak Ngaju of Mentangin, Central Kalimantan. In addition, the community of Mantangin has little knowledge of the program to be implemented in their area. "The community is confused about the programs because so many programs have been coming to Mantangin" (Karben 2010).

ISSUES AND CHALLENGES FOR INDIGENOUS PEOPLES IN RELATION TO REDD

Traditional Knowledge-based Climate Change Mitigation

One good solution to mitigate climate change is to change current high carbon production and consumption patterns to low carbon ones, such as those practiced by indigenous peoples. With their traditional wisdom, indigenous peoples have proved that they can sustainably maintain their forests and the carbon stock contained in them.

To indigenous peoples, forests are part of their lives. If forests are destroyed, they will suffer. Therefore, climate change mitigation is a must-do practice for indigenous peoples. There are several sound reasons that make climate change mitigation part of their customary obligations.

First, indigenous peoples have a stronger motivation and more incentives to protect their forests than other community groups. To indigenous peoples, forests are not merely a source of economy but a part of their political and cultural identity. To them, forests are inherited from their ancestors and their responsibility to take care to maintain; should they not take care of them, their ancestors will get angry and bad luck will come.

Second, indigenous peoples possess traditional knowledge (commonly referred to as local wisdom) to preserve and use forest resources in a sustainable way. The knowledge is passed down for generations. Among the local wisdom are *Sasi Hutan* in Moluccas, *Awig-awig* in Bali and West Nusa Tenggara, *Hukum Giwu* in Central Sulawesi, *Hukum Rurukan* in Kasepuhan Banten Kidul, *Timawakng / Tembawang* in West Kalimantan, *Pa'h Kudor* and *Do'b* in Enggano, and *Panggale Yopo Nafu* in Togean to name a few.

Third, indigenous peoples possess their own laws and customary institutions to enable them to take care of and regulate their harmonious interaction with the surrounding environment. In general, indigenous peoples have customary forests so sacred to them that to utilize them they have to hold a ritual asking for permission from the "inhabitant."

Fourth, indigenous peoples have their own system of land tenure, including that of customary forests, which maintains a dynamic balance between individual rights as a member of the community and collective rights as an autonomous customary entity (See boxed article).

Local Wisdom-Based Climate Change Mitigation of the Indigenous Dayak Kualatn of Pendaun Village

1. Motivation to protect forests

To the indigenous Dayak Kualatn of Pendaun Village, Simpakng Hulu Sub-district, Kapuas District, West Kalimantan, forests are a source of livelihood and used not only to fulfill their daily needs but also to practice traditional rituals and to preserve their cultural heritage. They rely on rubber sap and fruit for their daily lives. They also grow fruit-bearing trees, rice and hard crop (crops to be sold) trees.

Based on the functions, forests are classified into four groups, namely:

1. *Torunt*, categorized by size into two: the larger is called *Rimba Magong*, and the smaller is called *Rimba* or *Rimba Biasa*;
2. *Bawas/Jamih*, categorized by age into two: *Bawas Muda/Jamih Mongot*, forests of 1-4 years of age, and *Bawas Tua/Jamih Muntuh*, forests of five years and above of age;
3. *Tembawang*, ex-cropland and ex-housing complexes that are now grown by fruit-bearing trees or other hard crop trees;
4. *Gupongh*; forests not utilized due to their specific functions such as maintaining springs. Gupongh usually contains fruit-bearing trees or favorite plants and, according to local spiritual belief, must be preserved.

The indigenous Dayak Kualatn have a customary forest called *Tonah Colab Torunt Pusaka*, where Tonah=land, Colab=cold, Torunt=forest, Pusaka=inheritance. The head of the Pendaun Village, Mr. M. Tagon (39 years old) estimates the size of Tonah Colab to be 1,400-1,500 hectares located in four locations: *Dorik Bindang* (Bindang Hill), *Dorik Tebelian* (Tebelian Hill), *Dorik Genilau* (Genilau Hill) and *Dorik Mentoa* (Mentoa Hill). To date, only the *dorik Bindang* has been mapped, encompassing 875 hectares.

On Tonah Colap lies a ritual site called *Balai Pebantant.* Currently, there are two *Balai Pebantant*: one in *Bukit*

Bindang and the other in *Batu Besi*. There is also a sacred tree in *Balai Pebantant*, *Batu Besi*. According to local belief, if the tree bears fruit, harvests will be abundant, and vice versa.

2. Local Wisdom

According to the indigenous Dayak Kualatn's belief, the land, roots, logs, rattan and other forest resources each possess a "prophet." Before entering the forest and using the resources, they have to ask for permission first from the "owner" of the forest and the respective "prophet." If they do not do so, they will suffer from a disease called *minau babi*. In addition, they also ask for permission from the sun (at sunrise and sunset) for good luck.

Forests are commonly burned to establish cropland. The burning is done with local wisdom called *Odhi*, i.e., cooperatively clearing the forests. Prior to the burning, ditches are built to prevent the fire from spreading uncontrollably. The activity involves all members of the community: men, women, and youth. Women usually bring water for men to put the fire out.

3. Customary Law

The indigenous Dayak Kualatn of Pendaun Village still adhere to customary laws. Customary laws must be used to resolve any problems or conflicts. Even if a court decision is passed, a case is said to be unsettled if customary laws have not decided it.

To defend the forest, the community took the *Tonah Colab Torunt Pusaka* oath in 1999. The oath specifically aimed to reject any company planning to operate in their forest. To date, they have expelled companies from their forest for the seventh time.

Below are some rituals commonly practiced there:

- *Nukat Bumi*, a ceremony to rehabilitate the environment and hills degraded naturally or by human activities. The ritual requires at least seven wild boars and 14 roosters/hens. The community is not allowed to collect and or kill anything in the forest for a given period determined by the *Borent*. Violation of this will bring bad luck not only to the violator but

also to the entire community;

- *Mokantonah*, a traditional ritual commonly practiced in a smaller area, such as a river with diminishing numbers of fish, to "call" more fish to come. The ritual requires at least five wild boars and seven roosters/hens. According to local belief, the fish will be abundant again after the ritual. Fishing, however, is not allowed for a given period. Violation of this will bring bad luck to the village;
- *Bebantant*, a traditional ceremony invoking the ancestors to fulfill the community's prayers. Cutting parts of a tree and killing animals is not allowed for three days up to a month, depending on the *Borent*, who leads the ritual. The minimum requirements include one wild boar and five roosters/hens.

4. Land Tenure Concept

In general, forests in Pendaun Village are classified into two, i.e., communal forest and individual forest, both regulated by customary laws. Communal forests such as *Tanah Colap* cannot be cleared for cropland.

The rights holder is the one who first clears or finds the forest. Anyone wanting to use the forest must ask for the owner's permission first. The owners demarcate their respective forests by growing bamboo and fruit-bearing trees.

Issues Related to REDD

Issues related to REDD include questions such as; Who are the players? How should it be implemented? What benefits will it bring; and most importantly who has the right to the forests? While all these are still unclear, REDD implementation in Indonesia is complicated by the following problems related to the rights of indigenous peoples:

- Economic development mainly still depends on the exploitation of natural resources;
- Overlapping policies (Laws on estate crops, mining, land,

forestry, foreign investment; a bill on customary forests, Permenhut REDD, Governmental Regulation on mining in protected forests) and an absence of laws explicitly recognizing and protecting the rights of indigenous peoples;

- Conflicts of interest among departments, and between central and regional governments;
- An absence of official recognition of the rights of indigenous peoples;
- Absence of specific data on indigenous peoples—the identity of indigenous peoples is still frequently questioned (Setra 2010).

REDD-Related Challenges Faced by Indigenous Peoples

Government policies are the main problem indigenous peoples face when addressing REDD. Almost all policies on natural resource management are unfavorable to indigenous peoples. Meanwhile, to be able to observe their customary obligations, indigenous peoples need full recognition of their rights, and room to implement climate change mitigation measures.

Currently, there are several challenges that indigenous peoples have to address to observe their customary obligations in relation to climate change mitigation or to participate in REDD, namely:

1. National development is driven by policies and sectoral institutions that undermine the indigenous peoples' customary system;
2. The controlling power of the state (as the eminent domain) has stripped indigenous peoples' communal rights to land and natural resources on customary land. This power is implicitly stated in Law No. 41 of 1999 on Forestry Chapter I Article (1) point (f), which reads, "Customary forests are the state's forests lying over the territory of customary law community";

3. Forced standardization of village governance, militarization of customary territories, and misinterpretation have undermined customary laws and governance;
4. Another initiative that has emerged out of climate change mitigation is biofuel. This initiative tries to incorporate plantations (oil palm, sugarcane, soybeans, etc.) into climate change mitigation/REDD (Setra 2010). However, oil palm plantations are among the main causes of deforestation in Indonesia.

ACTIONS AND RESPONSES

In response to climate change and REDD issues, the Indigenous Peoples' Alliance of the Archipelago (AMAN) held a national indigenous peoples' consultation on 4-9 August 2009, which ran parallel to AMAN's National Working Session (*Rapat Kerja Nasional*/Rakernas) and the celebration of the Indigenous People's Day in Kasepuhan Sinarresmi, West Java. The consultation was attended by 139 people comprising local and regional chapters' representatives and the Board's members. Specifically, the event was held to prepare indigenous peoples, particularly AMAN's members, to respond to climate change and REDD issues.

Four speakers presented materials on climate change, REDD and their impacts on indigenous peoples. They are Mina Susana Setra (of PB AMAN), A. Ngaloken Gintings (of the Forestry Department), Tomoyuki Uno (program officer with UN-REDD), and Prasetyayadi (of the Ministry of Environment). Afterwards, indigenous peoples developed work plans to address climate change and REDD.

AMAN's Climate Change and REDD Working Group (POKJA)

AMAN formed a working group (POKJA) on climate change and REDD during the National Working Session (RAKERNAS AMAN) in Kasepuhan Sinarresmi, Sukabumi, West Java, on 4-9 August 2009. The group's members consist of representatives of

indigenous peoples in Indonesia. Specifically, the group was formed to prepare indigenous peoples to address climate change. Activities having been done so far include Training of Trainer, policy advocacy, sharing and dissemination of information on climate change and REDD.

On 28 January 2010, the working group held a dialogue session with the Forestry Ministry's climate change and REDD working group. The special agenda of the dialogue was to build a common perception between AMAN's POKJA and MoF's POKJA and to identify opportunities indigenous peoples could take. On that occasion, the Head of AMAN's POKJA, Ms Mina Susana Setra, put forward some recommendations about REDD and indigenous peoples' participation, as follows:

- Indigenous peoples' right to Free, Prior, Informed and Consent (FPIC) must be secured;
- Law No. 41 of 1999, which has been incorporated into the 2010-2011 National Legislation Program (Prolegnas), must be revised to recognize indigenous peoples' rights;
- The Ministry of Forestry should form a special unit as a special administrative desk for customary territories;
- The Ministry of Forestry should encourage recognition and protection and promote indigenous peoples' forest management models;
- The Ministry of Forestry should form a conflict resolution mechanism to resolve conflicts related to indigenous issues (Setra 2010).

It is most unfortunate that none of these recommendations have been adopted and followed up by MoF's POKJA. The department says that everything needs processes. This statement suggests that the department has no intention to resolve the existing problems, both those related to forest area and those related to REDD.

Policy Advocacy (Urging the Government to Pass a Law on the Recognition and Protection of Indigenous People's Rights and to Revise Law No. 41 of 1999 on Forestry)

One of the obstacles which prevents indigenous peoples from being able to observe their customary obligations in relation to climate change mitigation and REDD is the absence of policies and laws that fully recognize and protect indigenous peoples' rights. Therefore, AMAN urges the government to revise Law No. 41 of 1999 on Forestry and pass a new law that recognizes and protects indigenous peoples' rights. These two agendas have been incorporated into the 2010-2014 National Legislation Program.

Ancestral Domain Registration Agency (BRWA)

AMAN, in cooperation with Forest Watch Indonesia (FWI) and Jaringan Kerja Pemetaan Partisipatif (JKPP).[12] has formed an Ancestral Domain Registration Agency (BRWA) to collect data on indigenous peoples, which have not been consolidated or well-managed in accordance with the needs of governmental and non-governmental institutions. The data will be used in advocacy work to address problems faced by indigenous peoples, including those arising from REDD schemes.

After having been registered, verified and validated, the data will be publicly published on the BRWA's website (www.brwa.or.id) and other media to reach a wide-range of readers. The customary forest already mapped encompasses five million hectares.

Engaging with Government Agencies

On 17 March 2009, AMAN and KOMNASHAM (the National Commission on Basic Human Rights) signed a Memorandum of Understanding (MoU) to resolve cases related to indigenous peoples. Signed in Gedung YTKI Jln. Gatot Subroto No. 44 Jakarta, the MoU aimed to formulate measures needed to

mainstream an indigenous peoples' basic human rights approach in Indonesia. To this end, it was agreed to implement the following measures:

- Socializing UNDRIP;
- Holding regular information sharing;
- Assessing the existence of indigenous peoples in Indonesia and their basic human rights;
- Developing mechanism to address violation of basic human rights;
- Supporting ratification of the Optional Protocol to the International Covenant on Economic, Social and Cultural Rights.

In addition, AMAN is also working with the Ministry of Environment. The MoU was signed on Wednesday, 20 January 2010, in Jakarta, covering cooperative implementation of the following:

- Identification of the existence and the rights of indigenous peoples and of local wisdom management in environmental protection and management;
- Capacity building for environmental cadres;
- Empowerment of indigenous peoples;
- Information sharing on indigenous peoples.

Strengthening FPIC in Various Regions

FPIC in Indonesia is still a subject of discourse and has yet to be adopted in any project in customary territories. Hence, there is a need for capacity building to fully mainstream FPIC principles into policies related to indigenous peoples.

AMAN, in cooperation with Forest People Program (FPP) and JKPP, has conducted activities related to FPIC in various regions. Among the activities which have been completed are institutional development, training and assistance to help indigenous peoples apply principles of FPIC in discussions and nego-

tiations. The activities have been carried out in three locations, namely Lewolema in East Flores, Lusan in East Kalimantan, and Kuntu in Riau.

Training

To increase indigenous peoples' capacity to defend their rights, AMAN has held the following training:

- Training on developing databases in cooperation with FWI;
- Training on participatory mapping in cooperation with JKPP;
- Training of Trainer on REDD and Climate Change for indigenous youth and AMAN's regional chapters;
- Internship program for indigenous youth at PB AMAN.

RECOMMENDATIONS

Effective advocacy to Claim the Rights of Indigenous Peoples

Recommendations for effective advocacy of indigenous peoples' rights are:

- To conduct legal analysis and advocacy to urge the government to revoke or revise laws that do not recognize indigenous peoples' rights, such as Law No. 41 of 1999 on Forestry;
- To extend socialization and to mobilize support to on the enactment of the Bill on Protection and Recognition of Indigenous Peoples' Rights;
- To document and secure indigenous territories through participatory mapping, which depicts rights to land, forests and traditional natural resource management knowledge;

- To revitalize customary institutions and traditional knowledge on natural resource management;
- To understand the principles of FPIC and to pressure companies and the government to adopt them prior to any operation in indigenous territories;
- To produce aware and capable cadres to fight for and protect indigenous peoples' rights.

Measures to be Taken by Organizations and Institutions Supporting Indigenous Movement in Indonesia

Below are recommendations to organizations and institutions in support of indigenous movement:

- To pressure and influence the government or decision makers to revise or revoke policies that prevent indigenous peoples from exercising their rights to managing natural resources;
- Specifically, to extend socialization and mobilize support on the enactment of the Bill on Protection and Recognition of Indigenous Peoples' Rights;
- To establish indigenous peoples information center, plan and map indigenous territories and document traditional knowledge to be used as a negotiation and advocacy tool;
- To pressure the government of Indonesia and international governments to incorporate the principles of FPIC as one of the requirements for development projects and to accelerate resolution to conflict related to indigenous issues;
- To raise awareness about UNDRIP and FPIC principles to wider public.

Ensuring Indigenous Peoples' Participation in REDD Processes

In the absence of law and regulations that fully recognize indigenous peoples' rights, participation and involvement of indigenous peoples in REDD processes is paramount to ensure that REDD schemes to be implemented will safeguard the rights of indigenous peoples. Therefore, recommendations to ensure indigenous peoples' participation and thus secure indigenous people's rights in REDD processes should include the following:

- To lobby international bodies such as UN and donors to pressure the government of Indonesia to involve indigenous peoples in all REDD processes and develop safeguards to ensure protection and recognition of indigenous peoples rights;
- To produce indigenous cadres aware of the impacts of REDD and climate change policies so that they can participate effectively and advocate indigenous peoples' rights in REDD decision-making processes in local, national and international level;
- To socialize and raise awareness about REDD and climate change (disseminating UNDRIP, FPIC, and Manuals for Indigenous Peoples to Address REDD and Climate Change) among indigenous peoples so that they are ready to deal with any REDD initiatives or projects introduced in their territories;
- To identify and document indigenous territories included in REDD projects as one of the basis for advocacy to secure indigenous peoples' rights.

Endnotes

[1] Samsul Muhyidin, a fisherman of North Lombok, interviewed by Annas Radin Syarif, AMAN, 28 October 2009.

[2] Kolaborasi Bali untuk Perubahan Iklim, "Refleksi Peserta Seminar Nasional; Adaptasi Perubahan Iklim di Kepulauan dan Pesisir dalam kerangka pembangunan berkelanjutan," (The seminar was held at Puri Dalem Hotel, Sanur, Bali, on 27 - 28 October 2009).

[3] Buka Sasi Lompa is the Haruku community's traditional ceremony to call lompa fish from the sea.

[4] Kliff Kissya, an indigenous member of Haruku Island, interviewed by Annas Radin Syarif, AMAN, 28 October 2009.

[5] Law No. 41 of 1999 on Forestry, Chapter II Article (6) <documentation of AMAN>.

[6] See AMAN's Statute, Chapter VII Article (10) Paragraph (2).

[7] See Permenhut P.20/Menhut-II/2007, Chapter I Article (1) paragraph (1).

[8] See: Law No. 41 of 1999 on Forestry, Article (4) Paragraph (2) (AMAN's Database).

[9] See Law No. 5 of 1990 on Basic Agrarian Provisions, Article (2) Paragraph (1).

[10] See Permenhut No. P30/Menhut-II/2009, Chapter I Article (1) point (24).

[11] Damang is a religious leader appointed by the government through a Regent's Decree.

[12] Participatory Mapping Network.

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Annex

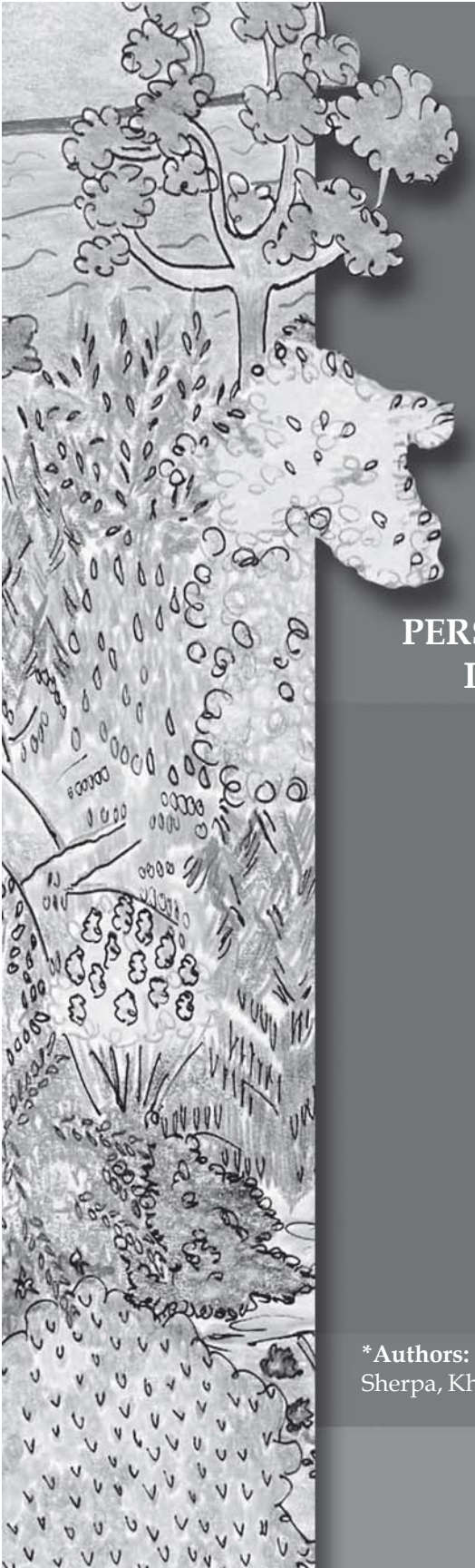
No	Laws/Policy	Point
1	1945 Constitution, Article 18B, Second Amendment, 2000	Paragraph 2. The state shall recognize and respect customary law community units and their traditional rights as long as they do exist and are in accordance with the nation development and the principle of the Unitary State of Republic of Indonesia, which are regulated in the laws.
2	1945 Constitution , article 28I, Second Amendment, 2000	Paragraph 3. Cultural identities and rights of customary peoples are respected in accordance with the development of times and civilization
3	TAP MPR No. XVII/MPR/1998 on Basic Human Rights (Basic Human Rights Charter), 13 November	Article 41. The cultural identities of traditional peoples, including the rights to customary land, are protected in accordance with the developments of the times.
4	TAP MPR No. IX/MPR/2001 on Agrarian Reform and Natural Resource Management, 9 November	Article 5 point j: recognize and respect and the rights of customary law community, and the cultural diversity over agrarian and natural resources
5	Law No. 39 of 1999 on Basic Human Rights, 23 September	Article 6 paragraph 1. In order to uphold basic human rights, the differences and the needs in customary law community shall be taken into consideration and protected by law, the nation and the government. Article 6 paragraph 2. The cultural identities of traditional peoples, including the rights to customary land, are protected in accordance with the development of times *Explanation to Article 6 paragraph 1: Customary rights that still exist and that are highly upheld among customary law community shall be respected and protected in the context of upholding basic human right within the peoples with consideration of the existing laws and regulations*.

		Explanation to Article 6 paragraph 2: in the context of upholding basic human rights, the national cultural identities of customary law community and the rights that are still strongly upheld shall be respected and protected as long as they are not in direct contradiction to the principles of law state that is based on people's prosperity
6	Law No. 5 of 1960 on Basic Provisions on Basic Agrarian, 24 September	Article 2 paragraph 4. The said controlling power of the state can, in its implementation, be delegated to private territories and customary law community, if necessary and not in direct contradiction to the national interests, in accordance with the government's regulations Article 3. Considering the provisions in articles 1 and 2, the exercise of customary rights and similar rights of customary law community, as long as they do exist, shall be done in such a way that it is in accordance with the national and the state's interest, which is based on national unity, and shall not be in direct contradiction to higher laws and regulations. Article 5. The agrarian law is applicable to the land, water and space is the customary laws as long as they is not in direct contradiction to the national and the state's interests, which are based on the nation's unity, Indonesia's socialism and provisions incorporated in this law and other regulations, while considering matters relying on the agrarian law. Article 22 paragraph 1. Ownership rights by customary laws shall be regulated by governmental regulations. Article 56. In case the law concerning ownership right as referred to in Article 50 paragraph 1 has not been set, the applicable laws are the local customary laws and other regulations on land title that give the same authority as or similar authority as that mentioned in Article 20, as long as they are not in direct contradiction to the spirit and provisions of this law.

7	Law No. 41/1999 on Forestry, 30 September	Chapter IX on customary law community. Article 67 paragraph 1. customary law community, as long as they exist and are recognized, shall have the right to collect forest products for daily needs of concerned communities; undertake forest management in accordance with the prevailing customary laws which are not in direct contradiction to the laws; and be empowered for improving their welfare. Article 67 paragraph 2. Confirmation of existence and abolishment of customary law community as referred to in paragraph (1) shall be stipulated in regional regulations
8	Law No. 24/2003 on Constitutional Court, 13 August	Article 51 paragraph 1. The applicant is the party who considers that his/her constitutional rights and or authority are impaired by the enactment of the law, namely individuals of Indonesia citizenship, and customary law community units as long as they exist and are in accordance with the nation development and the principle of the Unitary State of the Republic of Indonesia, regulated by the laws, public or private provisions, or the state's institutions
9	Law No. 7/2004 on Water Resource, 18 March	Article 6 paragraph 2. The management of water resources as referred to in paragraph (1) shall be carried out by the Government and/or regional government by continuing to recognize the traditional right of the local traditional law community and any similar rights, to the extent that it does not contradict the national interest as well as the laws and regulations.
10	Law 32 / 2004 on Regional Government, 18 October	Article 2 paragraph 9: The State shall recognize and respect customary law community units and their traditional laws as long as they exist and are in accordance with the nation development and the principles of the Unitary State of the Republic of Indonesia

11	Law No. 20/2003 on National Education System, 8 July	Article 5 paragraph 3. Isolated or primitive citizens as well as isolated customary community are entitled to education with special treatment.
12	Law No. 7/2007 on Coastal and Small Island Management, 17 July	Article 1 paragraph 33. Customary community is a coastal community having lived for generations in a given geographic area because of ancestral relationship, strong relationship with coastal resources and small islands, and having a value system that determines economic, political, social and legal institutions.
13	Law No. 32/2009 on Environmental Protection and Management, 3 October	Article 1 paragraph 31. Customary law community is a group of people who has been living for generations in a given geographic area because of ancestral relationship, who has a strong relationship with the environment and who has a value system that determines economic, political, social and legal institutions
14	Qanun (Islamic Law) of NAD Province No. 14/2002 on Forestry, 14 October	Article 1 paragraph 31. Customary community is a group of people living in a given area for generations based on geographical similarities and or blood relationship, and having their own customary territory and customary institutions.
15	Law No. 21/2001 on Special Autonomy for Papua, 21 November	Article 1 point p. Customary community is the natives to Papua who live in a given area and are bound and subject to distinct customs with high solidarity among the members; Article 1 point r. Customary law community is the natives to Papua, who have since birth been living in a given area and who are bound and subject to distinct customary laws with high solidarity among the members;
16	Law No. 25/2004 on National Development Planning System, 5 October	Explanation to Article 2 Paragraph 4 Letter d. What is meant by “community” is individuals, groups of people including customary law communities or legal entities that have interests in development activities and results, be it as the financiers, actors, beneficiaries or risk takers.

17	Law No. 23/2006 on Demographic Administration, 29 December	Explanation to Article 6 Letter f. What is meant by "village" is a unit of law community having territory boundaries, who have the right to regulate and take care of the interests of the local community based on origin and local customs, which are recognized and respected within the governmental system of the Unitary State of the Republic of Indonesia.
18	Law No. 52/2009 on Demographic Growth and Family Development, 29 October	Article 5 Point n. Maintaining and developing customary values upheld in the community's lives.
19	Law No. 4/2009 on Mineral and Coal Mining	Article 67 Paragraph 3. The application letter as meant by the provision shall bear sufficient postage stamps on it and be accompanied with recommendation from the village head/customary leader confirming the validity of the applicant's information to be prioritized in obtaining IPR.
20	Law No. 22/2001 on Oil and Gas, 23 November	Article 11 paragraph 3 point p. development of the surrounding communities and secured rights of customary communities;
21	Law 27/2003 on Geothermal, 22 October	Article 16 Paragraph 3. Geothermal mining operations cannot be carried out in (point a.) cemeteries, sacred places, public places, public facilities and infrastructure, reserves and customary land.
22	Law No. 18/2004 on Estate Crops, 11 August	Article 9 Paragraph 1. In case the land needed is customary land of customary law community that does exist, prior to the titling as meant in paragraph (1), the applicant for the right is obliged to meet with the customary community holding the customary right and with the community holding the right to the concerned land, to ask for their consent for the handing-over of the land and for associated compensation.



3

LOCATING INDIGENOUS PEOPLES' PERSPECTIVES IN REDD+ IMPLEMENTATION IN NEPAL

By
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INTRODUCTION

Topography and Indigenous Peoples of Nepal

Nepal is an independent, indivisible, inclusive, sovereign, secular and democratic country. Located in between the Republic of China to the north and the Republic of India to the south, east and the west, Nepal occupies a total area of 141, 000 sq km of land-locked mountainous terrain which includes the Himalayas. In terms of geography, Nepal is divided into three zones—the High Mountain, Middle Hill and Siwalik which are abundantly in bio-natural diversity. Nepal is equally rich in socio-cultural diversity due to the physiographic regions and indigenous peoples.

The Himalayan zone covers 15 per cent of the total area of Nepal while Hilly and Terai, respectively, occupy 68 and 17 per cent. The altitude ranges from less than 63 meters in the southern plains to more than 8,000 meters in the northern Himalayas, which has the highest peak on the earth—Mount Everest (8,848m). Due to the altitudinal and climatic variations, one can experience almost all types of climates in Nepal—tropical, sub tropical, temperate, alpine and tundra.

The National Foundation for the Development of Indigenous Nationalities (NFDIN) Act-2002 has identified 59 indigenous nationalities in the country (See Annex A). The NFDIN Act defines indigenous nationalities as "communities who consider themselves as distinct groups and have their own mother tongues, religions, traditions, cultures, written or unwritten history, traditional homelands, geographical areas, and egalitarian social structure." Racially, Nepal is home to four racial groups—Mongoloid, Dravidian, Austroloid and Caucasoid. Among them, the Mongoloids are considered as indigenous peoples. (See Ethnographic Map of Nepal) According to Census-2001, the indigenous peoples cover 37.2 per cent out of the 22.38 million total

population of the country (See Annex B). The growth rate of the Nepalese population is 2.6 per cent per annum. The female population constitutes 50.4 per cent of the total population while the male population constitutes 49.96 per cent.

Out of the 59 groups of indigenous peoples in the country, the census has identified 43 indigenous peoples.[1] There are several reasons which would explain why 16 groups are unaccounted for—the census may have counted them in with other castes or involved classified them into a general category ("others") due to enumerators' lack of knowledge and awareness about indigenous peoples in the remote areas.

Out of the 43[2] identified indigenous peoples, the main 10 ethnic groups have a population of over 100,000 populations, with the remaining groups constituting less than one percent of the total population of the country (See Annex C). Nepalese indigenous peoples are very diverse with different forms of settlements, ranging from nomadic or semi-nomadic to forest and city dwelling (See Annex D). Their literacy rate is 40 per cent which is lower than the national literacy rate of 53.4 per cent.

According to some experts, there are over 140 languages spoken among the Nepalese people. However, the census 2001 has recorded a total of 92 languages only (See Annex E). Among the languages, a majority of indigenous peoples speak Tibeto-Burman language family while the rest speak languages under Indo-Aryan and Dravidian family (See Linguistic Map of Nepal).

LAND USE, FOREST SITUATION, DRIVERS OF DEFORESTATION & FOREST DEGRADATION

Land Use and Forest Situation

The Land Resource Mapping Project (LRMP) prepared the ever first country-wide land use estimation based on the aerial photography in 1978/79. The survey revealed that of the total land, 42.8 per cent comprise forest cover, 26.8 per cent is agricultural land, 11.9 per cent grazing land, and 18.5 per cent uti-

lized for various purposes (Jha, PK et al. 2000). Since then, the forest land has been significantly decreased to 29 per cent (4.2 million ha) as estimated by the Central Bureau of Statistics (CBS 2001). Following malaria eradication in 1950, the forest in Terai was depleted to make room for the increasing populations, farming, and infrastructural development. The recurring fire, grazing, legal and illegal wood harvesting have added woes to the degradation of the available forest over time.

Most of the hill forests have now been managed by indigenous peoples and local communities, and in many cases, the forests are increasing in growing stock. The hills constitute about 30 per cent of Nepal. The Terai, Dun and the hills are highly populated. Construction of network of road in these highly populated regions has also contributed in the depletion of forest.

Though the high mountain areas in the country are scarcely populated, the data show that there is an extensive use of forests. The southern part of the Himalayan region has a wide area of alpine meadow used for grazing and collection of medicinal aromatic plants. The land use pattern and forest land in the country between 1991 and 2001 is presented in Table 1. Most

Table 1: Land Use and Change in Forest Land over Time

Change in Land Use Over Time in Hectares								
	Year 1991/1992				Year 2001/2002			
Land Use Type (Ha)	Mountain	Hills	Terai	Total	Mountain	Hills	Terai	Total
Cultivated land (Total)	207761	17250	10386	29617	210635	179818	10887	30900
Non-cultivated land	494998	43630	55600	98688	517309	448491	64590	10300
Forest (Total)	233346	44309	11585	58200	228100	289066	11494	42680
Shrub	137800	51168	39000	68848	167800	125418	13812	15600
Grass land	132644	15878	35423	17545	137644	159208	36423	17660
Other	796618	16619	24894	24832	946212	202475	31474	30020
Grand Total	2003168	10334	23528	14710	2207700	100080	25000	14710

Source: Adapted from CBS (2008), Environment Statistics of Nepal.

parts of the mountain region are covered with snow. As a result, it has been the center of global attention due to the global warming in the current years.

The table shows that most of the forests in the country are located in the hilly region. The Terai region along with the East-West Highway and Siwalik hill are the second largest forest stand. As per the table, the major grasslands of the country, which cover about 12 per cent of the total land, are located in the mountain region. Other land use category includes snow-covered, rocks, wetlands and settlements which constitute about 18 per cent of the total area. The National Forest Inventory (NFI 1999) shows contradicting data which designates forest cover of about 29 per cent of the total area of the country.

Nepalese shrub lands, the degraded forests, are primarily located in the hilly areas and Terai. Shrub lands constitute about 10.6 per cent of the total area. Jointly, they constitute 5.8 million hectares of land. These forests are located across the four geographical regions of the country. The middle mountains have about 48 per cent of the total forest area and the Terai has about nine per cent of the total forest. Likewise, the Siwalik hill provides room to 16 per cent of the forests while the rest chunk of the forest is located in the high hills. Presently, some 15.2 per cent of the total forest and shrub land is under the Protected Area System.[3]

The national forests,[4] under the Department of Forest (DoF), are categorized into five types on the basis of management rights assigned to different entities. Community Forest Users' Groups (CFUGs) manage about 21 per cent of the total forest area while the leasehold groups manage about 0.46 per cent. Likewise, about 0.2 per cent forest is under the Collaborative Forest Management (CFM) regime while the 63 per cent of the forest is under the residual forest and shrub land, legally owned by the government. The residual forest and government-owned forests, in reality, are open access resources in the country.

Situation of Deforestation and Forest Degradation

In Nepal, forest degradation rate is higher than deforestation. A comparative study of forested areas in between 1979 to 1994 shows that annual deforestation rate in the country is 1.6 per cent whereas annual degradation rate is increased by eight per cent (MoFSC; REDD Cell 2009). Ironically, the degradation of national forests is comparatively higher than the other forests management regimes. Evidences clearly prove that the deforestation and forest degradation is substantially reduced once the forest management is transferred to the local communities. At the same time, it is also argued that the community forests[5] have been improved only at the cost of adjacent national forests in several places. The studies in regard to the deforestation and forest degradation have been carried out by various organizations having knowledge and capacity on Nepalese forests (Nepal's R-PIN 2008).

The Nepalese forests are located in an estimated 5.8 million hectares of land, which is 40 per cent of the total area of the country. Out of the estimated area, a total of 4.2 million hectares (29%) is covered by the pure forest while 1.6 million hectares (10.6%) is shrub-land (DFRS 1999). Table 2 displays the historical forest area of the country and deforestation rate across several years. Presently, the overall deforestation rate in the country is 1.7 per cent, which is well above the Asian average of one per cent and the global average of 1.3 per cent (MoFSC 2008).

Table 2. Deforestation and Change in Forest Cover over the Period of Time in Nepal (in million hectares)

Period	Cover		Total Forest Area	Deforestation Rate (in %)		
	Forest	Shrub Land		Terai	Hill	Overall
1964	6.4	-	-	-	-	-
1979	5.6	0.7	6.3	1.3	2.3	1.7
1986	5.5	0.7	6.2	-	-	-
1999	4.27	1.56	5.83	-	-	-
2000-2005	3.74	-	-	1.4		

Source: (MEST 2001).

A comparative result of the National Forest Inventory and the Land Resources Mapping Project (LRMP) shows that the forest area in the country has decreased by 24 per cent at an annual rate of 1.6 per cent in 1979-1994. At the same time, the shrub land area has increased by 12.6 per cent during the same period (MoFSC 2008). The increasing proportion of shrub land adjacent with the increasing reduction of overall forest area gives a clear picture of deforestation in the country.

Nepal, has approximately 4,268 hectares of forest (29% of the total land area) and 1,562,000 hectares of shrub land (10.6% of the total land area). The most recent statistics reveals that forest area has been decreased at an annual rate of 1.7 per cent over a period of 15 years whereas forest and shrub together have decreased at an annual rate of 0.5 per cent. Decrease in forest is not usual in every physiographic zone. In Terai, forest area has decreased at an annual rate of 1.3 per cent from 1978/79 to 1990/91, whereas the rate in the hilly area is 2.3 per cent during the same period. According to DFRS (1999), the forest and shrub together have decreased at an annual rate of 0.2 per cent in the mountains. Table 3 includes the empirical data on the changes in forest and shrub land in Nepal between 1978/79 and 1990/91.

Table 3. Changes in Forest and Shrub Land in Nepal between 1978/79 and 1990/91

Year	Forest Land (in %)	Shrub Land (in %)	Total	Source
1978/79	38.0	4.70	42.7	LRMP
1990/91	29.0	10.6	39.6	NFI

Source: HMGN-DFRS, 1999.

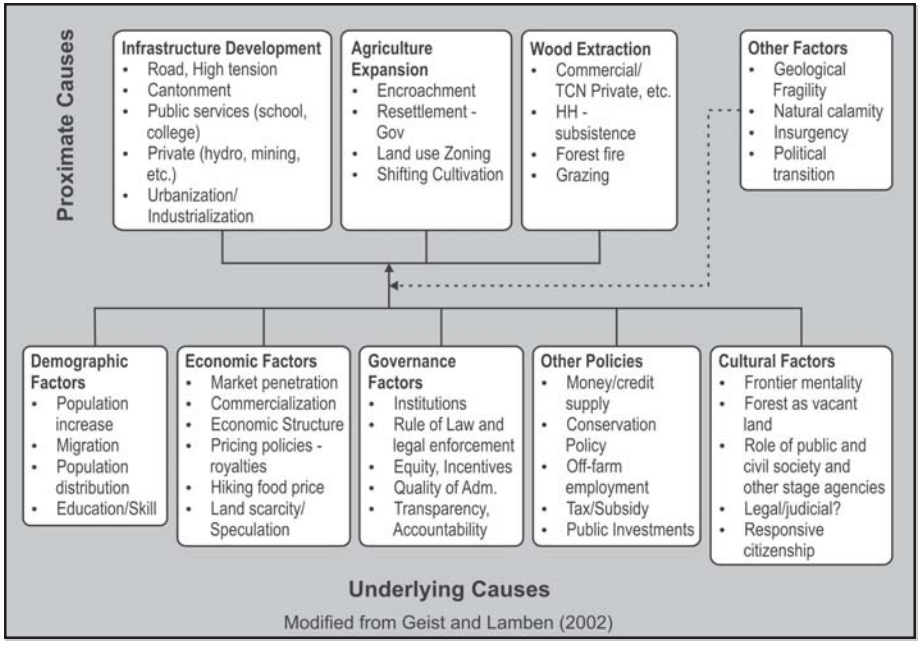
Drivers of Deforestation and Forest Degradation

Various studies reveal that there are multiple drivers of deforestation and forest degradation in Nepal. Deforestation is driven partly by natural disturbances and partly by ecological process (Dunning et al. 1992). It could be either exaggerated by proximate cause that directly results in conversion of land use/land cover or driving forces that amplify the actions for proximate causes (Chowdhury 2006).

According to some authors, wood extraction, agricultural expansion, urbanization and infrastructure development are proximate causes of deforestation (Shukla et al. 1990; Burgess 1993; Ojima et al. 1994; Lambin et al. 2003) that could have direct impact in ecosystem, food production mechanism and local livelihoods in the tropics (Foley et al. 2005). However, others point out biophysical factors, population growth and land-tenure system, socio-political and economic policies as responsible factors to increase the deforestation (Kasperson et al. 1995; Ostrom et al. 1999; Geist and Lambin 2002; Leemans et al. 2003).

Kanel et al. (2009) also differentiates proximate and underlying causes of deforestation and degradation based on the definition of Geist and Lambin (2004). The proximate causes are those immediate human activities which are operational at the local level such as expansion of cropped land and pasture, harvesting or wood extraction, and expansion of infrastructure. These proximate causes of deforestation have had a direct impact on forest land in Nepal.

Figure 1. Proximate and Underlying Causes of Deforestation and Degradation in Nepal



As shown in Figure 1, other studies and detailed discussions with key stakeholders, the following causes of ongoing deforestation and degradation are commonly attributed to a number of important factors in expanding the process of deforestation and degradation in the country.

The proximate causes can be commonly grouped into five broad categories—expansion of agricultural land policies for food production, commercial and household wood extractions for firewood including logging, road construction and infrastructure development policies, wild fire, grazing and fragile geological condition and natural calamities.

The indigenous peoples reside all over the country. However, main concentration of indigenous peoples is higher in mountain and plain regions as compared to the hills. Indigenous peoples are highly affected by the government policies of road construction and infrastructure development, expansion of agricultural land for food production and commercial and household wood extractions for firewood in comparison to hills and mountains. The mountain and hill indigenous peoples are affected by wild fire and grazing and fragile geological condition and natural calamities.

R-PIN (2008), estimated that 80,000 hectares was identified as the area being converted to agricultural and resettlement area in the plain. Within a period of 15 years (1964-1979) about 400,000 hectares of forest was cleared and converted into agricultural and scrubland for livestock grazing.

Wood fuel is the dominant source of energy in small and traditional industries. The industrial sector accounts for 1.5 per cent of the total fuel wood consumption. A large number of medium and large-scale industries in rural and urban areas of Nepal, such as baking, brewing, lime burning, brick making, cutlery industries, etc. also utilize wood fuel as a source of energy (Ghimire 2003). Today bio-fuels provide 87 per cent of the energy consumed in Nepal (HMG, NPC 2003). About 30 per cent of the energy requirements of the industrial sector are met by fuel wood.

Further, infrastructure development is a major but often underestimated cause of deforestation and degradation. Lands

for roads construction and dams settlements have been increased, significantly influencing the deforestation in their surroundings. Between 1978 and 1991, about 99,000 ha of tropical Sal forest in the Terai was cleared with the average rate of deforestation of 1.3 per cent per year (HMGN-DFES 1990). The area was also used for road construction, use by academic institutions and for other development and construction works (HMGN-NPC 1998). Karki (1991) mentioned that 40 per cent of forest fires were accidental and 60 per cent were deliberately set.[6]

There is no systematic and complete record of forest fires that have occurred in Nepal. However, its impact on forest cannot be ignored notwithstanding the varied outcomes across the country. Fires are more frequently reported in the Siwalik Hills of Nepal. Unexpectedly, no forest fires are reported in dry forests, but more so from humid and—to a lesser degree—transitional forest zones in humid savanna areas (Geist and Lambin 2001).

Laban (1979) analyzed natural and human-influenced landslides and found that the natural landslides of considerably large size in middle hills of Nepal measure about 0.2 per sq km but an increase to 2.8 per sq km is discerned in areas with human interference. The hill roads and roadside vegetation are greatly affected by landslides and according to one estimate, about 400 to 700 cubic meters of landslides per sq km occur annually on the hill roads. Every year, 1 to 2 mm of fertile topsoil is lost, leading to desertification and low productivity (Jha 1992).

Indigenous Peoples' Perspective on Deforestation and Degradation Drivers

During the key informants' interviews on 23 Nov. 2009 and national REDD strategic workshop on 23-24 Feb. 2010, indigenous peoples' leaders and researchers opined that the main drivers of deforestation and forest degradation are government laws, policies, institutional factors, political instability, destruction of indigenous peoples' traditional institutions, customary laws and practices.

They claimed that indigenous peoples had their own traditional forests and land management system and equal access to the natural resources which were under their protection before the unification of Nepal in 1769. However, the territorial unification and the imposition of government laws and policies on land and forest subsequently directly or indirectly contributed to forest degradation and deforestation.

By introducing the Private Forest Nationalization Act 1957, the government nationalized the forests across the country. Nationalization of forests in 1957 and subsequent survey and registration of private land in 1960 provided further inducement to convert forests into agricultural land. Consequently, the forests in Nepal started to decrease and degrade at an alarming rate. Indigenous peoples' community forests were appropriated and their traditional rights on forests were taken away thus breaking down the traditionally existing indigenous stewardship and management system of forests. The Act offered no compensations to soon-to-be deprived landowners. As a result, a number of communities intentionally deforested their holdings to avoid nationalization (Khadka and Gurung 1990). Following the incident, communal responsibility of forest management disappeared and the forests in the country were converted into open access areas as a common property resource, with the communities having no stake in forest protection.

Despite the positive intentions of nationalizing the forest, the Act largely contributed to massive deforestation inviting rapid rate of reduction. Unfortunately, the formal nationalization of the forests spurred unforeseen ecological consequences. Incentive was given to clear the forest so that land could be claimed as the private property once it had been cultivated. The subsequent survey and registration of private land in 1960 provided further inducement to convert forests into the agricultural land. This became a key factor to increased deforestation throughout the country. As they had no records of land ownership, the villagers turned to cutting down trees so the land could become private property once they cultivated the land (Bajracharya 1993; Wallace 1997). As government's survey teams traversed the countryside with aim of mapping the boundaries of forest areas, villagers assembled to claim as much area as

they wanted. This resulted in extensive deforestation and environmental degradation. The Land Survey and Measurement Act of 1963 continued to have an adverse impact on forests as it defined forest land as common property. Such a definition encouraged people to claim forest areas as their common lands and this resulted in rampant exploitation of land, further breaking down the indigenous community's management system of forest resources.

Moreover, violent breach of stipulations of the Act reportedly led to the relocation of displaced people to forested areas in Nepal. In some cases, such relocations were even funded partly by transmigration programs of international institutions and national governments. Next to the policy decisions leading to deforestation, the colonization and re/distribution of forests at the national level contributed further to the deforestation and degradation of the Nepalese forests.

Likewise, the government's economic development policies and decisions to establish colonization settlements in the country also had an impact on deforestation. In most of the cases, national policies, through national development plans, encouraged most of the expansions of cropped land and pasture land and the expansion of infrastructure. The specific growth-oriented agricultural and infrastructure policies also contributed to deforestation and degradation of forests. Aside from national development plans, international policies also brought impacts in this case. The international development aid, World Bank policies on cash crops, road construction and Structural Adjustment Programs focused at the local level also invited huge deforestation. At the same time, political instability in the last decade and lack of land use plans also contributed to the deforestation and degradation of forests in Nepal.

In addition, government's informal policies also were contributory factors to deforestation in the country. In specific cases, the forests of the Terai and Siwalik range are receding both in terms of area and quality. Public land, including forests, shrubs and rangeland are under the jurisdiction of the Department of Forest (DoF) and Department of National Parks and Wildlife Conservation (DNPWC). These parks and reserves in the Terai and Siwalik range are under the supervision and active patrol-

ling of Nepal Army with the restrictive forest management laws-1973 and regulations-1993.

These policies, as a whole, fostered the process of alienation of indigenous and local communities from their natural bases without addressing their social, cultural economic and gender problems. The policies have put these communities' survival in conflict with environmental sustainability. Since they no longer felt that the forests in their communities no longer belonged to them, the people were left with no option but to engage in illegal activities inside the parks and reserves.

The lack of transparency and massive-scale corruption also contributed to the deforestation and degradation of forests in country. The unsustainable timber logging and forests cut down because of the lawlessness made bureaucrats and government institutions unable to perform their supervisory duties leading to forest mismanagement (Acharya 2010).

Keeping in mind the experience of deforestation and degradation, it can be argued that the government's prevalent forest policies undermined the indigenous forest management system. In a Focus Group Discussion during the National REDD Strategic Workshop held on February 23-24, 2010, indigenous peoples consider the deforestation as a result of loss of their community rights to own, use and control the forest in Nepal. The natural ecosystems—the air, waters, lands, plants and animals, rivers, wetlands and ponds constitute the totality of the natural environment and provide indigenous peoples the basis for their traditional subsistence economies such as farming, hunting, gathering, herding and fishing. They also fear that deforestation and degradation of forests in the country has posed risks to their livelihood, economy and resource finally eroding their social life, traditional knowledge and cultures

LAWS POLICIES AND PROGRAMS ON FOREST, LAND-TENURE, REDD, CLIMATE CHANGE & INDIGENOUS PEOPLES' RIGHTS

Indigenous Peoples and International Human Rights Instruments

Aiming to protect the rights of indigenous peoples, Nepal, including the various organizations, have adopted, introduced and ratified a varied number of rights-related declarations and instruments. Nepal, for instance, has ratified the International Labor Organization's (ILO) Convention No. 169 concerning the Indigenous and Tribal Peoples in Independent Countries on 10 September 2007. The United Nations General Assembly has also adopted the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) on 13 September 2007. In addition, Nepal has also ratified several other international instruments which are directly relevant to indigenous peoples in Nepal.

Indigenous Peoples' Rights in Constitution and Legal Provisions

Indigenous peoples values and identity are deeply rooted in the continued existence of culture, tradition and knowledge but successive governments of Nepal after 1950s have failed to address the issues of indigenous peoples. The democratic movement of 1990 brought the essence of multi-ethnic and multi-lingual nationalities to a wider recognition, both politically and constitutionally. The political change of 1990 only tried to adopt a cosmetic approach on the key issues, and the issues of indigenous peoples was left un-addressed. The interim constitution, 2007 also looks very promising in as far as being able to address the issues of indigenous peoples' rights; however, the concretization of such promise remains to be seen.

Constitution of the Kingdom of Nepal-1990

The 1990 Constitution of the Kingdom of Nepal declared Nepal a multi-ethnic, multi-lingual and democratic country. For the first time, the Constitution formally recognized the indigenous peoples in the country. Despite its recognition through Article 4, the Constitution still could not address the issues and problems regarding the indigenous peoples' rights. Unfortunately, by giving primacy to Hinduisms, the Constitution, in effect, relegated other religions to second-class status. As a result, the indigenous peoples in Nepal were discriminated in the social, political and economic aspects.

Further, Article 6 of the Constitution recognized Nepali language as the language of nation, undermining other languages as national languages. This provision invited linguistic discrimination in the country. Article 18 (2) of the Constitution contradictorily gave communities the right to conduct schools up to the primary level in their own mother tongues while Article 112 (3) prohibited political activities based on their religions, castes and socio-cultural groups.

Interim Constitution-2007

Following the People's Movement II, Nepal, through the Constituent Assembly, attempted to introduce a new constitution. Currently, Nepal has an interim Constitution promulgated in 2007 which was introduced on the basis of a political agreement by the Seven Party Alliance (SPA). In comparison to past documents, this Constitution has allowed for the inclusion of positive provisions to address indigenous peoples' political, cultural, economical and social rights. Article 3 of the Constitution recognizes Nepal as multi-ethnic, multi-lingual and multi-cultural country. The Constitution has also declared that Nepal would move ahead as a federal democratic state. It recognizes Nepal as a secular state and all the languages as language of nation, i.e., the language spoken in the particular state shall be the official language of the state (See boxed item for relevant articles in the 2007 Interim Constitution).

Some Important Articles of the Interim Constitution-2007

Article 13.3: The State shall not discriminate among citizens on grounds of religion, race, caste, tribe, sex, origin, language or ideological conviction or any of these. Provided that nothing shall be deemed to prevent the making of special provisions by law for the protection, empowerment or advancement of the interests of women, dalits, indigenous ethnic tribes, Madhesis, or peasants, laborers or those who belong to a class which is economically, socially or culturally backward and children, the aged, disabled and those who are physically or mentally incapacitated;

Article 14.1: No person shall, on the ground of caste, descent, community or occupation, be subject to racial discrimination and untouchability of any form. Such a discriminating act shall be liable to punishment and the victim shall be entitled to the compensation as provided by the law;

Article 14.2: No person shall, on the ground of caste or tribe, be deprived of the use of public services, conveniences or utilities, or be denied access to any public place, or public religious places, or be denied to perform any religious act;

Article 14.3: No person belonging to any particular caste or tribe shall, while producing or distributing any goods, services or conveniences, be prevented to purchase or acquire such goods, services or conveniences; or no such goods, services or conveniences shall be sold or distributed only to a person belonging to a particular caste or tribe;

Article 14.4: No one shall be allowed to demonstrate superiority or inferiority of any person or a group of persons belonging to any caste, tribe or origin; to justify social discrimination on the basis of cast and tribe, or to disseminate ideas based on caste superiority or hatred; or to encourage caste discrimination in any form;

Article 21.1: Women, dalits, indigenous peoples, Madhesis community, oppressed groups, the poor peasants and laborers, who are economically, socially or educationally backward, shall have the right to participate in the state

mechanism on the basis of proportional inclusive principles;
Article 33 (d): It is responsibilities of the state to carry out an inclusive, democratic and progressive restructuring of the State by eliminating its existing form of centralized and unitary structure in order to address the problems related to women, dalits, indigenous peoples, Madhesis, oppressed and minority community and other disadvantaged groups, by eliminating class, caste, language, sex, culture, religion and regional discriminations;

Article 35.10: The State shall pursue a policy which will help to promote the interest of the marginalized communities and the peasants and laborers living below poverty line, including economically and socially backward indigenous tribes, Madhesis, dalits, by making reservation for a certain period of time with regard to education, health, housing, food sovereignty and employment.

In recognition of the interest of indigenous peoples, the Constitution asserts that the states shall ensure the participation of marginalized indigenous peoples in all tiers of the state as per the principle of social inclusion and proportional representation. Article 63 similarly gives provision for 601 members of the Constituent Assembly to be selected through a mixed electoral system. As per the provision, a total of 240 members are chosen through "first-past-the-post" elections system, 335 members are chosen through the proportional representation electoral system (groups to which the provision applies are: women, dalits, oppressed communities and indigenous peoples from backward regions, Madhesis and other groups as defined by the law), and 26 distinguished members from ethnic groups by the Ministry of Council.

National Foundation for Development of Indigenous Nationalities Act-2001

Nepal has formulated an act on National Foundation for Development of Indigenous Nationalities (NFDIN) for the social, economic and cultural development of the indigenous peoples. The Act is equally aimed at the protection and promotion of language and culture of indigenous peoples. Furthermore, it also aims to uplift and make equal participation of the indigenous people in the mainstream development. Section 5 (3) of the Act, aims to conserve and promote the traditional skills, ideas and technology of indigenous peoples and help them bring into commercial use. Section 6 (a) of the Act has made provision to make the Foundation responsible to develop necessary programs on conservation and promotion of language, script, literature; history, art, culture, traditional skills and technology of the indigenous peoples. The Foundation is an autonomous corporate body. Its main objective is to provide support in the overall development of indigenous nationalities by formulating and implementing plans and programs related to their community, education, economy, culture and technology of traditional livelihoods.

However, the Act has no provisions on indigenous peoples' traditional knowledge in forest biodiversity. It is merely limited to the non-forest biodiversity based knowledge, skills and technology. The Foundation is limited in the sense that it primarily promotes the welfare approach rather than the implementation of a human rights approach to development.

Nonetheless, there are a number of acts, regulations and ordinances which are concerned with the issues of rights of indigenous peoples (See box).

Acts, Regulations and Ordinances for Rights of Indigenous Peoples

Civil Service Bill-2007 - The Civil Service Act was amended in 1993. Among others, it provides seat reservation to excluded people and backward regions, and trade union rights. The reservation/quotas in the civil service are as follows: women—33 per cent, Janajati—27 per cent, Madhesis—22 per cent, Dalits—nine per cent, persons with disabilities—five per cent, and backward regions—four per cent.

Nepal Police Regulations-2007 - Nepal Police Regulations, making historic amendment of its Regulations, provided 32 per cent seats to indigenous nationalities, 28 per cent to Madhesis, 15 per cent to Dalits, 20 per cent to women and five per cent seats to the peoples from backward regions during its recruitment.

Social Inclusion Ordinance-2009 - The Ordinance, for the first time, made public service the inclusive. The proposed ordinance reserves 45 per cent of it total seats to women, Adibasi Janajati, Madhesis and Dalits, people with disabilities and residents of backward regions while filling the vacant posts through free competition.

Constituent Assembly Elections Act-2007 - According to Constituent Assembly Elections Act-2007, all the contesting political parties must ensure representation of different groups in following proportion: A total of 37.9 per cent indigenous peoples, 31.2 per cent Madhesis, 13 per cent Dalits, four per cent from backward regions and 30.2 per cent Brahmins and Kshetris. The Act also provisions 50 per cent women candidates from all groups.

Land, Forest and Rights Policies of Indigenous Peoples

Prior to the territorial unification of Nepal by King Prithivi Narayan Shah in 1769, Nepal was divided into 22 and 24 principalities and other independent nation-states of the indigenous peoples. Prior to unification, exclusion primarily emanated from discrimination owing to patriarchal and Hindu caste-based structures and through political structures that comprised Kings and their subjects along with chieftains and their tribal community. The post unification period, which fostered central dominance and dismantled local and community structures which were prevalent for centuries promoted various forms of exclusion by religious, cultural and political processes. The dominance of a privileged group supported by the centre emerged and the common indigenous peoples became excluded from socio-economic opportunities, including access to local resources.

The governments of Nepal introduced and implemented discriminatory land and forest acts in Nepal. Because of these acts, the vast majority of indigenous peoples were displaced from their own communal land which they had tilled from generation to generation as the land title deeds were unfairly awarded. This severely undermined and indigenous peoples' access to local resources, such as land, forest and water on which they had depended for their livelihood for centuries and their rights to these were severely curtailed following restrictions and barriers imposed by centrally-administered regulations and tax regimes.

Land Acts

During the territorial unification of Nepal in 1769, the Gorkahali rulers displaced indigenous peoples from their original homelands. Even after the unification, they introduced discriminatory land laws, and ignored all the customary land-tenure systems and laws of indigenous peoples. In some cases, they provided *Kipat*[7] lands to indigenous peoples legislating special laws like *lalmohar, sanad* and *sawal*. The Nepalese indigenous peoples further lost their land during the 103-year long Rana

regime. By introducing discriminatory laws, the Ranas were able to register the lands of indigenous people under their names.

In the modern times, the one-party Panchayat government introduced the Land Reform Act in the year 1964. With its first amendment in 1968, the government abolished the *kipat* land system of the indigenous peoples, as this was considered as a form of landlordship. The Pasture Land Nationalization Act of 1975 added further woes to indigenous people and their livelihoods by nationalizing and adding extra taxes on their pasture lands.

Forest Act-1993 and Forest Regulations-1995

Nepal introduced Forest Act-1993 to provide legal measures with aims to protect the forests and involve the local people in the conservation and development of forest resources. The Act gained further strength with the enactment of Forest Regulations-1995 in promoting the local communities' access to forest resources. In order to meet the goals set by the aforementioned Act and Regulations, the government empowered District Forest Officers (DFO) to hand over any part of national forest to the users' group for them to develop, conserve, use, and manage, and to sell and distribute forest products independently by fixing the prices under the work plan of the Act-1993 (Section 25.1.) However, handing over of the forest to the community does not change the status of ownership of forest land (Section 67). This provision shows that the state remains the principle authority to control over the Nepalese forests.

Forest Act, Community Forests and Indigenous Peoples

In order to facilitate the handover process, the government of Nepal has given top priority to the community forests. The community forestry program in Nepal has been implemented for more than 15 years. Recent data indicate that over 14,500 community forest users' groups (CFUGs) have been formed so far. This means that more than 1.24 million hectares of forest—

nearly 25 per cent of the total area of the country—has been managed by such groups. According to the (FCPF RPIN-2008) over 950 Leasehold Forest Users' Groups (LFGUs) have been formed across the country which has been managing a total of 3,700 hectares of forest land.

Despite these facts and Community Forest Users' Group (CFUG) provision for participation of local communities in the management and implementation of the forestry and leasehold forestry program, indigenous peoples and socially disadvantaged local communities have been excluded in the decision-making process and equitable benefit sharing of the forest and forest products. Ironically, despite the stipulations of the Act, the government has taken no initiatives to promote the indigenous knowledge, skills and customary practices for the sustainable management of the community forests.

National Parks and Wildlife Conservation Act-1973

The government introduced National Parks and Wildlife Conservation Act-1973 (NPWC) with the objective of creating National Parks to conserve the wildlife and their habitats. In the preamble of the Act, it mentioned to protect, conserve, manage and utilize the naturally beautiful sites and penalize the poachers and hunters.

With the Act in place, the responsibility of managing and protecting naturally significant areas has under the purview been of the warden, not the forest users' groups (Section, b, NPWC, 1973). As per the Act, the government has heavily restricted the local inhabitants' movement into the parks and reserves. Despite the provision to seek local people and local leaders' feedbacks and suggestions before building the National Parks, Reserves, or Protected Areas (Section 3 and 3a f NPWC, 1973.),[8] the government hardly does such consultations and local communities have excluded in decision-making processes. Following the introduction of NPWC Act-1973, forest-dwelling and local communities, including indigenous peoples, were displaced from National Park, Reserves and Protected Areas. Peoples who were expelled from their traditional territories and lands without any pre-information and consent while building parks, re-

serves and protected areas have unfortunately not been given compensation. The locals and indigenous peoples' issues of concern such as land rights and restitution for loss of their lands including physical, cultural and both the tangible and intangible sources have not yet been properly resolved.

NP WC Act-1973: Government Forests and Indigenous Peoples

The forests in the protected areas, the leasehold forests, the religious forests and the forest which are have not yet been handed over to the communities are known as government-managed forests. In Nepal, all forests are national forests unless planted and registered as private forests. There is larger portion of forest managed by the government in Nepal. Such forests are strictly protected and broadly managed within protected areas system. Protected areas have been guarded by army or DFO staff. The guard posts deployed at the strategic location are relatively strict in enforcing government instructions.

The sate-imposed exclusionary conservation policies and practices have disregarded indigenous peoples' existence, dependence and their relationship with forestlands and subsistence or livelihood in the forest resources. However, the government has allowed indigenous and local communities to use certain park resources under specific terms and conditions during particular seasons. Again, such conditional access is given under the strict regulations and supervision of the park authority.

Aside from these pros and cons, the government has imposed a major injustice against the indigenous and local communities living close to the surrounding of protected areas by alienating and depriving them from forest resources. It has obstructed various traditional practices to own, access, control, mange the park resources. Indigenous and local communities' traditional rights are curtailed and they are denied adequate alternative opportunities and management which has resulted in a serious livelihood crisis (Rai 2009).

NPWC Act and Buffer Zone

The National Parks and Wildlife Conservation Act (NPWC) underwent a third amendment in the 1992 to incorporate the concept of "buffer zones" in the protected areas. As a new policy initiative of the government, it began taking shape immediately after the amendment of the NPWC Act. Pursuant to this amendment, an attempt was made to create a transition belt in the periphery of the protected areas, and to introduce a compatible land use pattern. This could create a protective layer, mitigate the pressure on the parks and improve the life of the people in the vicinity of the parks and reserves through community development programs.

The Buffer Zone Management Regulation-1996 strengthened the interrelationship between National Park, Reserve and local community living around. It aimed to conserve and protect wildlife through peoples' participation by informing local people about the direct benefits of the parks and reserves to persuade them to support conservation efforts. The Buffer Zone Management Guideline-1999 was approved and put into effect with the aim to supply forest products and to conduct community development programs for the economic development of local people using revenues collected by parks. In this regard, management and conservation activities have been carried out with the partnership and collaboration of various organizations in the buffer zones. However, another shortcoming of the NPWC Act is its lack of scope for community participation in conservation design and management of the parks and reserves. The Buffer Zones model found that it had a tremendous positive impact on the nearby indigenous communities, although the poorest among them were still not found have benefited. The buffer zone concept is good but still with many incomplete provisions.

So far, a total of over 1500 users' groups and 110 users committees have been formed with a population of 0.4 million (Oli 2005) across the country. Despite these positive moves, there have been a few successful examples in the span of the two decades of efforts towards involving indigenous and local community in management of parks and reserves. Indigenous peoples' participation is woefully low in comparison to their greater de-

pendence on park resources and their high population densities around parks and reserves.

Policies and Programs

Since the Eighth Plan period under social welfare, various programs for economically, educationally, socially backward communities were implemented but the indigenous peoples scattered all over the kingdom could not reap substantial benefits. Taking note of weakness and limitations of the earlier programs, the Ninth Plan incorporated a special policy and programs related to indigenous people and ethnic groups. The Tenth Plan separated chapters on indigenous peoples. In the interim of three years, the Plan has comparatively adopted broader perspectives on aspect of indigenous peoples.

The programs included in the plan were launched with the objectives of eliminating existing social disparities and exclusion by improving the indigenous peoples' and local communities' socio-economic condition, raising overall cultural status of the nation by undertaking research works on their cultural heritages with the view of ensuring the local cultures' well-being while enhancing the members' capabilities through economic, social and communal empowerment. These also sought to involve them in the nation building task through ensuring their access to resource by promoting knowledge and skill along with the modernization of their traditional occupations.

Despite these facts, indigenous people and ethnic groups as a whole were unable to reap benefits as envisaged by these programs. There are no committees of indigenous people and ethnic groups at the local level. Implementation of the programs emanated from the center and as such, difficulties, which prevented smooth, well-managed and effective implementation of the programs hindered the process. The failure may be attributed to the to lack of timely monitoring and of policy in respect to development of expertise in the indigenous peoples communities.

Ninth Plan-1997-2002 and Tenth Plan- 2002-2007

Since mid 1990, social exclusion has become an agenda of development due to increasing insurgency. The Ninth Plan- 1997-2002 was the first periodic plan to include sections on social inclusion keeping in mind the social security of the downtrodden and oppressed communities (Gurung 2007 in NPERCENT, 702-706 and 707-712). But very little was done in terms of implementation. The Tenth Plan-2002-2007 separated chapters on indigenous peoples. The policy components include elimination of inequality through socio-economic development, skill mobilization of such communities, and emphasis on social upliftment by allocation of resources and opportunities.

To address indigenous peoples' issues, the programs and activities have been implemented in part through NFDIN. The programs are limited to the continuation of the Ninth Five-Year Plan. Though the Tenth Plan mentions a broad range of policies and strategies to empower the indigenous peoples through positive actions and programs, these have not been concretized in practice. These program components have not been assigned any quantitative targets. Indigenous peoples' issues have not yet become a priority for the government as evidenced by the relatively small budget allocated to address the indigenous peoples' issues and absence of clear policy. The Tenth Plan does not specifically give emphasis on the issue of rights of indigenous peoples to land, forest and traditional forest-related knowledge. Its chapter on strategies and actions primarily gives emphasis on protection, promotion and utilization of rural traditional knowledge, skills and technology. Thus, there is no way to assess the implementation progress, particularly on impacts on upliftment of indigenous peoples. Some policies made for the disadvantaged groups are merely welfare-oriented and do not truly not address the structural problems.

Interim Plan-2007-2010

The Interim Plan-2007-2010, adopts comparatively broader perspectives insofar as aspects which address the concerns of indigenous peoples. Unlike others, it has identified the problems, challenges, opportunities, strategies, and programs, for the development of indigenous peoples (See box). Though the Plan does not specify the forestry sector policy for the indigenous peoples, it, however, commits to support poor indigenous peoples, as many indigenous peoples, comparatively, have lower income rate. It consists of policy on forestry sector, has set the objective,[9] strategies and policies related to poor,[10] and mentions about the opportunities for the members of the communities.[11]

Problems, Challenges, Opportunities, Strategies and Programs for Interim Plan-2007-2010

Problems: Lack of access to power and resources as the structure and management of the state is centralized. Lack of legislation in all sectors for positive discrimination and reservation, issues of indigenous peoples not prioritized due to conflict in the country. There was lack of data showing status and problems of indigenous peoples, inadequate budget and program for improvement in education and health, and conservation of language and culture. There was no policy clarity to identify traditional skill, technology, knowledge, language and capacities of indigenous peoples.

Challenges: Due to inadequate education, indigenous peoples are not in position to compete with other higher section in the Nepalese society. In lack of governance and pervasive corruptions, the indigenous peoples have not succeeded to use their human rights and services.

Opportunities: In the Interim Constitution-2007, Nepal is declared a secular, inclusive, republic, which has opened up additional chances for indigenous peoples. With end of armed conflict, there is favorable environment for the promotion of knowledge and skills and use of natural resources in the region occupied by indigenous peoples.

Strategies: Interim Plan has mentioned following strategies and policies relating to biodiversity conservation and indigenous peoples. Implementing special programs for threatened, highly marginalized and marginalized indigenous peoples. Language, religion and culture of indigenous peoples will be conserved and promoted through development of National Cultural Policy. Develop appropriate mechanism to increase access of indigenous peoples in water, land, forest and mines. For protection and promotion of language and culture of indigenous peoples, a long-term master plan will be prepared and implemented.

Main Program: Interim Plan has mentioned following main programs based on the biological resource for the development of the indigenous peoples. Given priority to the indigenous people for the protection and management of natural resources. Develop policy for loan to support enterprises and skill of indigenous peoples. Arrange for seed money, training and technology for modernizing and professionalizing traditional skills and knowledge. Implement enterprise program for development of indigenous peoples. Implement necessary programs for promotion and production of non timber forest products and medicinal and aromatic plants to raise livelihood of indigenous peoples.

The Interim Plan has adopted conservation, promotion and sustainable use of biological resources. It also makes provisions for the preservation of culture, language, traditional knowledge, skills, and technology through research and institutional arrangements. Moreover, considerations in relation to community and public ownership of biological resources have been made to meet with indigenous and poor people's aspirations in relation to a forestry program. The Plan also aims to promote and utilize forest resources to enhance livelihood development opportunities and thereby reduce poverty. Likewise, the plan has also recognized the full range of forest potential and biodiversity in terms of environmental and economic aspects.

However, the plan does not touch the issues that could address social, cultural and spiritual aspects of the forests. Likewise, the plan does not recognize the rights of indigenous peoples

over their lands and forests. In order to extend support for the promotion and protection of traditional knowledge and customary practices of indigenous peoples in the conservation and management and sustainable use of forest resources, the plan privileges a sectoral approach to the holistic approach.

Nepalese Indigenous Women

The Nepalese women's rights movement found impetus for resurgence after the restoration of democracy in 1990. The 1990 Constitution of Nepal further shaped the women's movement as it safeguarded and guaranteed women's rights to freedom and equality. Consequently, the country saw the emergence of various organizations advocating for the women rights, among these, the Ministry for Women, Children and Social Welfare. The formation of the National Women Commission (NWC), likewise, is another example of positive developments in connection to Nepalese women's rights. The growing women's movement is further strengthened by the recommendation of the Constitutional Organ Determining Committee of the Constituent Assembly to accord constitutional recognition to the NWC. The NWC has the mandate to run programs development programs for women and rights to investigate and recommend action for acts of violence against women.

As a backdrop to these achievements, the government of Nepal was a signatory in 1997 in the UN Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). Similarly, the government of Nepal has expressed support for UN Security Council Resolution No. 1325 that ensures and promotes women rights even during the period of conflicts. The elections to Constituent Assembly also brought out some positive results in regard to the political participation of the Nepalese women. Through the Act on Constituent Assembly Elections, the provision for an obligatory 33 per cent women's participation was secured. As a result, there are 197 (i.e., 32.8%) women members among the 601 total Constituent Assembly members. Among these seats are 30 women members elected through "first-past-the-post" electoral system, 161 elected through the proportional representative system and the

remaining 26 chosen as representative on the basis of nomination. This representation is remarkably larger than the women's presence in the previous parliaments. Amended Civil Servant Act- 2063 has specified a 33 per cent quota for the women and Nepal Police and Armed Police Force-Nepal has also provisioned specific seats for the women.

Despite these efforts, discrimination against women is still prevalent in the county who still are an insignificant presence in the formal social, political, cultural and economic sectors of the country. Even the patriarchal familial system existing in the society has been tagged as another cause of the discrimination against women. On the other hand, NWC has not been very effective due to lack of human and financial resources.

The situation of indigenous women and their children is even more pathetic. The problems of indigenous women can be viewed through three different perspectives—first in terms of gender, second in terms of indigenous peoples and third in terms of indigenous women.

As indigenous women, they have been facing problems due to some state-made policy and laws. A number of government policies have undermined the traditional knowledge, skill and inventions of indigenous women. Though the existing acts, laws and policies, have made some provisions to address the women's issues, no provisions are made in the case of indigenous women who traditionally have special significant identity in their community. Even the programs launched by the government have failed to bring together and mobilize the indigenous women, let alone the special programs to promote and protect their indigenous skills, arts and knowledge (ILO 169 Nepal 2010).

As for the REDD initiatives in Nepal, the issues of indigenous women are not mentioned in both RPIN and RPP to address the important roles they have played in the sustainable management of the forest. On the top of that, there are no women representations in the national REDD-related institutional setup in Nepal. The Himalayan Grass-Roots Women Natural Resources Management Association (HIMAWANTI) is one of the members of the consortium in the implementation of 1b component of RPP but it has merely focused women's issues in gen-

eral. Thus the issues of indigenous women's full and effective participation in the REDD process is lacking.

ANALYSIS OF REDD PROCESSES & MECHANISMS

As a signatory nation to the United Nation's Framework Convention on Climate Change (UNFCCC) since 1992, the government of Nepal has focused on the issues of climate change nationally and internationally. When the Bali Conference 2007, COP 13, Bali Action Plan (BAP) came up with the policy approaches and positive incentives on the issues of REDD in developing countries and mentioned the issues of indigenous peoples for the first time, Nepal also submitted an R-PIN to the World Bank on the 15th of April 2008 for the REDD initialization under the Ministry of Forest and Soil Conservation. On 26 January 2009, the Ministry of Forest and Soil Conservation established a three-tiered REDD-related institutional set-up—the REDD multi-sectoral, multi-stakeholder, co-coordinating and monitoring body at apex level, the REDD Working Group at operational level and the REDD Forestry and Climate Change Cell (MoFSC Website).

The key stakeholders of REDD process are mainly the government agencies under the Ministry of Forest and Soil Conservation (MoFSC), Civil Society Organizations (CSOs) such as Nepal Federation of Indigenous Nationalities (NEFIN), Federation of Community Forest Users Group (FECOFUN), Himalayan Grass-Roots Women's Natural Resources Management Association (HIMAWANTI), Association of Collaborative Forest Users' Nepal (ACOFUN), Dalit Alliance for Natural Resources (DANAR), Nepal Foresters' Association (NFA), and National Indigenous Women Federations Nepal (NIWF) together with I/NGOs and private sector organizations working closely in the field of forest, land and agricultural sectors. However, the main role in the development and implementation of the REDD process is guided by the REDD Working Group under the Ministry of Forest and Soil Conservation.

Programs and Activities of REDD Cell

The REDD Forestry and Climate Change Cell, in coordination with the REDD Small Working Group, is working on the Readiness Preparation Proposal (RPP) under the mechanism of Forest Carbon Partnership Facility (FCPF) of the World Bank. One of the purposes of the Readiness Preparation Proposal is to assist the country in its preparations for REDD. Although there was no representation of the indigenous peoples during the preparation of R-PIN and the issues of indigenous peoples were negligible, representative from NEFIN was invited to be one of the members among seven of the REDD Working Groups at the operational level.

R-PIN and Indigenous Peoples

In the beginning of the REDD talks in 2007, the Government of Nepal responded quickly to the opportunities such as the World Banks' Forest Carbon Partnership Facility (FCPF) as one of the preparatory activities for REDD. The current REDD initiative aims to establish an enabling framework for promoting transparent, accountable and equitable service delivery in carbon business. The main emphasis is given on capacity building across the host stakeholders on institutional, technical and operational aspects to institutionalize good governance and carbon trading in forestry (Kotru 2009).

The Ministry of Forest and Soil Conservation (MoFSC) has been actively participating in REDD-related talks nationally and internationally from 2007. Nepal has submitted its Readiness Plan Idea Note (R-PIN) in April 2008. Remarkably, Nepal is also selected for support under the World Bank's Forest Carbon Partnership Facility (FCPF) and REDD Readiness Fund. R-PIN explicitly recognizes the cultural, medicinal and livelihood values of forests for forest dependent communities. It also recognizes to promote through forest-based laws and policies, increased roles of communities in forest management.

R-PIN clearly recognizes indigenous communities as forest dwellers further identifying as one of the main stakeholders in the REDD process. It has also underscored the need to conduct

the program in the spirit of a rights-based approach. However, R-PIN has fallen short in recognizing the rights of indigenous peoples over the resources secured by the international treaties and conventions like ILO 169 and UNDRIP. Likewise the R-PIN has not even addressed the issue of full and effective participation including free, prior and informed consent of indigenous peoples in the development and implementation of REDD process. There is no clear picture of women and children and their involvement in the National REDD process. It has emphasized on management of the forest by the local communities but ignored the customary practices of indigenous peoples and the role of women in the sustainable management of the forest. Thus the R-PIN is unable to give clear picture of the empowerment of the indigenous peoples and the benefit sharing process.

R-PP and Indigenous Peoples

In the process of working on the Readiness Preparation Proposal (R-PP), the proposal to work on the different components was published in the national newspapers. There are six components of R-PP:

1. Consultation and Organization: (1a) National Readiness Management Arrangements; (1b) Stakeholder Consultation and Participation;
2. Preparation of REDD Strategy: (2a) Assessment of Land Use, Forest Policy and Governance; (2b) REDD Strategic Options; (2c) REDD Implementation Framework; (2d) Social and Environment Impacts;
3. Developing Reference Scenario;
4. Design Monitoring System: (4a) Emissions and Removals; (4b) Other Benefits and Impacts;
5. Schedule and Budget;
6. Designing Program Monitoring and Evaluation Framework.

Of the six components, the first (1b) component, Stakeholders Consultation and Preparation was carried out by consortium members of seven organizations—Nepal Federation of In-

digenous Nationalities (NEFIN), Federation of Community Forest Users' Nepal (FECOFUN), Himalayan Grass-Roots Women's Natural Resources Management Association (HIMAWANTI), Association of Collaborative Forest Users' Nepal (ACOFUN), Dalit Alliance for Natural Resources (DANAR), Nepal Foresters' Association (NFA) and Forest Action.

The other components were carried out by different individual experts and institutions. The activities of different components of the RPP were finalized and submitted to the World Bank through the mechanism of Forest Carbon Partnership Facilities (FCPF) on 19 April 2010.

Under the component of 1b, a total of six main activities were conducted—16 Awareness and Consultation Workshops, 25 Expert Consultations, two Local and National Level Resource Center Assessments, six Validation Workshop including developing and piloting of outreach materials such as brochure, leaflets, poster, flip chart, radio programs, documentary and articles.

The proposed activities on the components 1b, were consultation and validation workshops, public hearing, public notice, round table meeting, training curricula review, trainings, and capacity building of academic institutions, radio program, visual program, articles, outreach materials and special journal issues.

The draft report prepared by the various components have showed some hesitance to openly accept the rights of the indigenous peoples as secured by the ILO 169 and UNDRIP. Such a hesitation is realized especially over the indigenous peoples' access to the resources as the right holders and recognition of the indigenous peoples' traditional knowledge and skills for the sustainable management of the forest. However, indigenous peoples' representation in the REDD Working Cell has been remarkably positive in being able to raise indigenous voices and issues.

In most of the REDD stakeholders' meetings conducted by the National REDD Cell in partnership with the civil society organizations, the indigenous peoples found the platform to raise their rights-related issues. NEFIN has been successful in invit-

ing the government delegates to speak in favor of the indigenous peoples during the formation of REDD negotiation text in International Indigenous Peoples' Forum on Climate Change (IIPFCC) meeting COP 15 in Copenhagen.

In addition, the NEFIN has already conducted two national level consultation programs in partnership with National REDD Cell.[12] The impact of conducting such program is that it has brought the issues of indigenous peoples, particularly their access to the forest and promotion of their traditional practices for the sustainable forest management to the government agencies. The rights of the indigenous peoples secured by the international treaties and conventions like UNDRIP and ILO 169 are important to be recognized and implemented by National REDD Strategies in Nepal.

Apart from the process in line with RPP, other national REDD players like FECOFUN, ICIMOD and ANSAB implemented the pilot project, "Design and Setting of a Governance and Payment System for Nepal's community Forest Management under REDD" in Charnawati watershed in Dolakha, Ludikhola watershed in Gorkha and Kayarkhola in Chiwan, covering 13,970 ha.[13]

Indigenous Peoples and REDD

The presence of indigenous peoples in the Community Forest Management Groups is very generally very minimal in areas where non-indigenous peoples are dominant. Even in the community forest users groups of some of the districts like Burdiya, where more than 90 per cent peoples are indigenous peoples, there is nominal participation in decision making bodies of the community forest users groups. As such the traditional forest management practices of indigenous peoples are highly impacted upon by the community management policies and programs supported by the decision making bodies. One of the participants in our community level consultation meeting in Burdiya on 19 March 2010 said, "We are no longer allowed to fish in the river and practice our traditional occupation of sieving cold flacks for our survival and we are bound to seek for other labor." However, indigenous peoples in the area where less influenced by

the non-indigenous peoples are still very close to the forest and practice traditional forest management.

Although REDD players including the National Forestry and Climate Change Cell present and on the REDD in Nepal, indigenous peoples are not really aware of the impact of REDD in the forest management practices of indigenous peoples. If the issues of the indigenous peoples are not addressed properly in the process of REDD mechanisms and the formation of National REDD strategies to include related policies and programs respecting the rights of the indigenous peoples over their customary practices, forest management through indigenous traditional occupation, knowledge, skills and customary practices, such mechanism will have negative impact. Therefore, the effective role of indigenous peoples in the lobby and advocacy with the concerned Government Agencies in collaboration with other REDD players like civil society organizations, non-governmental organization is important to ensure the rights of the indigenous peoples enshrined by ILO 169 and UNDRIP in Nepal.

ISSUES & CHALLENGES

In context of REDD development process in Nepal, one of the key issues is the safeguarding of the indigenous peoples' rights over the natural resources, customary practices and REDD strategic information. Keeping in mind this gravity, several issues in relation to the indigenous peoples and REDD are identified under the headings of sustainable livelihoods, natural resources management, awareness level and formation of national strategy and policy in the country.

The introduction of Private Forest Nationalization Act-1957 and Pasture Land Nationalization Act-1975 puts protection and legal recognition of indigenous peoples' customary laws and practices related to the forest at greater risk. In this connection, the recognition of indigenous peoples' traditional practices and rights over the resources asserted by ILO 169 and UNDRIP's contribution of forming National REDD strategies would be pivotal enable the continuance of the indigenous peoples traditional forest management system.

The reformation of the policy and program of the land and forest management in Nepal is under the priority list of the indigenous peoples for developing indigenous-friendly REDD strategies. At the same time, creating awareness among the indigenous peoples about the REDD and carrying it to the grassroots level to allow for their involvement in the decision making process remains as a challenge at present. The National REDD Forestry and Climate Change Cell outreach program under the component (1b) has proposed awareness programs on REDD through different activities. However, based on the prior experience of the national level outreach program done by National REDD Cell, whether or not these programs effectively reach the indigenous communities is still subject to question.

There is representation of indigenous peoples in the REDD Working Group and the REDD Forestry and Climate Change Cell under the MoFSC. Yet, it is feared that policies and programs shall be finalized based on the influence of the majority of non-indigenous people. At this juncture, it seems highly necessary for the indigenous peoples in country to play a very crucial role in pressurizing the Working Group, especially the REDD Forestry and Climate Change Cell to secure their rights over the natural resources as ensured by ILO 169 and UNDRIP. The development of indigenous peoples' position paper on REDD and submission to the concerned government agencies and REDD stakeholders during the National REDD consultation meeting has been good initiation for indigenous peoples to take active part in discussions and decision-making. Yet, it is premature to assume the indigenous peoples' position during the formation of National REDD strategies.

Since there is no representation for women in the Working Group of REDD Forestry and Climate Change Cell, the possibility of addressing the women's issues (or indigenous women's issues for that matter) in the National REDD processes is slim. The impact of climate change has been seen mostly on indigenous women, who are traditionally and culturally close to the nature particularly to part of the forest for which their livelihoods are closely intertwined. As such, the participation and consultation of women in the national REDD process is of vital import.

RECOMMENDATIONS

In order to overcome the problems and issues of indigenous peoples, their involvement in the REDD making process is necessary so that they may be given venue to exercise the crucial role in the dialogue to ensure the rights of indigenous peoples over the lands, forest, water, traditional knowledge and skills. For this, the regular follow-up of decision-making meetings of REDD Working Group is very essential. If it could be done so, the issues of indigenous peoples would be well articulated and illuminated on in the different component reports of RPP that outline the National REDD strategies.

The inclusion of indigenous peoples within the category of local communities will be greatly disadvantageous to the sector in light of of severe impacts of policy on the indigenous peoples. Right from the beginning, it is important to separate indigenous peoples from local communities and secure their identities. Awareness among the grass roots level indigenous people, who are directly or indirectly involved in the management of the community forests is very necessary in this regard. Such an awareness on REDD is equally necessary for local and national level leaders to build further capacity for negotiation and advocacy. It is even important as seen from the perspectives of ILO 169 and UNDRIP to ensure the indigenous peoples' rights.

It is important to reform the policies of climate change, forestry and land in line with the spirit of the objectives of ILO 169 and UNDRIP for the development of indigenous-friendly REDD strategies:

- While formulating the policies, plans and programs related to climate change and REDD, the state should provide constitutional, legal and administrative guarantee of ownership and indigenous peoples control over their waters, lands, forests and mineral resources as ensured by the ILO 169 and UNDRIP;
- The state should respect and recognize indigenous peoples' rights to self-determination through free, prior and informed consent (FPIC) and full and effective participation in formulating policies, plans, programs of

REDD and during its implementation, monitoring and evaluation;

- The state should ensure constitutional and legal recognition to symbiotic relations of indigenous peoples with their ancestral land, forest and water including traditional knowledge, skills, customs, customary legal systems while formulating policies, plans, and programs related to climate change and REDD;
- The state should recognize the traditional forest management systems of indigenous peoples while making policies, plans and programs with objective to control deforestation and degradation including the protection and management of forest resources;
- The state should ensure the effective participation of indigenous women while formulating policies, plans and programs and their implementation, monitoring and evaluation related to climate change and REDD.

For the effective REDD implementation after 2012, the following points need to be considered in advance:

- National laws and policies on land, forest and natural resources need to be reviewed and amended with obligations under international law so as to enable effective administrative and other measures for their implementation;
- There should be legal commitments from the government agencies to fully recognize and uphold the rights of indigenous peoples in national REDD strategies consistent with applicable international standards like ILO 169 and UNDRIP;
- The state should recognize and guarantee indigenous peoples' rights to tenure, control, management and the right to enjoy their traditional lands and territories, customary or community demarcated lands, territories and resources taking into account their historical relationships with their lands, territories and traditional cultural practices.

Endnotes

[1] Tharu, Magar, Newar, Tamang, Rai, Gurung, Limbu, Dhanuk, Sherpa, Kumal, Gharti/Bhujel, Rajbanshi/Koch, Sunuwar, Majhi, Chepang, Santhal/Satar, Ghangar/Jhangar, Gangai, Thami, Dhimal ,Bhote, Yakkha, Darai, Danuwar, Tajpuriya, Thakali, Pahari , Chhantel, Bote, Baramu, Jirel , Dura, Meche, Lepcha , Kishan, Raji , Byashi, Sauka, Hyayu, Walung, Raute, Hyolmo, Kushbadiya, Kusunda.

[2] Out of the 43 identified indigenous peoples, five are from the Mountain region, 20 from the Hills, seven from the inner Terai and 11 from the Terai region. Among them, four have populations of one to 3.6 million, five have 0.1 million to 1.0 million, six have 50,000 to 100,000, 11 have 10,000 to 50,000, 13 have 1,000 to 10,000 and four have 164 to 660 populations.

[3] "Protected Forest" means a National Forest declared by His Majesty's Government as a Protected Forest pursuant to this Act, considering it to be of special environmental, scientific or cultural importance.

[4] "National Forest" means all Forests excluding Private Forests within the Kingdom of Nepal, whether marked or unmarked with Forest Boundary and the term shall also includes waste or uncultivated lands or unregistered lands surrounded by the Forest or situated near the adjoining Forest as well as paths, ponds, lakes, rivers or streams and riverine lands within the Forest.

[5] "Community Forest" means a National Forest handed over to a users' group for its development, conservation and utilization for the collective interest.

[6] Accidental causes include carelessness in the use of cigarettes and matches, escape of fire from land being cleared for cultivation, smoldering charcoal left charcoal burners, as fire to smoke wild bees for honey collection, etc. Fires are deliberately set in forests to kill trees so that the dead wood could be used for fire wood, to induce new grass growth for cattle grazing, to clean forest for farming, to make firewood and fodder easier to collect and for hunting. Fire is also sometimes started maliciously by people with grudges or complaints against the forest owners or policies.

[7] Kipat is essentially a form of communal tenure, as only members of certain ethnic groups are permitted to own land. Under, Kipat, land is held on a tribal, village, kindred or family basis, and individuals have definite rights in these lands by virtue of their membership in the relevant social unit (Regmi 1997).

[8] Eight National Parks, four Wildlife Reserves, one Hunting Reserve, and three Conservation Areas (See Annex 15, box, 8) including

(seven buffer zones) have been established now in three ecological zones covering 27,874 km^2 or 18.33 per cent of the country's total land area. They are governed by the National Park and Wildlife Conservation Act-1973.

[9] Objectives: Ensure rights and access of poor and unprivileged people in forestry program thorough social and economic empowerment. Support in equitable development for poverty reduction by increasing income of poor, dalits, indigenous peoples, ethnic communities etc.

[10] Strategies and Policies Related to Poor: Spend fixed per cent of revenue obtained from forests, wildlife and biodiversity conservation for the benefits of the poor which are as follows: Increase access and over all benefits for poor to use opportunities of international commitments. Formulate livelihood plan with participation of dalits, indigenous people and ethnic communities in all mode of forest management. Use income from buffer zone for the benefits of the poor including indigenous and ethnic communities. Provide fix per cent of income from national forests for the development of poor.

[11] Opportunities: Use resources from forests for the benefits of the poor. Emphasize participation and livelihood activities for poor in community forests, watershed management, conservation areas, leasehold forests and landscape program.

[12] Debriefing the COP 15 with the position of indigenous peoples and next one sharing the indigenous peoples' position paper on REDD developed by the indigenous leaders during the Indigenous Peoples' National REDD Strategic Workshop.

[13] See Project Brochure. Available from: http://communityredd.net.

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Annexes

Annex A. List of indigenous peoples of Nepal

S. No			
1.	Kisan	31.	Baramo
2.	Kumal	32.	Bahara Gaule
3.	Kushbadiya	33.	Bote
4.	Kusunda	34.	Bhujel
5.	Gangai	35.	Bhote
6.	Gurung	36.	Magar
7.	Chepang	37.	Majhi
8.	Chantyal	38.	Marphali Thakali
9.	Chhairotan	39.	Mugali
10.	Jirel	40.	Meche(Bodo)
11.	Jhangad	41.	Yakkha
12.	Dolpo	42.	Rai
13.	Tangbe	43.	Raute
14.	Tajpuriya	44.	Rajbanshi(Koch)
15.	Tamang	45.	Majhi
16.	Tin Gaule Thakali	46.	Larke
17.	Topkegola	47.	Limbu
18.	Thakali	48.	Lepcha
19.	Thami	49.	Lhopa
20.	Tharu	50.	Lhomi(Singsawa)
21.	Thudam	51.	Walung
22.	Danuwar	52.	Byanshi
23.	Darai	53.	Sherpa
24.	Dura	54.	Satr/Santhal
25.	Dhanuk/Rajbanshi	55.	Siyar
26.	Dhimal	56.	Sunuwar
27.	Newar	57.	Surel
28.	Pahari	58.	Hayu
29.	Free	59.	Hyolmo
30.	Bankariya		

Source: (NFDIN Act 2002).

Annex B: Population of Indigenous Nationalities in Nepal

Indigenous nationalities	2001	Percent
Nepal	22736934	
Magar	1622421	7.14
Tharu	1533879	6.75
Tamang	1282304	5.64
Newar	1245232	5.48
Rai	635151	2.79
Gurung	543571	2.39
Limbu	359379	1.58
Dhanuk	188150	0.83
Sherpa	154622	0.68
Gharti/Bhujel	117568	0.52
Kumal	99389	0.44
Rajbanshi/Koch	97241	0.43
Sunuwar	95254	0.42
Majhi	72614	0.32
Danuwar	53229	0.23
Chepang	52237	0.23
Santhal/Satar	42698	0.19
Ghangar/Jhangar	41764	0.18
Gangai	31318	0.14
Thami	22999	0.10
Dhimal	19537	0.09
Bhote	19261	0.08
Yakkha	17003	0.07
Darai	14859	0.07
Tajpuriya	13250	0.06
Thakali	12973	0.06
Pahari	11505	0.05
Chhantel	9814	0.04
Bote	7969	0.04
Baramu	7383	0.03
Jirel	5316	0.02
Dura	5169	0.02
Meche	3763	0.02
Lepcha	3660	0.02
Kishan	2876	0.01
Raji	2399	0.01
Byashi Sauka	2103	0.01
Hyayu	1821	0.01
Walung	1148	0.01
Raute	658	0.00
Hyolmo	579	0.00
Kushbadiya	552	0.00
Kusunda	164	0.00
Total	8454782	37.19

Source: (CBS 2001) Kathmandu.

Annex C. Ten Major Groups by Number

Ethnic/caste Groups	Population	Total
Chhetri	3593496	15.8
Hill Brahmin	2896477	12.7
Magar	1622421	7.1
Tharu	1533879	6.8
Tamang	1282304	5.6
Newar	1245232	5.6
Kami	895954	4.0
Yadav	895423	4.0
Musalman	971056	4.3
Rai Kiranti	635151	2.8
Total	**14675439**	**68.7**

Source: (CBS 2003) Population Monograph of Nepal, Volume I.

Annex D. Adaptive /Subsistence Strategies of Indigenous Peoples of Nepal

Adibasi/Janajati	Forag-ing	Horticul-ture	Pastor-alism	Agri-culture	Indus-trialism
1. Raute 2. Kusunda	+	-	-	-	-
1. Kusunda 2.Bankariya 3.Chepang	+/-	+	-	-	-
1.Thami 2.Raji, 3.Hyayu	+/-	+	-	+/-	-
1.Majhi 2. Bote	+/-	-	-	+	-
1. Jirel, 2. Larke, 3.Siyar, 4.Tangwe	-	-	+	+	+/-
1. Balung, 2.Topkegola 3.Thudam 4.Lhomi (Shinsawa) 5.Sherpa 6. Hyolmo 7. Dolpo, 8.Bhote 9.Lhopa 10.Mugali	-	-	+	-	+
1.Gurung, 2.Byansi	-	-	+	+	+

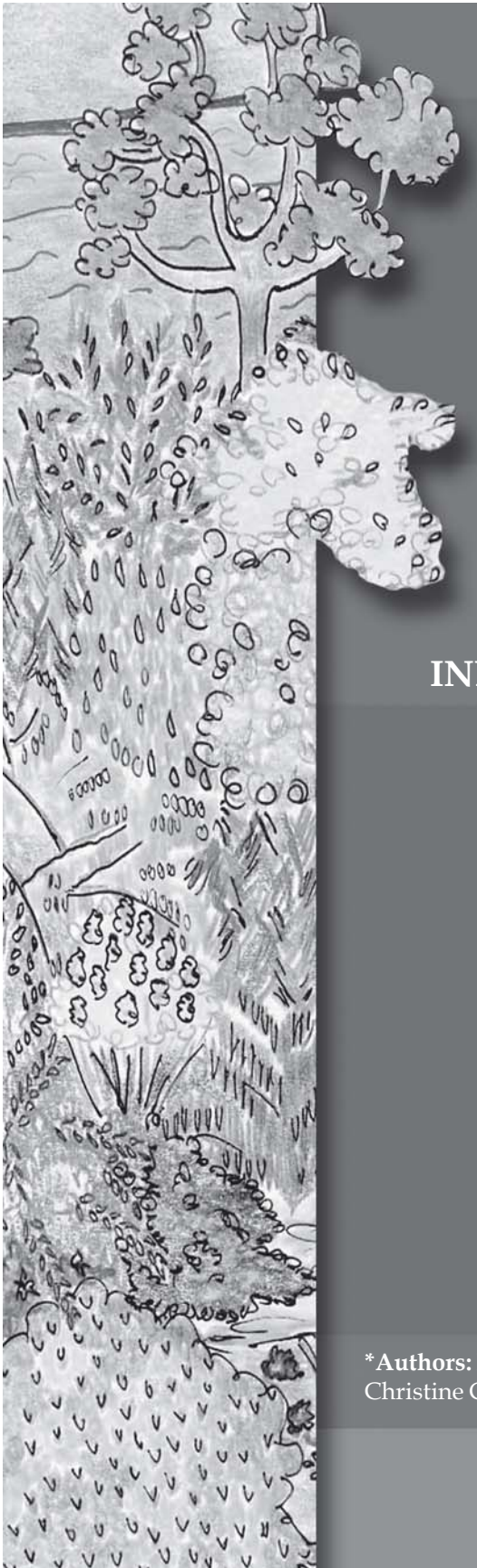
Source: Adapted from Institute for Integrated Development Studies (IIDS).

Note: +means main strategy of subsistence
-does not mean main strategy of subsistence
+-means some groups or group members are involved in this strategy

Annex E. Population by mother tongue in Nepal

S. No	Mother tongue	Total
1	Nepali	11053255
2	Maithili	2797582
3	Bhojpuri	1712536
4	Tharu(Dagaura/Rana)	1331546
5	Tamang	1179145
6	Newar	825458
7	Magar	770116
8	Aawadi	560744
9	Bantawa	371056
10	Gurung	338925
11	Limbu	333633
12	Bajika	237947
13	Urdu	174840
14	Rajmanshi	129829
15	Sherpa	129771
16	Hindi	105765
17	Chamling	44093
18	Santhali	40260
19	Chepang	36807
20	Danuwar	31849
21	Jhangar/Dhangar	28615
22	Sunuwar	26611
23	Bangla	23602
24	Marwadi(Rajasthani)	22637
25	Majhi	21841
26	Thami	18991
27	Kulung	18686
28	Dhimal	17308
29	Angika	15892
30	Yakkha	14648
31	Thulung	14034
32	Sangpang	10810
33	Bhujel/Khawas	10733
34	Darai	10210
35	Khaling	9288
36	Kumal	6533
37	Thakali	6441
38	Chantyal	5912
39	Nepali sain Bhasa	5743
40	Tibetan	5277
41	Dumi	5271
42	Jirel	4919
43	Bambule/umbule	4471
44	Puma	4310

45	Hyolmo	3986
46	Nachhiring	3553
47	Dura	3397
48	Meche	3301
49	Pahari	2995
50	Lepcha/Lapche	2826
51	Bote	2823
52	Bahing	2765
53	Koi/Koyu	2641
54	Raji	2413
55	Hayu	1743
56	Byanshi	1734
57	Yamphu/Yamphe	1722
58	Ghale	1649
59	Khariya	1575
60	Chhiling	1314
61	Lohorung	1207
62	Panjabi	1165
63	Chinese	1101
64	English	1037
65	Mewahang	904
66	Samskrit	823
67	Kaike	794
68	Raute	518
69	Kisan	489
70	Churauti	408
71	Baram/Marmu	342
72	Tilung	310
73	Jero/Jerung	271
74	Dungmali	221
75	Oriya	159
76	Lingkhim	97
77	Kusunda	87
78	Siddi	72
79	Koche	54
80	Hariyanwi	33
81	Magahi	30
82	Sam	23
83	Kurmali	13
84	Kagate	10
85	Jhonkha	9
86	Kuki	9
87	Chhintang	8
88	Mizo	8
89	Nagamese	6
90	Lhomi	4
91	Assamise	3
92	Sadhani	2
93	Unknown Language	168340



4

THE POSSIBILITY OF REDD+ IN THE PHILIPPINES: WHAT DOES THIS MEAN TO INDIGENOUS PEOPLES?

By
Tebtebba*

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INTRODUCTION

Rationale and Background

The Philippines is not yet a REDD country since the government has not formally applied to become one. However, there is a strong possibility that it will be a REDD country in the future. In anticipation of this possibility, there is a need to establish the basic data base on the interrelationships among forests, indigenous peoples and the state. The information that will be generated by this study can provide basis for policy advocacy by indigenous peoples' organizations at the local to national and international level.

Existing data on forests and indigenous peoples in the Philippines is quite extensive but there is a need to update and analyze these data anew in view of the opportunities as well as threats posed by REDD and in light of UNDRIP, rights-based and ecosystems approaches to climate change. Hence, this study has been undertaken.

Research Objectives

Overall, this study aims to produce a country report on the situation of the forests and how they are managed. Specifically, it seeks to:

1. Present a state of forests in the Philippines (forest cover versus other land uses, location of forests, potential REDD areas, juxtaposed with the location of indigenous communities);
2. Discuss the uses/significance of forests on indigenous peoples;
3. Illustrate indigenous peoples' strategies on sustainable

forest resource management and enhancement of carbon stocks;

4. Study and analyze the policy environment for climate change, REDD and indigenous peoples (i.e., existing national laws on forests, tenurial instruments on forest lands, indigenous peoples' rights and climate change);
5. Identify actual and potential issues when REDD is implemented in the country;
6. Discuss the various actions already undertaken in response to these issues and challenges;
7. Offer recommendations on how to address the issues and challenges that affects the forests and indigenous peoples.

This study is just a part the of Project of Climate and Forest Initiative 2009 entitled, "Ensuring the Effective Participation of Indigenous Peoples in Global and National REDD Processes" funded by the Norwegian Agency for Development Cooperation (NORAD) through Tebtebba. It is one among the eight countries (Nicaragua, Peru, Kenya, Cameroon, Vietnam, Indonesia, Philippines and Nepal) funded to do National Policy and Program Analysis. Research outputs will inform, support and contribute to the other components of the project which are Education and Advocacy.

THE PHILIPPINE FOREST SITUATION

The Philippines is the world's second largest archipelago country after Indonesia, with more than 7,100 islands covering 297,179 km² in the westernmost Pacific Ocean. It has been labeled both a hot spot and a mega-diversity country, placing it among the top priority hot spots for global conservation (Conservation International). According to Kummer (1992), more than half of the total land area of the Philippines is upland with approximately 150,000 square kilometer expanse. These areas are particularly important because almost all of the remaining 71,000

square kilometers of forests in the country are found in the uplands (Delgado and Canters 2009).

At least three forest inventories have been conducted in the Philippines since the 1960s by the country's lead agency, the Department of Environment and Natural resources. The Forest Management Bureau (FMB) reports that the first inventory in 1969 showed that the country had a forest cover of 10.5 million hectares. In the second forest inventory in 1987, the forest area had gone down significantly to 6.5 million hectares, mainly because of commercial logging activities during the Martial Law years. In the latest forest mapping activity in 2003, the country's forest cover was placed at 7,168,400 hectares. Of the three forest inventories, only the 2003 included the measurement of biomass which is the principal basis for measuring carbon content and carbon dioxide emissions from forests. All the inventories prior to 1988 were done using projection model with remote sensing while the 1988 and 2003 used actual forest inventories done on location or ground truthing.

FMB also reports that the Philippines has a total land area of 30 million hectares and more than half, or some 15.8 million hectares, are legally classified as forest lands. Palawan contains at least 61 per cent (highest forest cover in the country) of the forest cover of Region 4B and according to the Forest Management Bureau (FMB), this is because logging has been banned since the passage of the Republic Act No. 7611 in 1992 or the "Adopting the Strategic Environmental Plan for Palawan" (FMB 2009). Cagayan and Isabela provinces, which are both in the Northern Luzon are next to Palawan in terms of forest cover with 424,213 and 411,804 ha, respectively. All other provinces with high forest cover are found in the Central and Southern Luzon provinces (Aurora, Quezon, Apayao, Mindoro Oriental and Occidental) and in the Mindanao area.

The forest inventory of the FMB shows a significant increase in the forest cover of the country from 6.5 million to 7.2 million hectares from 1987 to 2003 respectively. The increase was attributed to the establishment of tree plantations (in private lands and areas covered by tax declarations) and the substantial decrease in the area covered by logging concessions since the previous forest assessment (Arquiza 2009). This was confirmed by

the Forest Resource Assessment (FRA). The Forest Resource Assessment (FRA) explains that the increase in forest cover is due to the decrease in the coverage of Timber License Agreements all over the country from 120 covering 4.74 million hectares in 1988 to .66 million hectares in 2003.

Meanwhile, the Philippines has adopted the UNFCCC's definition of forest as "an area of at least half a hectare (5,000 square meters) in size with a 10 per cent stocking level," meaning, that at least 500 square meters of which should be shaded by trees with a minimum height of five meters. Under the Memorandum Circular 2005-05, even private lands with tree plantations (including bamboos and rubber trees) meeting the new forestry standard are included qualify as forests, as opposed to the old definition that only public lands with a minimum area of one hectare (not including tree plantations) could be called forest lands (Office of the President 2005). It is on this basis that critics claim that the increase in the forest cover of the Philippines in recent years is actually attributable only the change in definition of the forest.

In its Working paper report to FAO (Food and Agriculture Organization) in 2009, FMB estimated that while the area of the forest cover has increased, the quality of the forest has decreased (Forest Management Bureau 2009). While there is really an increase of number of trees and areas covered in tree plantations, there is still continuous degradation in the natural forests.

Since 2003, the Forest Management Bureau has been starting to collect data on the volume of trees on a national scale and the data is being updated every year. According to Arquiza (2009), this could serve as the country's national baseline for calculating carbon emissions from forests. The total above ground biomass in Philippine forests for 2003 was 3.6 billion tons while the average above-ground woody biomass in forest lands was calculated at 240.93 tons per hectare (Forest Management Bureau 2009).

According to a study of Lasco and Pulhin (2003), the largest area of the forest in the country is being utilized for agroforestry which covers an area of 5,859,000 hectares while secondary forest is at 2,731,000 hectare-land area. Noteworthy on the other hand is the old growth forest which is composed of a small area

that amounts to 805, 000 hectares only. Table 1 below shows the data on land use within classified forest land in the country.

Table1. Area according to land use in the Philippine forest lands

Forest type	Area (in hectares)
Agro-forestry	5,859,000
Secondary forest	2,731,000
Brushland	2,232,000
Grassland	1,800,000
Mossy forest	1,040,000
Old growth forest	805,000
Tree plantation	600,000
Submarginal lands	475,000
Pine forest	228,000
Mangrove forest	112,000

Source: Rodel Lasco and Florencia B. Pulhin. 2003. Philippine Forest Ecosystems and Climate Change: Carbon stocks, Rate of Sequestration and the Kyoto Protocol In Annals of Tropical Research 25(2): 37-51 (2003). Available: http://espace.uq.edu.au/eserv/UQ:8168/n11._philippine.pdf. Accessed January 20, 2010.

Meanwhile, according to Lasco and Pulhin (2003) there are about two to nine million hectares of denuded and degraded upland areas that need immediate rehabilitation in the Philippines. They added that these areas are former tropical forests but are now mainly grasslands, brushlands and cultivated farms. Studies also show that the present rate of reforestation is less than 100,000 ha/yr and given this progress, it will take more than 100 years to fully rehabilitate the denuded forest areas.

DRIVERS OF DEFORESTATION

Commercial Logging

According to Arquiza (2009), commercial logging has been identified as the main reason for the steep decline in forests from the 1960 to mid-80's. Lasco (2003) attributed commercial logging to the export policy under Martial Law; where the government placed 10 million hectares or one third of the country's land area under the control of timber concessionaires.

The Timber License Agreement (TLA)[2] which was under the 1987 Constitution serves as the main tenure instrument for commercial loggers. As this agreement is valid for 25 years and renewable for another 25 years, logging has facilitated the establishment of communities in many upland and forest areas. (Lasco, Visco and Pulhin 2001). The Philippine Selective Logging System[3] has not prevented TLA holders to log beyond the sustainable volume, practice clear cutting, use heavy equipment during logging operations and road construction (Generalao, 2000).

Poverty and Resource Depletion

The United Nations Population Fund reported in 2004 that despite the abundance of natural resources in upland areas, 50 per cent of the upland residents are classified as "economically poor" or living below the poverty line (Delgado and Canters 2009). The NSCB reports that there is 28.4 per cent incidence of poor families in 2003 and it is assumed that poor families in the uplands to be a lot higher. In addition to this, over 95 per cent of families are considered poor in many Community-Based Forest Management (CBFM) sites (Carandang 2005). An assessment of CBFM in the Philippines in 2001 revealed that even migrants who are unable to stretch out a living in the lowlands, has resulted in continuous influx to upland forest lands in search of lands to cultivate (Guiang, Borlagdan and Pulhin 2001).

Resource depletion exacerbates the situation of the Philippine forests. According to FAO (2001) domestic demands for wood products is annually increasing by two to five percent.

This is due to growing domestic consumption and the increasing export-oriented furniture industry. For instance, Tacio (2000) said that the total consumption of fuel wood in 1985 was estimated at 28.5 million cubic meters which was about the same as the volume of wood lost to deforestation and nearly eight times more than commercially harvested wood that year (Tacio 2000). FMB (2009) noted fuel wood collection and charcoal making for commercial purposes as among the reasons for forest destruction. The situation has been aggravated by the continuing rise in the price of fossil fuel including liquid petroleum gas (LPG) for domestic use.

On the other hand, the domestic needs for logs and timber are not being met locally. Thus, the Philippines had to import from other countries. FMB reports that out of the total supply from 1989, the share of imported logs increased from 5.5 per cent to 16-20 per cent in 1997. Further studies by the FMB/DENR showed that reforested areas by public and private sectors in the country has generally decreased from 1991-1997. As early as 1990, the DENR projected that the country plantations would need to produce at least 2.77 million cubic meters of timber annually to meet log supply and other construction timber demands. However, the actual timber produced from plantations was 45,000 million cubic meters which was way below the demand (Durst et al. 2001).

Upland Migration and Agricultural Expansion

Agricultural expansion is another driver of change in the Philippine forestry. The opening up of roads for the logging industry has eventually led to population increase in the uplands. There are no official data from the government on the actual upland or forest occupants in the Philippines but there is an estimated total population of around 12 million indigenous peoples found in the various parts of the country, comprising 17 per cent of the total population as of 1996 (National Statistical Coordination Board 2005).

A study on upland migration revealed that of the 18.6 million people living in the uplands in 1988, six million were there before 1945, two million migrated between 1945 and 1948 and

10 million migrated after 1948 (Cruz n.d.). Similarly, the highest rates of population growth in the uplands were in municipalities with logging concession and rates of migration continued to increase in the 1980s (Tacio 2000).

Carandang (2005) says that indeed, there are strong linkages between population growth, resource depletion, environmental quality, and the incidence of poverty. This is because environmental degradation creates scarcity of productive natural resources and scarcity results in aggravated poverty (Ellorin n.d.).

Meanwhile, with the Biofuels Act of 2006,[4] the government has encouraged local and global institutions and multilateral bodies to invest and develop biofuel plantations and refineries in the country. The government has done this by giving monetary and other incentives to investors.

As the government is still coming up with a detailed map on the status of forestry and deforestation in the Philippines, reports on existing and planned biofuel plantations, especially in Mindanao are still fragmented. Biofuel investors are now prospecting for possible sites for biofuel plantation and expansions. At present, this fact is being seen as a threat to existing natural and production forests in the country.[5]

This is also true with high value crops such as bananas, coconuts and pineapples along with biofuels. The government has been eying possible expansion of production areas not just for fruit but also for sources of ethanol such as cassava and sugarcane which are being promoted by the Philippines.

Government Policies

Meanwhile, according to environmentalists, several government policies also have intentionally contributed to the conversion of forestlands into other land uses. The Mining Act of 1995 (RA No. 7942), for instance, identifies areas where mining explorations can be done. Unfortunately, timberlands and forestlands areas covered by tenure agreements such as the TLA, CBFMA, IFMA as defined by law are open to mineral agree-

ments or financial or technical assistance agreements and others are open to mining operations.

In the study entitled "Exploiting Natural Resources: Growth, Instability, and Conflict in the Middle East and Asia," mining was identified as one major cause of deforestation and forest degradation, as commercially valuable minerals are often found in the ground beneath forests. According to Cronin and Pandya (2009), mining, especially large-scale, open-pit mining operations can result in significant deforestation. This results from the clearing of the forest to access mineral deposits and to open remote forest areas for miners.

Aside from this, other key forestry policies are ironically seen as drivers of deforestation. The Revised Forestry Code (Presidential Decree 705),[6] for instance, has encouraged the protection, development and rehabilitation of forest lands. Nonetheless, it still continued to support the implementation of selective logging. FAO (2001) claims that the system of awarding licenses was privileged-driven and it has contributed to the accelerated forest degradation and loss of forest cover (Durst et al. 2001).

Executive Order (EO) 192 (otherwise known as the Reorganization Act of the Department of Environment and Natural Resources) guided the DENR in coming up with the Master Plan for Forestry Development (MPFD).[7] EO 192 was mandated to enhance the contribution of natural resources in national economic and social development and to expedite mineral resources surveys, promote the production of metallic and non-metallic minerals and encourage mineral marketing.[8]

A recent study conducted by the FMB (2009) reports that the trend in the political and institutional environment of the forestry sector in the country has been gearing towards deregulation and democratization. This trend has been observed in the past years where communities, through the CBFMA and SIFMA can now harvest from natural forest. The DENR has also waived requirements for cutting permits for trees planted in private lands and permits to transport these. The DENR has even lifted moratoriums in the establishment of new sawmills (FMB 2009). In addition, Presidential Decree 464 (Enacting the Real Property Tax code) says that trees planted in private lands

are taxable as these are defined improvements[9] on the land. This law indirectly discourages rather than provides incentive to people who may wish to contribute to the reforestation effort.

STATE POLICIES ON FOREST MANAGEMENT

The law provides that the state has full control and supervision of natural resources—that it can explore, develop and utilize all lands of the public domain, waters, minerals, coal, petroleum and other mineral oils, all forces of potential energy, fisheries, forests or timber, wildlife, flora and fauna and other natural resources except agricultural lands. With this constitutional mandate, the government legislated the Department of Natural Resources to be the primary government agency responsible for the conservation, development and proper use of the country's environment and natural resources as well as licensing and regulation of all natural resources (EO 192, 1987) (USAID.gov).

With RA 7160 (Local Government Code of 1991), forest management has involved other stakeholders like the LGUs which allow them to enforce forestry laws in community based forestry projects, integrated social forestry programs and communal forests, subject to supervision, control and review of the DENR. Partnership with the Department of Interior and Local Government (DILG) was also sought through the issuance of Joint Memorandum Circular No. 2003-01 entitled "Strengthening the DENR-DILG-LGU Partnership on Devolved and other Forest Management Functions. Institutions like the University of the Philippines were also given jurisdiction of forest management with respect to Mt. Makiling and PNOC over Tiwi Geothermal, Tongonan and Palimpinon watershed areas (USAID.gov).

The foundation of forest policy in the country is PD 705 (1975) otherwise known as the Revised Forestry Code of the Philippines. The code contains basic forestry standards and practices such as areas needed for forestry, multiple use, forest utilization and management, and criminal offenses and penalties.

Subsequent laws and policies were further promulgated but the problem of harmonization and consistency in provisions for protection of the rights of various stakeholders, especially indigenous peoples, still persists.

Indigenous Peoples Experiences with State's Policies on Forest Management

As mentioned earlier, government administered policies like Timber Licensing Agreements (TLAs) were given to private companies for forest concessions. Through these TLAs, private companies were given privileges to utilize forest resources with right of possession and occupation but with corresponding obligation to develop, protect and rehabilitate the forest. While the widespread issuance of TLAs brought prosperity to some (monopoly of the monetized more influential people and usually politically connected people who represent a tiny portion of the citizenry), they have caused greater misery to other people.[10] The indigenous peoples were continuously treated as squatters and threatened with eviction or imprisonment if found clearing forest from public land (Gould 2002). In 2007, the FMB reported that a number of TLAs were issued covering a total of 691,019 ha mostly located in Agusan del Sur and Surigao del Sur. Among those on record are TLAs which had already been suspended. Hence, the operation of TLAs is still on-going amidst some moves to ban the logging operation in the 90s.[11]

Before TLAs were deemed unconstitutional, there were a total of 300 TLAs issued in the early 90s (Victor and Pulhin 2006). By then, the license system had been discontinued and replaced by several newly-developed measures that can be done by the State through co-production, joint venture or production sharing agreements. These approaches were undertaken to ensure that the State will get a fair return on the utilization of natural resources. However, stipulations for such arrangements were not perfected because of the ambiguous definition of benefit sharing between the government and the partner stakeholder. This forms part of the state's major policy reforms to stop forest destruction. A wide range of measures were promulgated which included log and lumber export bans, delineation of boundaries

between forest lands and national parks, a ban on timber harvesting in old growth forests, increased forest charges, massive tree planting efforts, reforestation and establishments of plantations, creation of a sound national protected area system to promote biodiversity conservation, and implementation of ecosystem and watershed approach in forest management (Victor and Pulhin 2006).

The changing policy direction of the state resulted in the creation of the following policies: Community Based Forest Management Agreement (CBFMA), Industrial Forest Management Agreement (IFMA), the Socialized IFMA (SIFMA), and the Protected Area Community Based Resources Management Agreement (PCBRMA). The IFMA, SIFMA, and CBFMA are stipulated under Section 2.17 of the DENR's Rules and Regulations Governing the Special Uses of Forestlands for Tourism Purposes. Other categories in the same section are Timber License Agreement (TLA), Forestland Grazing Management Agreement (FGMA), Forestland Management Agreement (FLMA), Community Forest Management Agreement (CFMA), Community Forest Stewardship Agreement (CFSA), and Communal Forest (CF) (Bengwayan 2004). These instruments as implemented by the government have gradually influenced and impacted not only the state of forests in the Philippines but also on the state of indigenous peoples.

The implementation of the above policy reform or programs received both positive and negative feedback especially from civil societies, indigenous peoples' advocates and supporters and from the indigenous peoples themselves. Experiences of indigenous peoples revealed that there were violations committed against their rights with respect to the observance of free, prior and informed consent (FPIC), meaningful participation of indigenous peoples at various levels of planning and decision-making and recognition of indigenous peoples' self-determined development.

The CBFM (Community Based Forest Management) project for instance has allowed indigenous peoples to obtain a degree of tenure and some rights over their land. This is a strategy for achieving sustainable forestry and social justice, as spelled out in the Presidential Executive Order No. 263 of 1995 (Guiang and

Castillo 2005). Guiang added that CBFM is a natural response to the increased migration into the uplands, where an estimated 20 million people live. He added that CBFM is also a way of addressing social inequity, the stagnant economy and the skewed distribution of arable land in the lowlands under the National Land Reform Programme. On a similar note, Birdlife International (n.d) reports that half of the millions of people who live in upland rural areas of the Philippines are the poorest in the country.

With respect to promoting the "equitable access" policy and promoting rehabilitation and restoration of forest lands vis-a-vis establishment of plantations for wood supply, DENR issued Socialized Industrial Forest Management Program (SIFMA)[12] and Integrated Forest Management Agreement (IFMA). However, both government interventions received criticisms due to their adverse impacts on indigenous peoples. As the government approved of "development projects" using these mechanisms, a cycle of dispossession and violence was spurred to the detriment of the local people (World Rainforest Movement 2001). Violations of the FPIC by corporations were prevalent. The case of Higaonons in Misamis Oriental against Southwood Timber Corporation (STC) clearly illustrates that no consent was secured from the indigenous peoples when the Provincial Board of Misamis Oriental issued IFMA to STC (SunStar [Cagayan de Oro] 12 February 2010).

What aggravates the situation more is the facilitation of the NCIP in the FPIC activities in the community which results in the issuance of certificates of precondition. The issuance of a logging permit to STC covering 11,476 hectares, including more than 8,000 hectares within the ancestral domain of Minalwang Higaonon Tribal Council (Mihitrico), was also claimed by the Minalwang Higaonon through its leader, Carl Cesar Rebuta to be illegal. Rebuta reiterated that development must come from the people themselves and not from external influence, "while we think that logging is development project, this doesn't correlate(s) that this is also the development that the IP (indigenous peoples') community wants" (SunStar [Cagayan de Oro], 12 February 2010).

FLGA,[13] another instrument used by government to generate revenue by deriving economic rent from grazing management agreement holders also has its weaknesses. The FLGA regulation mandates the DENR to identify areas suitable for grazing based on specific criteria and to issue FLGAs/FLPAs to qualified persons, associations or corporations to develop and manage those areas for cattle, livestock production in support of the food production program of the government.

Apart from revenue generation, ecological consideration which includes improved grazing lands in terms of increased forage production and improved forage quality, without jeopardizing its immediate environment should be ensured. Yet violations of agreements by the private individuals and/or corporations are evident as in the case of Talaandig people living in Maramag, Bukidnon and Baclig Ranch. The Talaandig people clamored for the cancellation of the Forest Land Grazing Lease Agreements (FLGLAs) signed between the Department of Environment and Natural Resources and ranch owners in Bukidnon since the area was converted to a plantation instead of utilized as grazing land.[14] According to the Talaandigs, this is a violation of the FLGLA which only allows 20 hectares to be cultivated for food production.

To affect a more decentralized and participatory approach in managing forest resource, RA 7586, otherwise known as NIPAS law was passed on June 1, 1992. The NIPAS law provides a paradigm shift in protected area management from the national government through the Department of Environment and Natural Resources to the local body known as the Protected Area Management Board[15] (PAMB) (Saway and Mirasol 2004). The implementation of the NIPAS law is also deemed to be consistent with the Indigenous Peoples Rights Act (IPRA).

However, several NGOs, community-based organizations and community leaders pointed out that PAMB has not been effectively functioning due to limitations varying from lack of documents in local languages and resources for meetings and workshops to the fact that the PAMB's chairperson is a government officer and that local people are usually shy to voice their concerns in the presence of government officials (Saway and Mirasol 2004). Hence, the decision-making power still remains

firmly in the hands of the government. What is more disheartening is the fact that the presence of indigenous peoples in protected areas is being seen as a problem or threat to the degradation of resources.[16] During the Philippine Workshop on securing Indigenous Peoples Rights in Protected Areas (14-15 April 2009, Sabang, Morong Bataan), this claim however was strongly opposed by the indigenous peoples who noted that this is just another tactic of the government to manipulate policies that are meant to uphold the rights of indigenous peoples. Several experiences of indigenous peoples showed that there have been violations of indigenous rights in protected areas like in the case of Mt. Kitanglad Range Natural Park. It was pointed out that there was a violation committed against the indigenous peoples living in this area because the government allowed the plantation of bamboo inside the protected area without the consent of indigenous peoples living in that community.[17]

During the technical workshop on the review and revisions of the NIPAS (National Integrated Protected Areas System) Act IRR (Implementing Rules and Regulations) on July 20-22, 2005, it was revealed that one weakness of the act was that consultations conducted among stakeholders, especially with the indigenous peoples, were inadequate (DENR.gov). Hence, there is a need for strong coordination and consultation with the affected stakeholders which could be attained by meaningful and equitable participation from the indigenous peoples.

The experience of Aetas, living in the buffer zone of Bataan National Park, with the European Union (EU)-funded Conservation of Priority Protected Areas System Project (CPPAP) showed the extent of community participation which was less than what was expected. From the assessment study conducted by Tebtebba in 2000 on CPPAP in Bataan, it was found out that indigenous communities were only involved during the implementation of the project but not during the project planning (Rovillos et al. 2000). Again, this situation implies that the mechanism for involving indigenous peoples in governance and decision-making over their resources is very limited if not superficial. Such a limiting venue for participation, however, could be the impetus for indigenous peoples to pursue deeper involvement in the process.

Given the shortcomings in implementing the NIPAS Act, the passage of the Mining Act of 1995 and the Fisheries Act of 1998 added more trouble than peace to the already degraded resources (Senga 2001). These enactments further exposed the dwindling natural resources to undue exploitation. Because of the government's priority to harness economic growth, operations of development projects in the protected areas are allowed even at the expense of the environment, not to mention the impact of these to indigenous peoples.

Undoubtedly the above state's laws on forest management have somehow improved forest protection in parallelism with their unintended negative impact. The forest protection initiatives such as controls on commercial logging and community-based reforestation have somehow increased the country's resilience to climate change-reforestation efforts can represent enhanced carbon stocks and adaptive watershed management to reduce flooding in the country.[18] While not sufficient to completely respond to the prevailing concern on climate change, these laws are significant legal springboard for the country as it opens itself to mitigation strategy like REDD plus. As noted in the National REDD Plus Strategy of the Philippines, there is no specific national legal framework on REDD plus but its operationalization are subsumed in a number of existing laws on the environment and forested area such as those mentioned above.

Recently, the Congress passed the Act Providing for Sustainable Forest Management which entails the management of forests to achieve sustainable development by ensuring effective delivery of forest goods and services.[19] In this respect, one essential area that requires better understanding is the negotiability and flexibility of this law to effect harmonious management of the forest.

State Policies vs. Customary Laws

Clearly, the above discussion reveals some threats and problems being faced by indigenous peoples as they continue to use their traditional system of managing their resources. For centuries, during and after the colonial period, management of re-

sources in the Philippines is strongly centrally-determined, top down and non-participatory (Sajis n.d.). Such approach to managing resources especially forest resource had significantly disregarded the existing management system being practiced on the ground by indigenous peoples through their customary laws and practices.

Progress in attaining sustainable management of forest, therefore, depends more on empowering local communities to manage their resources. Such problems on overlapping institutional roles, divergence in goals and conflicting priorities must be given proper attention. Noting the conflict between the national law and customary law, the passage of IPRA ignites hope to counterbalance the conflict.

The IPRA contains provisions respecting the rights of indigenous peoples/indigenous cultural communities. Under Section 2 of IPRA the state was mandated:

> *to protect the rights of ICCs/IPs to their ancestral domains to ensure their economic, social and cultural well being and shall recognize the applicability of customary laws governing property rights or relations in determining the ownership and extent of ancestral domain.*

Moreover, "the state must also recognize, respect and protect the rights of ICCs/IPs to preserve and develop their cultures, traditions and institutions." And "it shall consider these rights in the formulation of national laws and policies (IPRA)." Despite some criticisms on the IPRA, this provides a legal backbone for the recognition of indigenous peoples' rights. However, it appears that some ambiguities still persist though arising from the statement "...framework of national unity and development." As revealed in the report by ADB, the state's constitutional recognition of indigenous rights "in the context of national development" did not fundamentally change the situation of the indigenous population (Rovillos and Morales 2002).

Interestingly, the notion of poverty and development is another dimension which is a bottleneck among the indigenous peoples in pursuing their self-determined development. Mainstream characterization of "what/who is poor" being imposed among the indigenous communities often justifies the exploita-

tion of the land and resources of indigenous peoples. Hence, when massive reforestation programs are implemented in the land of the indigenous peoples—in which the inhabitants are requested to plant certain species of trees, the essence of development loses ground to the detriment of the indigenous peoples. Often, the indigenous peoples are forced to cope with their subsistence by utilizing a limited area for agricultural activities. Apart from this, indigenous peoples are also displaced when government forces conduct military operations in the area to deal with pockets of resistance to the projects (Rovillos and Morales 2002).

When the government has embarked on a mission to establish a system of protected areas as provided in the NIPAS Act, the idea of "conservation" and "protected areas" were challenged by indigenous peoples. The NIPAS Act was meant to protect endangered plant and animal species. Also it provides that the state can establish national parks as designated areas for the preservation of biological resources. Again, ambiguity and inconsistency of the law insofar as partnerships between indigenous communities and government agencies become more apparent.

The conservation scheme being implemented by the government excludes local residents while entrusting the areas to state bodies. The provisions for people's participation in protected areas management seem to be confined to an initial level of consultation and do not extend to the identification, planning, and implementation levels. Hence, when the Calamian Tagbanwa in Coron Island refused to gazette the whole island as a Protected Area, this shows how well the indigenous peoples chose to protect their resources with the use of rights-based approach instead of opting for the uncertain promise of participation in the PAMB (Farhan 2002). The experience of the Calamian Tagbanwa obviously illustrates a case of legal pluralism at work in resource management—one being imposed by the state, and the other being in the hands of the indigenous peoples themselves.

In a country like the Philippines where the nature of policies posits full state control over natural resources, the indigenous peoples managed to work their way around and use state policies as leverage to advance their cause. Some indigenous peoples'

communities in the country have used various state policies such as the CBFM, IFMA (International Forest Management Agreement) and other community forestry management laws in order to further push the government to recognize rights to ancestral lands through the CADC (Certificate of Ancestral Domain Claim) and CADT (Certificate of Ancestral Domain Title).

The case of Ikalahans in Nueva Vizcaya reveals that legal recognition of indigenous rights and security of tenure, are important conditions for enabling indigenous peoples' participation in any government initiatives. While this was not an easy undertaking for the Ikalahans of Nueva Vizcaya to gain control over their forestland (See boxed article), the concerted efforts of this indigenous group pushed the government to devolve forest management to the local community. In this case, devolution[20] was facilitated by officially securing sanctioned tenure and management rights over their forestland and interventions of civil society intermediaries notwithstanding the strong collective action of the Ikalahans.

The Philippines does have good policies which have improved participatory engagement in forest protection. While there were failures of these policies which have been noted, the change in policy direction by the government in the latter decades shows the attempt to save substantial areas of remaining forest in the country. This move however, has gradually created a dichotomy, if not reinforced the complexities of diverse approaches to forest management that have sprung from legal backdrop or long standing indigenous knowledge.

Over the years, the implementation and replacement of forest laws have enabled concerned authorities to gain insights on which programs have worked or failed. Based on indigenous peoples' experience, the challenge remains to be that of ensuring meaningful and equitable participation in decision-making. Apparently, tension always surfaces when the issue of decentralization comes into the picture. The degree of success in relation to achieving a more "people-centered" approach to forest management has been ambiguous and often measured in terms of the government's targeted outputs and deadlines at the expense of indigenous peoples' meaningful, process-oriented participation.

The Ikalahans' Battle to Land Tenure

In 1968, approximately 200 hectares of land between San Nicolas, Pangasinan and Sta Fe were titled to lowlanders. The titled lands were part of the Ikalahan ancestral domain. These unfortunate events caused panic to the Ikalahans. The Ikalahans filed a case in court to nullify the titles given to the moneyed owners. Initially, they lost but on August 1972, with the help of the Commission on National Integration (CNI), an agency under the office of the President, which aims to protect the welfare of the indigenous cultural communities, they won.

Subsequently, in 1970, the government planned to develop 6,300 hectares of the Ikalahan domain to a vacation center to be called the "Marcos City" after the name of then-President Ferdinand Marcos. Some moneyed people even showed fake land titles to the villagers for the purpose of land grabbing. Once again, the Ikalahans filed a case in court for the government to recognize their land claims. The case was dismissed at the lower court but with assistance form one Atty. Julian De Vera, a retired lawyer of the CNI, the people pursued the case to the higher courts and succeeded in effecting the revocation of the lowlanders' land titles and abandonment of the plan for a vacation center in 1972.

In 1973, the Kalahan Educational Foundation[21] was established and was registered under the Securities and Exchange Commission (SEC) as a peoples' organization by the elders with the help of an American missionary. Seven months later, the Kalahan Academy was built to address the felt need of the people for education. The high school was established to maintain cultural identity of the Ikalahans and prevent risks of cultural erosion.

In 1974, the Ikalahans acquired legal land tenure from the government through Memorandum of Agreement No. 1 (which was so named as it had no precedent) for a 25-year forest lease with the government through the Bureau of Forest Development (now Forest Management Bureau). The agreement acknowledged that 14,730 ha of land were to be managed by the occupants through the KEF for a period of 25 years, renewable for another 25 years, in exchange for

protection of the watershed. In 1996, the Ikalahan elders submitted a petition for Certificate of Ancestral Domain Claim to the Provincial Environment and Natural Resources Office (PENRO) in Bayombong, Nueva Vizcaya with the help of the Philippine Association for Intercultural Development (PAFID). In that same year, the PENRO recommended the granting of a CADC to the Ikalahans (Resurrection 2003) . The CADC covers 16 villages including Imugan where the KEF is located. Through 1996 to 1998, the KEF has attained domain claims in the adjacent provinces of Nueva Ecija and Pangasinan that have expanded their management activities to nearly 55,000 hectares in 1999.

All the stakeholders of the whole Ikalahan ancestral domain claim met and as a community, drafted their Ancestral Domain Sustainable Development Plan and Program (ADSDPP) with the help of the concerned government agencies. With this activity, the elders were consulted with the inter-barangay (village) and inter-cluster boundaries. Upon completion of the ADSDPP, it was submitted to the NCIP to support their petition on conversion of their Certificate of Ancestral Domain Claim to a title (CADT). Finally, the Ikalahans CADT was approved in 2006.

Source: Leah Abayao, Jo Ann Guillao, Mikara Kaye Jubay and Helen Magata. *Climate Change and Indigenous Peoples in the Philippines: The Calamian Tagbanua and the Ikalahan views and actions on Climate Change.* (Forthcoming publication)

The policy environment seems to offer a more decentralized system of decision-making because of the existence of a number of policies and institutional arrangement as those mentioned in the National REDD Plus Strategy.[22] The flexibility of these policies however is challenged as the state pushes for a more structured process of forest governance. The fear of bureaucratic control by the government is still overwhelming because of the Regalian Doctrine that generally guides the state's policy formulation and implementation. Moreover, the increasing attempt to centralize decision-making (i.e., presence of more structured policies and laws) may threaten level of transparency if significant engagement of other stakeholders is disregarded.

If the government wants to increase transparency and flexibility then it must empower communities by allowing them to exercise more control over their resources. The state must avoid reductive measures and reliance on standardized rules or policies alone without regard to indigenous ecocosmology. The government must not only preoccupy itself with the goal to increase efficiency because this may lead to inflexibility. If indigenous knowledge is ignored or neglected, the essence of participatory governance will not be satisfied and the process can never arrive at an adequate level of refinement.

To this day, the Philippines' journey toward sustainable development vis-a-vis the use and management of the forest is a painstaking process that must address the interests not only of the government but most especially the local communities—the indigenous peoples. The meaningful success of the forest protection initiative clearly hinges on the quality and quantity of indigenous participation in all processes of negotiations. If we want to achieve a successful interfacing of key players in the REDD plus program, then policies and programs must be harmonized within the framework of indigenous peoples' rights. Without regard for the basic rights of indigenous peoples, indigenous people's engagement degenerates to pure rhetoric or mere tokenism.

SIGNIFICANCE OF FORESTS TO INDIGENOUS PEOPLES

Climate change has put the forest into the limelight not just as a source of GHG (greenhouse gas) emission but as part of the solution to the problem. According to FAO studies, the world's forests and forest soils currently store more than one trillion tons of carbon which is twice the amount found floating free in the atmosphere (FAO News Room 2006). Hence, humans *could better combat climate change* not just by preventing forests from being destroyed, but through afforestation and reforestation of non-forested lands (FAO 2006).

The issue of climate change likewise puts the indigenous peoples on the front line because of their ways and age-old tra-

ditional practices of forest management. Indigenous peoples' affinity with the land of which they are the stewards emanates from the idea that life is linked to land because both come from the creator (Kho and Agsaoay-Sano n.d.). Thus, existing indigenous customs and traditions are a relevant and viable alternative to address the issue on sustainable forest management.

Diverse usage of forest resources is not only limited to its commercial use but most especially, it serves as a source of countless benefits to indigenous peoples. A well-managed forest indeed provides a wide array of benefits to both Indigenous and non-indigenous peoples alike. According to a study conducted by the El Niño R&D Technical Working Group (1998), forests provide for economic, social, environmental and cultural needs of people. The same study notes that while some sectors equate the forest to the amount of carbon sequestered, indigenous peoples are aware that aside from wood products, the forest is vital for water supply, forestry, agriculture, biodiversity, oxygen generation, tourism, livelihood, equity and poverty alleviation and reduction or risk of loss of life, among others.

Wood Products

A National Forestry Assessment of the Forest Resources Program of the FAO (2005) revealed that timber and fuel wood are the highest value products derived from the forest in the Philippines with a total of 80.75 per cent and 9.74 per cent values, respectively (Carandang 2005).

The Philippines does not only produce forest products for its own consumption but also profits from exportation. According to the National Statistics Office census of November 2009 raw logs, lumber, plywood, veneer sheets and other forest products amounted to 11 per cent of the total Philippine export. This is aside from the manufactured commodities such as wood manufactures (2.04%) and fixtures and furniture (.33%). The FMB (2007) reports that wood based manufactured articles has 64.57 per cent share of the total forest product exports in 2007 and forest-based furniture totaled to 14.66 per cent.

Food, Water and Livelihood

The forest is home to at least 24 million upland dwelling Filipinos and most of upland dwellers, especially indigenous peoples, rely on the forest for their food and livelihood. The Ifugao of Northern Luzon, Taubuid of Mindoro and the Tagbanwa of Palawan get food from their forest such as coffee, bananas, mangoes, jackfruit, mushroom and wild yams among others especially when there is rice or root crop scarcity (Dacawi 1982; Pennoyer 1981 and Werner 1981 as cited by Lasco et al. 2001). Also, the Tumandok women of Panay get coffee, banana, mushroom and peanuts, edible lizards, wild fowl, and edible snails from their forest then sell these it for additional income. Aside from the forest as a hunting ground for indigenous peoples, the Tumandoks in particular engage in the *pamatong* method of hunting to which women and children may participate, and receive a share of the hunt equal to that of everyone else who participated (Pedroso 2008). According to an assessment done by FAO in 2005, forest goods include as much as 2.55 per cent food products.

In any case, forestlands are the main watersheds of rivers that provide water for various uses (Carandang 2005). According to Lasco (2002), as of 2002, a total of 18-20 million people live in the uplands of many watersheds in the country. He adds that it is estimated that at least 1.5 million hectares of agricultural lands get irrigation water from watersheds. And of course, the country relies on water power as a major source of energy. In the Philippines, the Regional Development Council (RDC) declared Cordillera as the watershed cradle of North Philippines because of the region's role as a catchment area and as the headwater and watershed of major river systems (Agri Business Week 2010).

Forest for Cultural Activities

Land is at the core of the survival and well being of indigenous peoples around the world. It is their spiritual foundation and source, shaping distinct peoples, cultures and identities (Stavenhagen 2008). Apart from economic benefits, many indig-

enous communities also regard the forest as an area for religious and cultural functions. The Tagbanwas of Palawan believe that forests are inhabited by spirits or deities that defend their homes by causing illness to human intruders (Lasco, Visco and Pulhin 2001).

For the Talaandig people, the mountain is the foundation of their customary regulations and knowledge systems. They regard their sacred forests[23] with extreme importance as the forests represent everything that is pure and strong and its continued existence ensures the community's continued existence and survival de Vera and Guina 2008). It is a place of worship (Telendanen), a source of food and medicine, a learning center, a home and shelter. Mt. Kitanglad is the abode of the spirits who are known as Nanlitan (Caretakers) and Namiyansa (Providers of human needs) that have enabled the Talaandig to survive for generations (Malanes 2008).

According to Datu Migketay Victorino Saway, a community elder in the area, Mt. Kitanglad is regarded by the Talaandig people as a sacred area. Thus, the collection of specimens by researchers without the community's approval was seen as an act of transgression to the sacred area, robbing a cultural heritage and violation of a customary regulation (Saway 2005).[24]

On the same note, the Magbukún Aytas commune with nature through the forests within their ancestral lands. Similarly, the forests are regarded sacred a place where prayers and offerings are done (Tebtebba 2008). Likewise, in Sagada, the indigenous peoples perform rituals to remember their dead by and enjoin the of their dead ancestors to attend during rituals that pertain to death, sickness, marriage or other happy occasions. These rituals are often done in the family's designated sacred areas in the forest called the "papatayan" or "a-ayagan" (Allad-iw 2009).

Aside from being areas for worship and a place to commune with the spirits and nature, many indigenous communities also use the forest as burial sites. The Sagada caves are located in the forests where people used to bury their dead. The Mt Pulag (now national park) in Kabayan, Benguet also has more than 200 man-made burial caves, 15 of which contain preserved

human mummies (UNESCO 2006). Recently, the burial sites have been declared by UNESCO as endangered sites.

Carbon Stocks/Storage

According to Lasco et al. (2001), tropical forest lands in the Philippines have a wide range of carbon stocks. However, there is also an acceptance that there is a glaring lack of data on the ability of the forest to store and sequester carbon. Lasco and Pulhin (2003) asserts that the Philippine GHG emission from all sources is almost equal to the carbon sequestered by the Philippine forestry.

Recent studies showed that Philippine natural forests contain 86,201 Mg of carbon per hectare in above ground biomass (Canadell 2002). Logging, on the other hand, has been proven to decrease the carbon storage in the Philippine forestry. Lasco et al. (2002) studied the carbon density of logged-over forest plots with varying ages after logging and found out that right after logging, the carbon density declined by about 50 per cent of the carbon density mature forest. Indeed, forests are a significant source of carbon emissions when logged or when there is land use change but at the same time, they can also be excellent carbon storage or carbon sinks. As aptly put, forest ecosystems could also help reduce greenhouse gas concentrations by absorbing carbon from the atmosphere through the process of photosynthesis (Lasco and Pulhin 2003).

TRADITIONAL MANAGEMENT & ENHANCEMENT OF CARBON STOCKS

The protracted struggle of indigenous peoples for recognition of their rights over their lands and other resources bore fruit when the Indigenous Peoples Rights Act (RA No. 8371) was passed in 1997. This gave the indigenous peoples in the country the right to own and manage their individual and communal ancestral lands through the CADT.

According to FMB/DENR, the state for forests in the Philippines is generally improving given the "more people-oriented" manner of forest management systems that the government is implementing. It is noteworthy however that as mentioned earlier in this report, various studies show that most of the areas where forests are still intact are the same areas where indigenous peoples live. Hence, it is worth reiterating that the practice of sustainable forest management is not a new practice among the indigenous peoples in the Philippines. This is a principle that long been inculcated to them by their ancestors (Molintas 2004).

Traditional Land Use Practices

In most (if not all) indigenous communities, the watershed, forests, river systems and pasture lands are considered communal properties and therefore their use and conservation are the responsibility of the whole community.[25] Indigenous peoples practice traditional systems of resource management that reflect their close relationship with and deep knowledge and understanding of nature. Violators of policies with regards sustainability of these resources are usually fined or penalized using community-set protocols (MRDC n.d.).

In Northern Philippines, the Ifugao practice of *muyong* reflects their way of life. They grow and tend their forests either as a forest conservation strategy, a watershed rehabilitation technique or a farming system (Butic and Ngidlo 2002). *Muyong* is a traditionally inherited property and are privately owned. Ownership is simply defined by inheritance and this mode of ownership transfer is highly recognized by the community. Thus, forest protection is considered to be a community concern and that intrusion in the *muyong* areas is being dealt with severely by the community.

The *muyong*[26] is being used according to different components namely the microforest (*muyong or pinugo*), swidden fields (*habal*), terraced paddies (*payo*), settlement districts (*boble*) and braided riverbeds (*wangwang*). To ensure food security, the Ifugaos do multiple cropping and plant crops and herbs for food, handicrafts and use in community rituals. Aside from its eco-

nomic role, *muyong* defines the use and significance of forest with the recognition of the importance of culture in its development and continued maintenance (Butic and Ngidlo 2003).

With the passage of DENR Administrative Order 123 in 1989, (Institute of Philippine Culture 2001) *muyong* as a socio-political system that regulates the use, access and management of resource has been recognized by the Philippine government in promoting Indigenous Knowledge Systems and Practices. This administrative order clearly "promotes community participation in the rehabilitation, protection, improvement, and management of degraded and productive residual forests, brushlands, virgin forests, and marginal lands" (IPC 2001).

The indigenous peoples of Abra in the northern part of the Philippines observe the *lapat* system in the management of their forest resources. *Lapat* literally means "to prohibit" or "to regulate cutting of trees, hunting wild animals, and other resources from the forest" (Butic and Ngildo 2002). The communities in Abra claim that until now, the *lapat* system has worked for them to be able to manage their resources. The indigenous system which used to work only through social regulation has developed and became a part of the formal judicial system such as in the *barangay* (the smallest unit of government in the Philippines) ordinances.

According to Plantilla (2009), every *barangay* in the municipality of Tubo, Abra, Northern Philippines has identified their *lapat* areas and manages and that this system protects a declared area from encroachment by outsiders. By practicing the *lapat* system, indigenous communities take over the responsibility, care and management of forests and natural resources.

The Masadiit people of the Northern Luzon regard the role of their *lallakay* (elders) in community decisions and resource management crucial and indispensable. The elders lead in the protection of the forest and natural resources as well as in the communal fishing, and in gathering forest products. They believe that the *lallakay* and the young warriors are given the duty by the ancestors to defend the hunting grounds, the rice fields, and the rivers, but most especially the *ili* (village home) (Mendoza, Guiam and Sambeli n.d.).

Meanwhile, another indigenous forest management known as *batangan* or *saguday in* Mt. Province involves the management of a piece of forestland by a clan with a size ranging from 0.5 to 10 ha managed by 1-20 clans.[27] For big clans, membership may include from several generations who have a direct access to the *saguday*. These clan members also share equal rights to the resources found therein.

In the Country Profile on community Forestry (Pulhin n.d.), five objectives govern the management of the *saguday*, namely, health, prosperity (*gabay*), abundance (*sika*), nature, and peace. While the primary purpose of saguday is a source of timber materials, this is also a source of food, medicine, clean water, and cultural values (Magcale-Macandong and Abucay n.d.).

In the *saguday* system, decision-making is the sole responsibility of the council of elders and designated caretakers. The caretakers manage the *saguday* and implement the indigenous rules concerning its use. In exchange, they are free to use the resources and stay in the area. However, the elders can replace the *saguday* if they are deemed as not doing their jobs.

Generally, the use of the forest resource according to the *saguday* approach is based on needs or necessity of the user which is subject to approval of the elders and caretakers. Hence, the use of the forest resource is regulated by customary laws which include the following: 1) poaching is prohibited within the area and the violation has its corresponding penalty; 2) non-community members are not allowed to exploit forest resources without permission and consent from the community leaders; and 3) commercial sale and transport of timber products are banned.

Selective tree cutting, thinning, pruning, under brushing and weeding activities are also done as management and conservation strategies. For instance, if the need is for fuel, only the branches and dead trees are harvested. If the wood will be used for house construction, the caretaker chooses the tree (usually the mature pine trees and the ones that bear fewer cones) to be cut. The number of trees cut also depends on the caretaker's assessment of the wood requirement of the requesting party.

Aside from the *muyong, lapat* and *saguday,* many other socio-political institutions in the indigenous community continue to

prevail. These practices of regulated use, access and excellent resource management are all systematically structured and are based on body of laws that is in harmony with nature.

In the case of the Talaandig in Mindanao, the idea of *Igmale'ng'en*[28] or sacred forests continues to play a central role in the day to day affairs of the community. Due to the sanctity of their forest resource, the Talaandig are well aware of how they interact with their forests as this information is transferred from generation to generation. This is usually done by elders and shamans during the planting season or thanksgiving for good harvest.

> *Resource utilization in the sacred forests of the Talaandig is limited to gathering of materials used for rituals. Some hunting is allowed provided the shaman has been informed and proper offering to spirits are performed. Strict rules are being observed when activities are done in the forest like speaking at a very low volume, refraining from using any foul language and many more" (De Vera and Guina 2008).*

It was also strictly prohibited for people to inhabit the sacred forest. Cases of transgressions committed against the sacred forest are resolved through the intervention of the *datu* or chief of the village. A dialogue is conducted in which ceremonial sacrifices are identified to appease the spirits. Punishment for a proven transgression against the rules is left to the spirits who, according to belief, cast a spell on the offending party. However, also when other persons, such as village children, are afflicted with various illnesses, the problems are mainly attributed to the spirits as a result of the disturbance (De Vera and Guina 2008).

The above illustrations of traditional practices show how indigenous peoples understand the rudiments of sustainable forest management to keep the balance of life without disrespecting the environment. Sustainable resource management may be ensured if local/indigenous communities are empowered to have control over management of their resources.

Innovations in the Enhancement of Carbon Stocks

As the issue on climate change focuses on mitigation and adaptation measures, efforts to look into the capacity of forests to sequester carbon, as in the case of Ikalahans in Nueva Vizcaya cannot be discounted. Through the help of Rewarding Upland Poor for Environmental Services (RUPES) and World Agroforestry Centre (ICRAF), efforts of the Ikalahans to sequester carbon were recognized and possible rewards through market-based mechanisms are being considered (Abayao et al. 2009).

To further enhance the forest capacity's carbon sequestration, the Ikalahans implement the Forest Improvement Technology (FIT) (see below). The Ikalahans believe that the strict implementation of FIT will intensify or expedite forest growth and thus carbon sequestration and water supply. Using the same formula (as the one in CDM project), they estimate that at least 1.7 million tons of CO2 emissions will be possible in 20 years.[29]

The FIT Technology

The Forest Improvement Technology involves the removal of mature trees and their replacement with new seedlings. As the replacements are done yearly, the forests continue to develop. Trees that are removed are those that are crooked, damaged, or crowded trees. Acting as natural fertilizers and[30] biodiversity enhancers, sawdust, tops and branches of trees are left for natural soil cultivation.

FIT also involves planting of large open spaces with forest pioneer species first. And when the forest has its proper amount of wood which is placed at 270 cubic meters per hectare, the Ikalahans begin to remove an amount "equal to the total growth rate of 15 to 20 cubic meters per hectare per year" to allow more seedlings to grow.

Source: (Villamor et al. n.d.).

Many other indigenous peoples in the country may not be as advanced as the Ikalahans in terms of understanding of what carbon is in relation to the forest but excellent forest and other resource management systems of indigenous peoples have undoubtedly contributed to the capacity of the forest to capture and store carbon.

CLIMATE CHANGE POLICIES, INDIGENOUS PEOPLES' RIGHTS & REDD

The Philippines' Responses to Climate Change

As a developing (non-Annex 1) country, the Philippines is not mandated under the UNFCCC to reduce gas emissions. However, the country openly supported the position of the Alliance of Small Island States (AOSIS) that strongly proposed reduction of ghg emissions of the Annex 1 countries. Even before signing the UNFCCC in 1992, the Philippine government created the inter-agency Committee on Climate change. This was mandated to harness and synergize the various activities being undertaken by the national government and civil society in response to crisis posed by growing problem on climate change. It also complied with the inventory of greenhouse gas emission by conducting a ghg inventory both in 1990 and 1994 (Merilo 2001).

In 1997, the Philippines was one among the first countries in the world to have done a National Action Plan on Climate Change (NAPCC). NAPCC was formulated to facilitate activities that would increase awareness of the public on the issue of climate change through several workshops for various sectors especially those faced with most potential risks (AIAACC Project.org). Table 2 shows the various policies and programs of the Philippine government in responding to climate change.

Table 2. The significant milestones of Philippine Responses to Climate Change[31]

Law/ Program/ Policy	Key provisions	Status
1. Inter-agency committee on Climate change (1991)	It was created to coordinate various climate change related activities, propose climate change policies and prepare the Philippine positions to the UNFCCC and other issues relative to climate change (Merillo 2001).	
2. Signing of the UNFCCC in 1992	It committed to the country to the UNFCCC provisions on non Annex 1 parties.	Philippines did a GHG inventory in 1994 that became the basis of the country's Initial national communication on Climate change to the UNFCCC in 1999.
3. Clean Air Act of 1999	It outlines the government's measures to reduce air pollution and incorporate environmental protection into its development plans (World Resource Institute 2003).	Government has had partnerships with different organization such as Partnership for Clean Air (PCA) and Clean Air Initiative for Asian Cities (CAI-Asia) Center to do information and education campaign and workshops on air quality management and sustainable transport.
4. Signing of the Kyoto protocol' in 2003	It sets binding targets for 37 industrialized countries and the European community for reducing greenhouse gas (GHG) emissions. These amount to an average of five per cent against 1990 levels over the five-year period 2008-2012 (UNFCCC).	The government has set up a Designated National Authority for CDM. As of 2005, waste management projects, renewable energy and afforestation and reforestation were on the CDM pipeline for the Philippines.

5. Biofuels Act	It seeks to reduce dependence on imported fuels with due regard to the protection of public health, the environment, and natural ecosystems consistent with the country's sustainable economic growth that would expand opportunities for livelihood by mandating the use of biofuels (RA 9367).	Oil companies have submitted to the mandatory use of biofuels in the Philippines.
6. Renewable Energy Act	It seeks to promote the development of renewable energy resources and its commercialization. It aims to achieve this by providing incentives to institutions that invest in the sector (PinoyBusiness.org 2008).	A National Renewable Energy Board has been created to accelerate the setting up of mechanisms and incentives critical to the implementation of the law.
7. Climate Change Act	Creates a Climate Change Commission that would formulate and implement plans for the country to better prepare for and respond to natural disasters and it also aims to attract foreign financing for adaptation and risk reduction projects (Romero 2009).	Climate change commission is already created.

Source: Leah Abayao, Jo Ann Guillao, Mikara Kaye Jubay and Helen Magata. 2009. *Climate Change and Indigenous Peoples in the Philippines: The Calamian Tagbanua and the Ikalahan views and actions on Climate Change.* (unpublished)

Clean Air Act, Biofuels Act and Renewable Energy Act

The Philippine government has been very progressive in responding to climate change through various participations in global agreements and conventions and by pushing for local policies and programs. The country signed the Kyoto Protocol[32] in 2003 and created a Presidential Task Force on Climate change (PTFCCC) in 2007 (otherwise known as the Administrative order 171). The PTFCCC[33] was to "act with resolve and urgency in addressing the issue of climate change, mitigate its impact and adapt to its effects" (AO 171, Section 1).

The Biofuels Act was signed on January 17, 2007. It aims to reduce the country's dependence on imported fuels with due regard for protection of public health, the environment and natural ecosystems and consistent with the country's sustainable economic growth that would expand opportunities for livelihood (Abayao et al. 2009). The law orders the use of biofuels as not just to develop and utilize indigenous renewable and sustainably-sourced clean energy but also to mitigate toxic and GHG emissions and increase rural employment and income. It also seeks to ensure the availability of alternative and renewable clean energy without any detriment to the natural ecosystem, biodiversity and food reserves of the country. It also calls for a mandatory mixing of one per cent of Biodiesel in PetroDiesel and five per cent of Ethanol in Gasoline for the first four years. It will then be increased to two per cent for Biodiesel and 10 per cent for Ethanol (One Alternative Energy Blog 2007).

As a complement to the Biofuels act, the Philippine Renewable Energy Act was signed by the President in 2008 aiming for less dependence of the country on imported sources of energy for a target of 60 per cent energy self-sufficiency by 2010. It is also geared toward a more aggressive development of solar, biomass, geothermal, hydropower, wind, and ocean energy technologies. As an act to mitigate climate change by reducing gas emissions, the law also encourages maximization of renewable energy sources by promising incentives to investors.[34]

Climate Change Act of 2009

The most recent policy of the government on climate change is the Climate Change Act of 2009, otherwise known as the Republic Act 9729. This is an act that provides for the mainstreaming of climate change into government policy formulation and establishes the framework strategy and program on climate change.

The Philippines adopts sustainable development through Philippine Agenda 21. In its policy declaration, the Climate Change Act expresses its espousal of the principle of protecting the climate system for benefit of the people on the basis of climate justice or common but differentiated responsibilities. Likewise, the Act aims for stabilization of greenhouse gases in the atmosphere. It also assumes the strategic goals in the Hyogo Framework of Action[35] to build national and local resilience to climate change related disasters.

It is the overall direction of the law to systematically integrate the concepts of climate change in various phases of policy formulation, development plans, poverty reduction strategies and other development tools and techniques by all agencies and units of the government.

The law was signed by the Philippine President on October 23, 2009. The act creates a Climate Change Commission mandated to monitor and evaluate programs and action plans relating to climate change. The autonomous commission is attached to the President's office and headed by the President and has the same status as a national government agency.

The various Philippine policies and programs responding to climate change have been heralded by different environmentalists and civil society organizations as serious efforts in the war for a clean and green environment. The Renewable Energy law, for example, has caused quite a stir among environment activists. Even Greenpeace has praised the government for such a law. According to Greenpeace, the Renewable energy law "signals that the Philippines is on track toward achieving an 'Energy Revolution' which can end our dependence on fossil fuels and move the country into a low carbon emissions economy which is a key solution to the problem of dangerous climate change" (Manila Times 2008).

The Potentials of Climate Change Policies

Both the Renewable Energy Act and the Biofuels Law present livelihood opportunities not just to indigenous peoples but to other forest dependent communities as well. The Biofuels Act envisions an increase in rural employment (Sec. 2, RA 9367) and has indeed mandated the Department of Labor and Employment (DOLE) to promote gainful livelihood opportunities.

The President has authorized the Philippine National Oil Company Alternative Fuels Corporation (PNOC-AFC) to lead the biofuels project in the country. In this regard, the PNOC leads the biofuels propagation, production and marketing in the country. In the Philippines, *jatropha curcas*, locally known as *tuba-tuba*, was seen as the most viable feedstock for biodiesel production and it has been found to have the best potential for biodiesel having a yield of up to 40 per cent of oil from its seed (Philippine Information Agency 2008). Based on this estimate, the 2,000-2,500 jatropha plants per hectare could yield up to five tons of seeds or an equivalent of about 3,000 liters. Experts also say that jatropha can start yielding seeds after two years and can continue up to more than 40 years (PIA 2008).

In order to quell questions on food security, the government assures that jatropha as source for biofuel will not threaten food production. According to the biofuel patrons, jatropha can be planted in any soil type, particularly in non-agriculture areas and it is drought and pest resistant. Thus, it presents an opportunity not just for additional income and employment but also on maximizing the use of wastelands. Moreover, jatropha growers have been assured by the PNOC AFC of jatropha market by promising to purchase jatropha seeds in commercial quantity for the production of crude jatropha oil and jatropha methyl ester (PIA 2008).

Meanwhile, the Climate Change Act of 2009, mandates the local government units as front line agencies in implementing the act mentioning the Local Government Code as its basis. In this regard, the municipal and city governments shall consider climate change adaptation as one of their regular functions. In doing so, the local government units (LGUs) are authorized to appropriate funding necessary in implementing their local cli-

mate change action plans following the local government code.[36] The climate change law mentions the creation of an enabling environment that shall promote broader multi-stakeholder participation, and that key development investments shall be based on impact, vulnerability and adaptation assessments (Sec. 9h and Sec 12b). These could provide an opportunity for indigenous peoples to demand for more meaningful participation in all government efforts on climate change.

Food Security, Land Rights, Livelihoods and Culture

Despite the passage of the Climate Change Act, the World Wide Fund for Nature Philippines (WWF) criticized government initiatives on coal fire-power plant (Piplinks 2009). According to a climate change and energy program director, at least eight proposed coal projects in 2008 alone were planned to be set up in Cebu, Iloilo, Saranggani province and other parts of South Mindanao. While this may ease the burden of the country that uses mostly imported (over 10 million tons) coal for power generation, it also defeats the purpose of increasing the use of indigenous and renewable resources in the Philippines.

Notwithstanding government's assurances and encouragement of the viability of the biofuels, critics are skeptical. First, in order meet requirements for needed bioethanol and biodiesel, growers need large tracts of land for crops. Critics argue that even if jatropha can be planted in less fertile areas, the volume needed for the biofuel programs makes it impractical to limit jatropha growing to these less fertile areas (Carlos' Think Pieces 2008). Thus, this could threaten food security and worsen the situation especially of indigenous women and their families. Further, "plantations of jatropha would require high chemical inputs that cause the soil to dry up. This has been evident in the wake of the 2008 global food crisis when there were growing concerns about the impact to food security of converting food crop areas to biofuel plantations" *Amihan*[37] (FAO 2008).

With the price of fossil fuel continuously increasing and the demand decreasing, FMB projects that this will result to expansion of plantations of jatropha and coconut. Further, FMB fears that this will reduce the forest areas in favor of biofuel planta-

tions. The plan of the government for instance to establish about two million ha of jatropha in forestlands and the plan of the forest sector to develop about 600,000 has of coconut plantations (Forest Management Bureau 2009) would mean immense impact to the natural forestry sector, contrary to the proponents' claim that jatropha and coconut plantations would only be established in wastelands.

Still, optimists see the market of biofuels to be expanding into mainstream industry (PIA 2008) and critics say this could again pose a problem for a country with only 30 million hectares of land area (Dona Pazzibugan and TJ Burgonio 2008). Large scale productions would also mean larger tracts of land for plantations. The push for biofuels could lead to land conversion, land-grabbing and most importantly, violation of indigenous peoples rights to their ancestral lands, among others (Carlos' Think Pieces 2008).

In accordance with the law, major gasoline companies in the country have come up with various products blended with bio ethanol and biodiesel. This has also pushed for a more aggressive exploration for feasible areas for plantation. Some experts project that an estimate of 30,000-160,000 hectares of Manobo ancestral domain would be affected by palm oil, jatropha and cassava plantations; at least 280,000 hectares of which are covered by ancestral domains of indigenous peoples.

In October 16, 2008, the KALUMAHIN (Federation of Indigenous People in Far South Mindanao)[38] explicitly stressed their opposition to the mining explorations in their provinces and the plans of the government to establish a biofuel plantation of Jathropa covering 30,000 ha of agricultural lands in Saranggani Province and General Santos City (Kalikasan People's Network for the Environment 2008). According to KALUMAHIN, both the mining and the biofuel plantations could "drive the people again from their lands, destroy their livelihoods and affect their culture and tradition as an indigenous people."

Some Policies Really Do Not Mitigate Climate Change

In addition to threats to land tenure and food security, some also assert that biofuels do not really mitigate climate change. Some scientific researches revealed that "converting rainforests, peatlands, savannas, or grasslands to produce biofuels creates a 'biofuel carbon debt' by releasing 17 to 420 times more carbon dioxide than the fossil fuels they replace" (Joe Fargione) (The Nature Conservancy n.d.). Even some members of the house of representatives in the country are seeking for inquiry on the reliability of biofuels as a means of reducing carbon emissions, quoting scientific findings that show how the advantages of reduced carbon dioxide emissions were "more than offset" by increased nitrous oxide emissions during biofuel production. Thus, the law actually contributes less to climate change mitigation than it does to investors.

Women's loss on biofuels gain

For Erlinda Garcia, 49, and several other village women, the rush to plant oil palm or jatropha means losing the patches of cogon grass that they harvest and sell at Php17.00 per sheaf for roofing and the native freshwater snails which abound in ponds now drained for palm oil plantations. Women used to sell the snails for P5.00 a liter. Without rice farms, Garcia and the other women can't be employed anymore as seasonal weeders, gleaners or harvesters. Without these sources of livelihood, she has to resort to asking for "rejects" at the nearby plant processing banana chips. She recently learned about the technology called odig, meaning "organic, diversified gardening." I can plant squash, string beans and other vegetables using organic fertilizers and pesticides," she said.

Source: (Lina Sagaral-Reyes 2007).

Climate Change Act Does Not Acknowledge the Root of the Problem

On the other hand, critics argue that the Climate Change Act of 2009 does not really acknowledge the main roots of the crisis which the unsustainable and destructive global economy and production. Likewise, it does not mention who are accountable and responsible for the continuous rise in GHG emission (Kalikasan 2010). In addition, Kalikasan argued that in coming up with a climate change law, the Philippine government could have called for deep and drastic cuts of GHG emissions from Annex 1 countries and could have imposed greater tariffs or stricter requirements, including only clean or climate proof foreign business investments in the country.

Weak Indigenous Voice in the Climate Change Act

The Climate Change Act appoints three commissioners, one of whom serves as the vice chairperson to the President. Meanwhile, at least 23 representatives compose the advisory board of the commission of which more than half come from national line agencies and the rest from the league of provinces, cities, municipalities and barangays. Other representations include the academe, the business sector and non-governmental organizations. Notably, while the law has carefully dealt with gender issue by providing at least one seat for a woman commissioner (Sec. 5), by including the National Commission on the Role of Filipino Women (NCRFW) in the advisory board (Sec. 4) and by giving special attention to training needs on women in rural areas in the funding allocation (Sec. 18), it makes no mention on the vulnerabilities, needs or participation of Indigenous peoples and/or communities. Even the National Commission on Indigenous Peoples (NCIP) was not part of the advisory board of the commission. However, women's organizations feel that more attention should be given to women and vulnerable sectors in the community. Aptly put,

> *As revealed from case studies conducted, it is suggested that women have better understanding of the causes and consequences of climate change and have the knowledge and skills to mitigate and adapt to it*

(O'Connor et al. 1998; Röhr 2007) yet, they are consistently underrepresented in policy and decision making around climate change at the local, national, and global levels (Brody et al. 2008; IUCN 2007). This is in contravention to some principles enunciated under the Intergovernmental Panel on Climate Change, which provides that climate policy should carry three roles: to control the atmospheric concentrations of greenhouse gases; to prepare for and reduce adverse impacts of climate change and take advantage of opportunities; and to address development and equity issues (IPCC 2007)" (Peralta 2008).

Among the mandates of the Climate Change Commission are to recommend key development investments in climate-sensitive sectors such as water resources, agriculture, forestry, coastal and marine resources, and health among others. It also should create an enabling environment that promotes broader multi-stakeholder participation in integrated climate change mitigation and adaptation. Thus, provincial governments around the country are tasked to integrate climate change adaptation and mitigation and disaster risk reduction into their policies.

Finally, the Kalikasan (People's Network for the Environment) expresses its legal opinion that while the Philippines is progressive in coming up with laws and policies, the same policies safeguard people are threatening the rights if not the survival of Filipinos. The Biofuels Act, the Energy Privatization Act, the Climate change Act, and even the Mining Act of 1995 all commodify and privatize common natural resources and contribute to the aggravation of climate change impacts that the Filipino people are now enduring (Kalikasan 2009). In addition, Kalikasan claims that these policies have also driven out people from their lands and communities.

The Forest, the Kyoto Protocol and the Clean Air Act

Meanwhile, even if the Kyoto protocol aims for an overall reduction in carbon emissions, critics say that it totally ignores forest conservation or the people practicing it. Article 2 of the Protocol recognizes the role of sustainable forest management, afforestation and reforestation as vehicles in addressing climate change. It also mentions that significant changes in greenhouse

gas emissions have been achieved through certain forestry activities (article 3) and that the states were encouraged to implement programs and policies that mitigate climate change that includes forestry management.

However, according to P. Moutinho, et al. (n.d), although greenhouse gas emissions from fuels are the main causes of global warming, deforestation also contributes a significant 20-25 per cent of annual carbon dioxide emissions (IPCC 2000). However, the Kyoto Protocol has not adopted any mechanism for considering tropical forest conservation or prevention of deforestation as an action for mitigating climate change (Mouthino et al. n.d.). It was only in 2007 when the UNFCCC formally recognized the possibilities of Reducing Emissions from Deforestation and forest degradation (REDD).

According to Lasco et al. (2008), it is important to recognize the role of forest in climate change and in policy formulations. He added that changes in climate are affecting the forests and its ability to deliver its environmental services. In addition, degradation of the forest resources results to emission of carbon dioxide (CO2) in the atmosphere which contributes to climate change. In order to enhance therefore the mitigation role of the forests and at the same time increase their resilience to climate change, sound policies and programs must be put in place (Lasco et al. 2008).

The state passed the Clean Air Act of 1999[39] as an act to promote and protect the global environment to attain sustainable development. As a signatory to the ASEAN Agreement on Transboundary Haze Pollution[40] the Philippines is bound to undertake sound policies to mitigate and control forest fires. The Clean Air act has mandated the DENR to identify and characterize of airsheds[41] in the country and establishment of multisectoral Air Quality Management (AQM) Boards for each airshed. It also pushes for the development of a national air quality management framework, imposition of air quality management charges and establishment of a fund to be used for air quality management activities.

According to Camacho, the Clean Air Act is a policy that supports the forest investment for carbon credits in the Philippines. Section 13 of the law allows orders an emissions charges

system where the DENR and/or DOTC will design, impose on and collect regular emission fees from polluters as part of the emission permitting system or vehicle registration renewal system. This is in adherence to the "polluters must pay" policy. On the other hand, the same law provides that industries which will set up pollution control devices to reduce their air pollution shall be rewarded tax incentives.

The National Framework Strategy on Climate Change

On April 28, 2010, a National Framework Strategy on Climate Change (NFSCC) was by the President. The aim of this strategy is to build a roadmap that will serve as the basis for a national program on climate change that will in turn be translated to all levels of governance in the country. The framework envisions a climate risk-resilient, health, safe, prosperous Philippines with self-reliant communities, and thriving and productive ecosystems. Overall, the framework seeks to develop build the adaptive capacity of communities, increase the resilience of natural ecosystems to climate change and optimize mitigation opportunities[42] towards sustainable development.[43]

With mitigation, among other strategies, the NFSCC seeks to realize the full potential of the country's renewable energy resources. It also sees REDD+ as an opportunity to boost the adaptive capacity against climate change of the forestry sector. However, it does not directly mention anything about indigenous peoples. The framework prioritizes harmonizing enabling policies towards enhancing the forestry sector's ability to reduce GHG emissions from deforestation and forest degradation. It also seeks to establish institutional mechanisms for REDD+ governance that ensures stakeholders participation and equitable sharing between the local governments and the communities. Among its goals is the establishment of a sub-national measurement, reporting and verification system.

In their cross cutting strategy, capacity development is among the top priorities. This include policy formulation, climate change communication, training and public awareness.

Why Should Forest and Indigenous Peoples Issues Be Included?

The function of the forest in climate change related policies should be taken into account because according Lasco (2002), the 1990 GHG inventory revealed that the forest lands in the country are a major contributor to GHG emissions of the Philippines. At the same time, the forestlands capture about 104 million tons of carbon dioxide which is equal to 81 per cent of the total carbon emission of the Philippines (Camacho 2008).

It is likewise of utmost importance that the indigenous peoples are considered in climate change and forest policies. According to the statement to the Permanent Mission of the Republic of the Philippines to the United Nations (2008), "the indigenous peoples in the Philippines play a major role in the protection and preservation of the country's rich and vast biodiverse areas since they live in or near these areas." The Indigenous Peoples Rights Act (IPRA) provides the enabling legal framework for the participation of indigenous peoples in sustainable forest management activities principally community-based forest management and forest protection in their ancestral lands/domain (The Philippines National Report 2003) with the IPRA in place and the adoption of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), the Philippine government has committed itself to uphold, promote and protect the indigenous peoples welfare and rights.

INDIGENOUS PEOPLES IN THE PHILIPPINES AND REDD

Philippines: Observer Country to the UN-REDD Programme

In Asia, several countries are already engaged in capability building and other activities for REDD. The Philippines however, is yet to take an initiative in the REDD implementation in the country. According to the DENR (2003), the Philippines is naturally not a REDD country given its low forest cover of 24

per cent. However, according to Foronda (2008), the Philippines is 8th in the top countries emitting carbon from forest with 49 metric tonnes of carbon per year from 2000-2005 and third among the ASEAN countries.

The Philippine government has been formally invited, along with seven other countries, by the UN-REDD to be an observer country to UN-REDD Programme Policy Board. The UN REDD expressed that observer countries are allowed to participate in global and regional workshops and other benefits such as networking and knowledge sharing, which is facilitated by the UN-REDD Programme's online community (UN REDD Newsletter 2010).

The Non-Timber Forest Product Exchange Programme (NTFP-EP) together with its legal defense group and other civil society organizations as partners, has been facilitating the CoDe REDD[44] through its project entitled "REDD Mapping, Baseline Piloting and Local Stakeholders Consultations for the Philippines and Southeast Asia." CoDe REDD acknowledges the value of critically exploring the potentials of sustainable income streams for forest-based communities through the REDD scheme. It was set up basically to increase understanding and participation of local communities in the possible REDD program in the Philippines and the South East Asia (IUCN 2009). Civil Society organizations and forest based communities agree that local communities and indigenous peoples have a say in the REDD especially as Philippine government implements it in the country to guarantee local benefit sharing, enabling governance structure, and critical success factors in general for the program to be effective and lead to goals of equity, poverty reduction and most of all forest conservation (Guerrero 2009).

CoDe REDD and the NRPS

The CoDe REDD has initiated several local and national consultations on REDD with the aim to strengthen the indigenous peoples' and local communities' voice in the UNFCCC discussions. In relation to this, a National Strategy Formulation for REDD in the Philippines workshop (IUCN 2009)[45] was held on November 26-27, 2009 to discuss the initial broad strokes of a

National REDD Plus Strategy (NRPS) that would help guide effective, efficient and equitable REDD+ implementation in the country (CoDe REDD 2009). The draft NRPS was spearheaded by the DENR-FMB and the CoDe REDD. It presents a broad range of strategies and corresponding activities over a 10-year time horizon (2010-2020). The Climate Change Commission (CCC) was tasked to do the coordination, monitoring and evaluation of government adaptation and mitigation plans, it is thus the primary body through which to NRPS policies would be institutionalized. The President has given approval for the CCC to act as oversight body for the REDD+ implementation with DENR as the operational arm.

Potential Benefits from REDD

As the implementation is not yet fully designed, advocates of a responsibly implemented REDD think that the Philippines can provide a lot in terms of enabling mechanism for the REDD. CoDe REDD sees that the foundation of the democratization of carbon rights and revenues should be based on the framework of recognition of community rights over the land and other resources. CoDe REDD believes that the Philippines has fared better than other Southeast Asian countries in terms of governance and that makes the country more able to ensure permanence of forest carbon stocks required by REDD though sound administration (Guerrero 2009).

In the course of consultations, the CoDe REDD came up with a draft of guiding principles for REDD in the Philippines in 2009. In the draft guidelines, gender and rights were identified as basic and fundamental in the REDD process and that it should uphold the IPRA and respect indigenous systems and practices. Thus, the implementation of REDD should not undermine or adversely affect the forest peoples livelihoods and the biodiversity as a whole. In terms of enforcement, REDD should not only aim at mitigating climate change but also achieve sustainable development and poverty reduction.

In order to realize positive incentives to those who have sustainably managed their forests, the implementation of REDD should consider countries with low deforestation and degrada-

tion such as the Philippines.[46] Similarly, the full, complete and meaningful participation of the forest based communities and indigenous peoples—with equal participation of women in the local and international negotiations, in the financing, benefit sharing, governance and capacity building mechanisms—should be ensured.

Many conservationists and CSOs feel that through REDD, forest habitats and watersheds would be conserved (Guerrero 2009). According to Foronda (2008), the Philippines can conserve up to 7.2 million hectares of forest from a well implemented REDD project. The CoDe REDD trusts that the last frontier forests in the country such as Palawan, Isabela, Cagayan, Aurora and Quezon could gain much not just in monetary terms but more importantly in protecting pollinators that are important for food security and that forest stewards can be compensated for forest conservation activities (Guerrero 2009). REDD can also be an opportunity to reduce CO2 emissions cost effectively and would address some of the roots of deforestation (Foronda 2008). Barnsley (2008) asserts that reduced deforestation could help to protect the biodiversity of plants and animals, help to secure indigenous lands and livelihoods, and provide for the ongoing culture and community of Indigenous peoples.

Similarly, a REDD project that is implemented with indigenous peoples' interest could indirectly help to fulfill a range of Indigenous rights as stipulated in the UNDRIP. Some of these rights include the means of subsistence and development (Art 20), to traditional medicines and health practices, including the maintenance of vital plants, animals and minerals (Art 24.1), to the highest standard of physical and mental health (Art 24.2), to maintain and strengthen the distinctive spiritual relationship with traditional lands (Art 25) and the right to life (Art 7.1). As such, some civil society organizations think that REDD can be an opportunity in fostering indigenous peoples' rights. REDD also presents an opportunity both for poverty alleviation and forest conservation (Barnsley 2008).

As the UN-REDD welcomes the Philippines as an observer entity, it also welcomes inputs and participation of the country. This observer status gives the Philippines an immense opportunity to influence the future structure of REDD implementation

in the country. If the Philippines (specifically the CoDe REDD) envisions a locally-guided implementation of REDD, the observer status makes it very timely for the country to propose inputs to the UN-REDD Programme Policy Board. This is especially crucial as the UN-REDD is open to expand piloting in other countries (aside from its nine pilot countries in the present) depending on the availability of funds.

Potential Challenges on REDD

Coupled with potential benefits are more potential issues and challenges to the REDD mechanism. In the Philippines, a menu of potential risks and threats has been expressed by various organizations in relation to REDD. Some of these are enumerated below.

Unstable Government Policies

According to the FMB (2009), the Philippines has unstable forest policies due to the failure of the congress to pass the Sustainable Forest Management Act (SFMA).[47] In relation to this, the FMB asserts that forest policies keep on changing and the stakeholders are often not aware of what the current forestry policies are. Many times, policies are crafted and almost immediately are recalled or amended but with limited consultation with concerned stakeholders.

Some civil society organizations recommend that the government should learn to address apparent lack of coordination between government agencies such as the DENR and NCIP. Likewise, it was pointed out that the REDD in the Philippines should clarify its implications on the Mining Act and IPRA. Notably, the potential areas for REDD piloting in the Philippines are areas with mining explorations and where indigenous peoples live. Table 3 outlines the obvious overlap of the potential REDD areas on indigenous peoples ancestral domains and on mining areas due for explorations and commercial operations.

In the case of REDD, the FMB admitted that REDD program, if it were pushed in the Philippines, it would be a "country-wide" program. Hence, the government would have a clear-

Table 3. Potential threats to REDD pilot areas and indigenous peoples affected

Potential REDD Areas[48]	Threats	Indigenous Peoples who Could be Affected
Ilong-Ilong/Diwata (Surigao del Sur)	Five explorations, two reinstatement and two commercial operation	Mandaya, Manobo, Mamanwa, Mandaya
Kimangkil (Bukidnon/ Misamis Oriental)	There two granted mining exploration permits and two other commercial mining operations permit granted by the MGB	Higaonon, Kamiguin
Mantalingah-an, (Palawan)	At least 11 identified mining exploration areas in Palawan (MGB)	Agutaynen, Batak, Cagayanen, Cuyonon, and Tagbanua among others
Makilala ancestral domain in North Cotabato	Four mining explorations listed in the MGB	Manobo, Bagobo, Matigsalog, Blaan, among others
Mt. Labo in Camarines Norte	Two mining exploration permits are listed in the MGB	Dumagat, Kabihug
Silago in Southern Leyte)	Four mining explorations in the whole province	Badjao, Monob, Mamanwa
Zambaleses Mountains	At least five mining corporations were ordered for closure in the province. These are: A3 UNA, San Juanico, Maxwell, KNG and Taiwanese firm, Arcman International (Five 2007).	Ayta, Kankanaey, Kalinga

Mt. Kitanglad	High value crop plantations, kaingin, small-scale logging and establishment of buildings and roads for telecommunications and military camps (Birdlife International 2009).	Manobos, Talaandig, Higaonon, Matigsalug and Umayamnon (The Mindanao Current 2009)
Southern Sierra Madre	Rampant illegal logging	Dumagats,Agta, Bugkalot, Gaddang, among others
Sablayan in Occidental Mindoro	The DENR allowed Pitkin Ltd to conduct oil exploration in portions of the towns of Sablayan, Calintaan, Rizal, San Jose and Magsaysay in Occidental Mindoro and in Bulalacao in Oriental Mindoro. Agusan Petroleum meanwhile has exploration permit in Abra de Ilog in Occidental Mindoro and in the resort town of Puerto Galera and nearby San Teodoro in Oriental Mindoro (*The Mindoro Post* 2009). These are in addition to one (1) Financial Technical Assistance agreement already on the way (MGB)	Alangan, Bangon, Buhid, Hanunuo, Iraya, Ratagnon, Tau Buid
Kalahan Ancestral domain in Nueva Vizcaya	Encroachment by outside interests	Ikalahan

Source: *This data was culled from the various sources. The Potential REDD areas came from CoDE REDD, most of the data on mining came from the Mining and Geosciences Bureau and the list of indigenous peoples came from NCIP (2010).

cut strategy for implementation that will safeguard the rights of the people. The foremost priority would also have to be "to have the incentives sloughed back to them (the people)" (Romero 2009).

Aside from the much debated policies, the DENR is one of the departments of the government with the lowest budgets. This is according to the department's undersecretary. Similarly, the FMB reports that several issues in the Philippine forestry are likewise potential issues not just on REDD but on addressing climate change as a whole (Code REDD 2009).

Increasing Local Control Over Their Forest vs. State Control and Greater FPIC Demand

During the South East Asia Indigenous Peoples Regional Consultation on REDD in 2008, the participants came up with elements of an indigenous strategy on REDD for South East Asia. Indigenous peoples agreed that FPIC should be the minimum standard for indigenous peoples to participate in any REDD activity. In addition, the meeting deemed that REDD is going to fail where there is no culture of free, prior and informed consent of indigenous peoples and when they have no space to participate in political processes (UN-REDD.org 2008).

According to the NCIP,[49] FPIC is the foremost requirement before any project may be introduced in any area covered by ancestral domain. It also stipulates that the indigenous peoples and/or community have the right to stop or suspend the project that has not satisfactorily undergone the consultation process attendant to securing free, prior and informed consent. However, FPIC has a rather flawed reputation in the country due to some complaints from different communities claiming either misrepresentations by community representatives who sign the FPIC paper or fraudulent FPIC process.[50]

The greater demand for a well processed FPIC is also related to the increase in allocation of forests and forestlands to upland communities in recognition of indigenous peoples' ancestral domain. According to Pulhin et al. (2001) the total area of forests and forest lands under the "control" and responsibility

of communities (because of their long-term tenure) is 3.8 times larger than that given to the private sector under various instruments. This has happened during the 1990 only and this is a total reversal of the situation in the 1960s and 1970s (Guiang, Borlagdan and Pulhin 2001). If the government were to implement REDD in the country, the clamor for a full and meaningful participation of indigenous peoples will be greater due to the stakes raised by land tenure given to indigenous communities.

Transparency Mechanisms and Greater Stakeholders Participation

Under the REDD mechanism, payments are likely to be made for emissions reduction achieved by reducing deforestation or forest degradation rates against a baseline scenario. The baseline would show what could happen without the REDD implementation. In addition, a country should establish a reference deforestation rate based on historical deforestation trends. These data should be verifiable and measurable. The GHG inventory of the Philippines both in 1990 and 1994 revealed how much emissions came from main sectors for the Philippine economy such as the energy, the agriculture and forestry, among others. However, Merilo (2001) asserts that while the Philippines is exerting its efforts towards a sustainable development, there is still a need to enhance information and data management for essential management of access and flow of information. Likewise, the Philippines badly needs finances for needed technologies and technology transfers such as those in line with REDD.

Another very contentious issue in relation to REDD is the mechanisms for incentives or benefit. Aside from clarifying the legal implications of REDD on NIPAS, the Mining Act and IPRA, the government should also clarify the implication of the REDD on indigenous peoples themselves. This is because according to Cruz (2009), if REDD were implemented in the country, the threats to land tenure, forest allocation inconsistencies and ambiguities in land rights are likely. Likewise, as the last forests in the country are already being protected by no one else but indigenous communities (Corpuz 2009 in Romero 2009), mecha-

nisms for incentives and rewards should be clearly established by the state.

REDD as a mechanism looks closely into how reduced deforestation contributes to reduced gas emissions. Clearly, the livelihood of forest-dependent communities is implicated. How the implementations of such mechanisms will impact on their lives must be clarified as well. Also, the assurance must be given that the right of the indigenous peoples to till their land to answer food security will remain.

WAYS FORWARD

As the Philippines is being frequented by more disastrous climate change related events, the government is racing to enhance the adaptive capabilities of the people and communities. At the same time, mitigation options are being eyed to be maximized under the context of adaptation. According to the National Framework Strategy on Climate Change (NFSCC), this is the only way to address both development and climate change problems in the country.

However, given the scenario of the Philippine policy environment above, the clear gap in coordination, communication and implementation between agencies related to REDD should be addressed. Environment related agencies and other offices like the NCIP should be involved. The process of coordination should ensure wider multi-stakeholder consultation that prioritizes the most vulnerable sectors such as women, urban poor and indigenous peoples.

The birth of the NFSCC should be an opportunity for civil society, indigenous peoples' organizations and the local government to be actively involved in localizing strategies and priorities. And as the forestry sector reveals several gaps in governance, extension services, research and development and capacity building (NFSCC 2010-2022) the NFSCC should address these gaps.

And while there are still gaps in policies in the Philippines, the NRPS must be based on community's needs and priorities.

Local communities and indigenous peoples should not become another object of tokenism efforts. The NRPS must likewise include a clear mechanism on REDD benefit/incentive. Alternatively, a payment mechanism should be established as stronger social and environmental standards are promoted. It must recognize existing forest management systems and include customary laws in the local or sub national arm of implementation. In this manner, a mechanism for greater participation of indigenous peoples and other marginalized sectors can be ensured. This can be done through the inclusion of the NCIP and indigenous organizations or more civil society organizations in the board of the climate change commission. In the same manner, instead of just multi-stakeholder consultations and dialogues, the free, prior and informed consent which is central in the IPRA law should be made the basis for social safeguards in REDD implementation.

An implementation of a REDD+ process in the country should be an opportunity for the concerned government agencies to harmonize whatever fragmented data they have on forest cover, forest land use, drivers of deforestation and truly respond to these. As REDD+ entails a rather rigid standard on baselines and MRV, the Philippines can take this opportunity to review and ameliorate forestry strategies in the Philippines.

Lastly, the obvious inconsistencies in the state policies on forestry, extractive industries and climate change should be addressed. The Protected Areas Act , Mining Act, Biofuels Law and the Climate Change Act are only few among the laws in the country that seem to contradict each other. Harmonized laws and enabling policies could lead to the achievement of the national goal of sustainable development and increased adaptive capacity of communities to climate change.

On the other hand, indigenous peoples are compelled to do something in order to cope with the much fast-paced REDD processes in both the local and international milieu. And as Tebtebba has been doing great efforts to convene indigenous peoples in and outside the country to be more proactive in the REDD process, these efforts should be pushed further and be adopted by other indigenous peoples networks as well.

In the National Orientation on Climate Change, REDD+ and Indigenous Peoples held in Baguio City in May 2010, indigenous representatives identified the urgent need for an information dissemination on what REDD is in the community level where stakeholders are located. There is also a need to popularize and disseminate the UNDRIP/Human Rights-Based Approach (HRBA) in addressing climate change and in engaging REDD. While the government is trying to put up databank on forest and forest resources, indigenous peoples should also establish baseline data to validate any inconsistencies that may emerge in government information.

Under capacity building, there is also a need for a trainors' training on REDD; to broaden the network of indigenous peoples so as to be able to sustain initiatives and possibly allow for the development of an Indigenous Peoples Network on Climate Change. In line with this, all climate change-related activities of indigenous peoples should be done simultaneous with national engagements. Indigenous peoples' organizations should link with the academe, NGOs and other civil society organizations for empowerment activities through technical/financial assistance and other forms and partnerships, as well as research and technical training/capacity building.

While the current legal definition of forest in the Philippines does not at all include biodiversity, actual occupants, forest managers and services the forest provides, indigenous peoples are challenged to push forward their understanding of what the forest is and influence future negotiations in coming up with a "new and sensitive" definition of "forest." There is also a need for collaboration, triangulation and interdisciplinary approaches to forestry that includes and recognizes the science in the Indigenous Knowledge Systems and Practices.

All in all, indigenous peoples should be actively participating in all levels of negotiations, planning, monitoring and evaluation activities at the local and international level.

Endnotes

[1] Dr. Raymundo Rovillos served as the adviser/consultant for the research. He is an Associate Professor of History and currently the Dean of the College of Social Sciences in the University of the Philippines Baguio.

[2] The TLA system is under the 1987 Constitution that says that: the State may directly undertake such activities, or it may enter into co-production, joint venture or production sharing agreements with Filipino citizens or corporations or associations at least sixty percent of whose capital is owned by such citizens. Such agreements maybe for a period not exceeding 25 years, renewable for not more than 25 years, and under such terms and conditions as maybe provided by law." (Available: file:///E:/Downloads/Philippines%20Seve1.pdf).

[3] This was set up supposedly to control cutting of trees by identifying which trees are ready for harvest and those that should not be cut The Philippines Selective Logging System is a polycyclic system, under which extensive natural management is applied to residual dipterocarp forest. The system specifies that trees with a diameter at breast height (dbh) greater than 60 cm be harvested, while 20-25 undamaged trees per hectare with dbh in the range 36-60 centimeters remain to provide the next crop. (Available: http://www.fao.org/forestry/23831/en/phl/).

[4] This law mandates a minimum one per cent biodiesel blend into all diesel engine fuels, which increases to two per cent after two years and a minimum five per cent bioethanol blend into all gasoline fuel distributed and sold in the country within two years, going up to 10 per cent after four years (Philippine DOE).

[5] A list of biofuel initiatives in the Philippines can be found in the Annex. This list includes the companies investing, the areas covered in the project and the status of the biofuel initiatives.

[6] This has mandated the government to assume a multiple-use approach to forest lands, speed up land classification, delineate forest boundaries, encouraged wood processing plantations, conduct a census and recognize forest occupants.

[7] MPFD is a 25-year plan for the development of the forestry sector (DENR 1990). The plan was an effort of the government to respond to the massive deforestation in the country but at the same time being blamed to have increased open access as a result of cancellation, suspension and non-renewal of TLAs (FAO, 2001).

[8] See *Executive Order 192. Available* from: http://www.psdn.org.ph/chmbio/eo192.html. Accessed January 21, 2010.

[9] PD 464, Chapter 1, Section 3,k defines improvements as: a valuable addition made to property or an amelioration in its condition, amount-

ing to more than more repairs or replacement of waste, costing labor or capital, and intended to enhance its value, beauty or utility or to adapt it for new or further purposes.

[10] The massive issuance of timber license which started even during the time of American occupation (American's demand for timber exportation was the primary motivation to promulgate forest policies) resulted to the growth of the logging business in the 1950s until the 70s.

[11] In 1991, the DENR issued an administrative order banning timber harvest in all old-growth forests of the Philippines. Similarly, the annual allowable cut was reduced sharply from five million cubic meter in 1990 to about 0.5 cubic meter in 2001.

[12] Socialized Industrial Forest Management Program (SIFMA) is a privilege granted for the development and management of up to 500 ha of forestlands into plantations. This policy aims to promote rehabilitation and restoration of forest lands and establishment of plantations for wood supply. The program allows individuals/families and associations/cooperatives to participate in forest plantation development from forest areas ranging from 1-10 ha and from 10-500 ha by providing them security of tenure through the issuance of a Socialized Industrial Forest Management Agreement (SIFMA). It is regarded as "peasant forestry" and "functional group forestry" on forest lands for the purpose of wood production, probably through "individual participation," "fixed group participation," "wage labor participation." Meanwhile, IFMA areas cover brush land and/or open and denuded forest lands, it may also cover patches of residual natural forests.

[13] FLGA formerly PLA/FLGLA, is a production sharing agreement on the development, management and utilization of grazing lands. The issuance of FLGA started on November 11 1982 when Ministry Administrative Order (MOA) no. 50 series of 1982 was issued which was later on revised by DENR AO No.99-36.

[14] "*Hindi na baka ang inalaagaan nila sa rancho kundi mga tubo, pinya at jatropha. Ang pinyahan umaabot sa 100 ektarya at 10 ektarya para sa cassava at tuba-tuba (jatropha).* (This grazing land is now planted to pineapple, sugar cane and jatropha. The pineapple plantation is estimated to be 100 ha while 10 ha were planted with cassava and jatropha) - Bae Merlina Dumotan, Talaandig woman. Case derived from Randy Nobleza. Bukidnon farmers seek voiding of ranchers' grazing lease pacts. (Malaya, [News], August 9, 2008, http://www.malaya.com.ph/Aug09/metro1.htm. Accessed February 24, 2010.

[15] PAMB is a multi-sectoral body chaired by the DENR with representation from the local government units, NGOs or civic organizations, peoples organizations and indigenous peoples. The Protected Area Superintendent Office (PASU) serves as the secretariat to the PAMB and

responsible for the implementation of approved plans, policies and projects by the PAMB.

[16] Discussed during the Philippine Workshop on Securing Indigenous Peoples Rights in Protected Areas on April 14–15, 2009 at Bataan Technology Park, Inc. Sabang, Morong, Bataan.

[17] This was discussed by Datu Migketay Victorino L. Saway during the Philippine Workshop on Securing Indigenous Peoples Rights in Protected Areas on April 14–15, 2009 at Bataan Technology Park, Inc. Sabang, Morong, Bataan.

[18] Derived from the Philippine National REDD Plus Strategy.

[19] Senate Bill No. 80 as introduced by Senator Loren Legarda. *An Act Providing for Sustainable Forest Management.*

[20] The type of decentralization that can indeed bring the locus of power and decision-making from the State to local communities is devolution. Devolution, otherwise known as political decentralization, is defined as the transfer of power and authority from central government institutions to "local political authorities" (Contreras, 2007).

[21] The KEF was founded to establish legal entity of the Ikalahans for their ancestral land claims. The Board of Trustees (BOT) of the KEF is the main governing body of the Kalahan reserve through which people from different barangays and Tongtongan are involved in decision making in KEF. The BOT is composed of elected officials, local informal leaders and community elders, thus representing a very broad array of stakeholders in the community. This mechanism is very proactive and the community's mutual trust and unity to protect their resources are working well for the promotion of environmental protection.

[22] The Philippine National REDD Plus Strategy (NRPS) was prepared by the Philippines REDD Plus Strategy Team spearheaded by the Department of Environment and Natural Resources-Forest Management Bureau and CoDe REDD Plus Philippines. The NRPS is being finalized in consultation with other stakeholders.

[23] One such forest is Mt. Kalatungan where the tallest and hardest trees grow, the cleanest waters flow, where the waters never runs dry and where the deer and wild boar will always roam and, most importantly, where the "Kalumbata" or the Philippine flying eagle will always fly free (de Vera and Guina 2008).

[24] In 1995, Talaandig cultural guards confiscated 15 bags of plant specimens from researchers of the Philippine National Museum (PNM) whom they claimed to have conducted research in their forest area without free, prior and informed consent.

[25] Various indigenous communities continue to maintain socio-political institutions and community practices that are claimed to be helpful in forest management and land use practices.

[26] According to Butic and Ngidlo (2003): The muyong system of the Ifugaos has been proven to be an effective Assisted Natural Regeneration (ANR) strategy for the forest. To enhance biodiversity, farmers also practice enrichment planting with fast growing reforestation species and other fruit-bearing trees. The cultivation of forest trees of the Ifugaos is done successfully through constant interaction with their forests. Some of their indigenous systems in silviculture include thinning, cleaning, pruning and salvage cutting of trees. These are all done to enhance the growth and development of natural forests. Likewise, it is a common practice that timber extraction is highly selective. Otherwise, they do whole tree harvesting where they harvest the roots, the trunks, branches and twigs. The roots and buttresses will be used as vertical support columns for houses, the branches cut for general uses and the smaller twigs are brought home for fuel wood or fences and the leaves are left to decompose in the forest.

[27] This is a Country Profile on Community Forestry Submitted to the Regional Community Forestry Training Center for Asia and the Pacific (RECOFTC) prepared by Juan M. Pulhin. Available from http://www.recoftc.org. Accessed February 23, 2010.

[28] Talaandig term for sacred forest.

[29] In 2005, the RUPES Kalahan team prepared the CDM Project Design Document for the Kyoto market to access international carbon markets. The Kalahan forestry team, with technical assistance from ICRAF, also prepared the "Forestry Project Idea Note (PIN) on Sequestration Project in the Ancestral Domain of Ikalahan." The PIN proposed a carbon sequestration project on the 900 ha remaining abandoned agricultural and marginal grassland portion of the domain (Villamor et al.).

[30] C.f. *CDM Registration sought for Ikalahan Indigenous Group's reforestation project*. Available from: http://www.worldagroforestrycentre.org/af2/MediaRelease?q=node/141. Accessed February 16, 2010.

[31] Data contained in table has been summarized from the source.

[32] The signing of the Protocol commits the Philippines to pass and implement national measures that shall advance the international community's agenda pertaining to environmental preservation through the reduction of greenhouse emissions (GHGs) in the atmosphere.

[33] The task force was later reorganized in 2008 where the President serves as the Chair. The reorganization of the task force led to creation of other task forces among government national agencies such as task group on solid waste management, on watershed protection, renewable energy and traditional medicine among others. The task group on watershed protection is mandated to delineate mapping for protected

areas as a preliminary activity to massive restoration and regeneration of forestland and protected areas (AO 171).

[34] A National Renewable Energy Board (NREB) was set up to evaluate and set the mandated Renewable Energy Portfolio Standards, recommend and facilitate, monitor and evaluate the implementation of the National Renewable Energy Program. Research, development, market, promotion and other activities necessary for the attainment of the law is encouraged through a financial fund that was set up by the government.

[35] This is the key outcome of the World Conference on Disaster reduction done in Japan in 2005. The conference was to take stock of progress in disaster risk reduction accomplished since the Yokohama Conference of 1994 and to make plans for the next 10 years (Wikipedia). It emphasizes the need to monitor and review progress in disaster risk reduction not only to document the good implementation of the Framework but to feed into informed disaster risk reduction planning and programming at national, sub-national and regional levels. It also provided a unique opportunity to promote a strategic and systematic approach to reducing vulnerabilities and risks to hazards. It underscored the need for, and identified ways of, building the resilience of nations and communities to disasters (www.unisdr.org).

[36] In the local government code, (RA 7160), the law provides for the devolution of powers, authority, resources and responsibilities of the government. This gives more freedom for local governments to plan, decide and implement policies that are relevant to their specific areas. This also creates enabling mechanisms for contiguous areas of local government units to merge and collaborate on certain projects and/or activities.

[37] Founded in 1986, Amihan has the overall goal of empowering peasant women through organization and collectively advocating for alternative policies and strategies that respond to their particular situation as peasants and women. With some 8.5 million out of 11.2 million rural workers landless, the organization's key demands include a genuine agrarian reform program that addresses land rights for women and the protection of peasant women's economic and political rights. Since the 1990s, the organization has been conducting research and advocacy on issues around trade liberalization, particularly the World Trade Organization's Agreement on Agriculture and its implications for food sovereignty and impacts on women farmers. Recently the organization has begun to examine the issue of climate change. (Lindio-McGovern 1998; Reyes-Cantos and Bernabe 2006 in Spieldoch 2007; Amihan 2008, interview).

[38] This Lumad Alliance of indigenous peoples of Region XXII in the Southern Philippines was formed express their unity against what they call "anti-indigenous peoples" policy of the Philippine government.

[39] The Act aims to encourage cooperation and self regulation among citizens through application of market based mechanisms; to focus on pollution prevention rather than control; to enforce participation on public air planning and monitoring and to establish a system of accountability for environmental programs and activities. The law was intended to address the worsening problem of air pollution in the country and to prepare and fully implement a national plan consistent with the UNFCCC and other international agreements, conventions and protocols on the reduction of GHG emissions in the country.

[40] The ASEAN Haze Agreement is intended to undertake individual and joint action to assess the origin, cases, nature and extent, prevent and control, applying environmentally sound policies, practices and technologies and to strengthen national and regional capabilities and cooperation in assessment, prevention, mitigation and management of land and/or forest fires and the resulting haze (The Philippines National Report to the Third Session of the United Nations Forum on Forests 2003).

[41] An airshed can be compared to a watershed. When we talk of a watershed, we mean a geographic area where rivers, streams and runoff flow into a specific body of water. By comparison, an airshed is a geographic area where air pollutants from sources "upstream" or within the area flow and are present in the air. (http://www.pscleanair.org/airq/basics/weather/airshed.aspx).

[42] The NFSCC includes a framework that presents the impacts of climate change and the country's vulnerability. It also presents how the vulnerabilities shall be addressed by adaptation, mitigation and other strategies of implementation which includes multi-stakeholder partnership, financing, valuation, policy planning and mainstreaming. It is noteworthy that in the framework, mitigation and adaptation were both regarded as development concerns. Thus, the framework pushes for mitigation strategies to be undertaken as under the context of adaptation. It adds that this process will ensure sustainable development of the country.

[43] See the National Framework Strategy on Climate Change, 2010-2022.

[44] Community Development through REDD, Community Developing REDD, Conservation and Development through REDD. CoDe REDD Philippines was initially formed to undertake stakeholder consultations as build up activities towards the COP 15 in Copenhagen in December 2009 and to operationalize the decisions made in Copenhagen in concrete projects or continued experimentation or piloting.

[45] According to CoDe REDD, the workshop brought together 43 representatives from various bureaus of the DENR, National Commis-

sion of Indigenous Peoples (NCIP), and other government agencies, scientists, academicians, NGOs, and community-based organizations.

[46] Although the Philippines has not been established as LFLD (low forest cover, low degradation rate) country. According to the NTFP EP, ICRAF (World Agroforestry Centre) is saying that the Philippine forest is LFLD (Low forest cover, low deforestation rate) while the Government of Norway in its Options Assessment report in March 2009, has defined the Philippines LFHD or low forest cover, high in deforestation).

[47] SFMA could have provided defined major policies such as logging ban, devolution of management of some forestlands to stakeholders, delineation and limits of the public forest areas and policies on forest industries among others (FMB 2009).

[48] These areas were identified by civil society organizations in a National REDD Consultation that was organized in 2009 by the CoDe REDD. These areas were identified during the consultation based on the following criteria: forest cover, threats of deforestation and degradation, tenure, biodiversity, LGU support, community forest management system in place, organizational capacity, peace and order situation and protected area. (Highlights of the National Consultation on REDD 2009).

[49] NCIP has the mandate to coordinate development programs and projects for the advancement of indigenous peoples and to oversee the proper implementation of these.

[50] See: Cordillera Peoples Alliance Urgent Action. Australian Mining Company Royalco Violates Indigenous Community's Collective Right to Free, Prior and Informed Consent. Available from: http://www.piplinks.org/consent. Accessed February 19, 2010.

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5

EMPHASIZING INDIGENOUS PEOPLES' PERSPECTIVES IN REDD+ PROGRAMS IN PERU

By
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BRIEF VIEW ON CLIMATE CHANGE NEGOTIATIONS IN INTERNATIONAL CONTEXT

Climate change is a result of industrial development and world consumption of energy that increasingly demands burning of oil, gas and carbon which is responsible for GHG (greenhouse gas) emissions of carbon dioxide (CO2), methane, among others. This reality is ironic for Peru and the rest of the Latin American countries because they contribute a total of 2.5 per cent of GHG emissions but they suffer the impacts of climate change.

Historical data shows that industrialized countries have bigger responsibilities for CO2 production compared to developing countries. Since the 20th century, two regions have been the biggest producers of CO2—these are the United States of America and European countries belonging to the Organization for Economic Cooperation and Development (OECD). These regions have emitted most of the 60 per cent of world emissions.

China, India and Russia are the other countries that have been increasing their emissions of GHG due to their recent industrial and economic development. The other countries in the world called "other economies" represent only 16.5 per cent of the total world emissions.

In 1995, the UNFCCC (UN Framework Convention on Climate Change) was established as a space where the states can discuss efforts and determine actions to address climate change. The Conference of Parties (COP) is the supreme body of the Convention; it is the highest decision-making authority. One of the most important COP was COP 3 in 1997 where the Kyoto Protocol (KP) was approved. Through this binding instrument, the parties expressed commitment to reduce between 2008 and 2012 their GHG emissions with an average of 5.2 per cent of the

corresponding emissions in 1990. To achieve this goal, financial mechanisms were created such as the Clean Development Mechanisms (CDM), Joint Implementation (JI) and Emissions Trading (ET). This agreement allows developed countries to reduce their GHG emissions by executing projects in developing countries but not changing their industrial and energy matrix.

In COP 11, eight years after the approval of KP, the discussions for its implementation began. Questions about the new mechanism were also discussed. In COP 13, forest conservation was emphasized because of the high GHG absorption capacity of forests.

UNFCCC recognizes that some of the climate change effects may consist of altered lengths of crops seasons, reduced water availability, extreme values of temperature, floods, droughts, fires, and increased plagues. Indigenous peoples will be affected by climate change as foreseen by the Intergovernmental Panel on Climate Change (IPCC)[1] due to loss of biodiversity for their food and survival, alteration in their cultural life because of change in seasons and species movement, disturbed traditional practices of hunting, fishing and stockbreeding, and increased mortality due to infectious diseases resulting from rise in temperatures.[2]

It is worth mentioning that most forests worldwide are found in indigenous peoples lands. According to Food and Agriculture Organization (FAO) (2008), close to 1,600 million people depend on forests including 60 million indigenous peoples who depend completely on forests for their food support, medicines and/or building materials.

But climate change is not the only matter that affects indigenous peoples. Although Amazonian rainforests absorb 15 per cent of CO2, they are constantly threatened by legal and illegal logging, dams and roads construction, expansion of cities, expansion of agriculture and cattle raising, migrations, and extractive industries.

In this context, negotiations of REDD became one of the most important issues in COP 15, in Copenhagen. Some arguments, however, were controversial for indigenous peoples. Main arguments are in Table 1:

Table 1. Indigenous peoples' concerns on REDD by topic

Topic	
Climate change	Measures of carbon capture are inexact. It is not the real solution.
Territories and resources	There is no regulation system to ensure and protect indigenous peoples' rights of their lands and territories, free transit in the forests, border forests and expansion of the legal boundaries of the indigenous communities. Historic experiences are the main reason for their concerns.
Culture	Amazonian indigenous peoples live in forest, which is the main part of their cultural and spiritual values; it is not completely for commerce.
Gender	The role of woman in agriculture and forestry, collection and other activities could be affected as long as exclusive concession for REDD or preservation criteria could be strengthened.
Moral	Polluting industries and countries should not pay to continue polluting and deteriorating the environment.

CLIMATE CHANGE, FOREST AND INDIGENOUS PEOPLES IN THE NATIONAL CONTEXT

According to Tyndall Center, Peru is the third country that will suffer from climate change impacts due to extreme climate events, ranging from severe droughts to landslides and rushing rivers. Table 2 identifies the main impacts of climate change in Peru related to Andean and Amazonian regions.

Although impacts such as those indicated in the table above were identified, there is no systematic mechanism until now to monitor, quantify and value them. Systematic monitoring is very important because climate change impacts on indigenous peoples are not only economic; climate change affects their right to live in their territories because of migrations, disease or flood. Climate change also affects their livelihood. Because of reduced water sources, they get only limited number of fish in rivers or lakes. They also find difficulties to seed, harvest, hunt or collect fruits due to irregular conditions.

Table 2. Impacts of climate change in Andean and Amazonian regions

Impact	Effects	Areas
Water sources	Reduced fresh water sources. Incidence of bowel diseases, specially in vulnerable groups (pregnant women and children under 2 years)	Andean region
Fishing	Reduced egg-laying areas for fishes due to decreased body of water. Decreased traditional fishing.	Amazonian region
Flood	Higher raining intensity would lead to flood and overflowing.	Andean and Amazonian regions
Ecosystems and species	Biodiversity loss reduced subsistence resources for food, health and income generation. Limitation of ancient activities development such as hunting (men) and collection (women and children).	Andean and Amazonian regions
Agriculture	Instability of seeding and harvesting campaign jeopardizes the food production	Andean and Amazonian regions
Plagues	Increased temperature results in loss of harvest due to plagues. Reduced subsistence and exchange products	Andean and Amazonian regions
Diseases	Proliferation of infectious diseases (uta, dengue fever, malaria) and increase in mortality rate, especially vulnerable groups (pregnant women and children under 2 years old).	Andean and Amazonian regions
Migrations	Lost culture and ancient knowledge of men and women to coexist with nature	Andean and Amazonian regions

The following paragraphs present some characteristics of Amazonian communities in order to portray the impacts of climate change on these communities. The Census of 2007[3] indicates that there are at least 332, 975 Amazonian indigenous people who live in 1,788 communities. These individuals belong to 51 Amazonian indigenous groups. Although they represent only 1.18 per cent of the national population, they reside in 11 out of 25 political regions. Regions with the largest number of indigenous communities are Loreto, Ucayali, Amazonas and Junin (See Table 3).

Table 3. Population, communities and Amazonian peoples by political region

Political region	Indigenous Population	Amazonian communities	Amazonian peoples
Loreto	105,900	705	28
Junín	73,637	238	4
Amazonas	52,153	254	2
Ucayali	40,407	257	15
San Martin	21,416	90	3
Pasco	16,414	113	2
Cusco	15,230	70	5
Madre de Dios	4,005	30	14
Others	3,813	31	6
Total	332,975	1,788	----

Source: NISI, Final results of indigenous communities, 2007.

The life of Amazonian indigenous people depends on the forest. Its biodiversity still keep them healthy. It is reflected in the Census that 33 per cent of the indigenous population seek folk healers, 36.6 per cent heal themselves and 69.5 per cent continues to use medicinal plants together with western medicines. They combine healing methods.[4]

Subsistence activities like collection, hunting, fishing and small agriculture are based on the sustainable use of rainforest. Small agriculture is itinerant since the soil nutrients run out fast. The Amazonian rainforest fertility depends on the exchange of Amazonian and Andean waters through rivers and rain.

The Amazonian people have developed adaptation practices and they have understood the climatic, biological, physical and geographic diversity of their domains throughout the years. For instance, before the rainy season, Amazonian people identify adequate soil to make it into a small farm. This choice is generally guided by the behavior of some insects. Also, they recognize the best land by its color and texture. They take care of basins that preserve trees of the mountains; they avoid soil erosion; they check the course of the rivers; and they reforest degraded areas through the traditional system.

Amazonian women are engaged in planting, weeding, harvesting and taking care of organic garden. Men, since their childhood, are trained in entering the forest for hunting, small agriculture and fishing. Women have an important role in their community as they are responsible for nurturing and transferring practices of their culture, (such as songs, dances, food and medicine preparation, craftwork, among others), collection of fruits and subsistence food, production of pottery, baskets and indigenous textiles (for domestic use, exchange or sale). They are also in charge of collecting log and water and of feeding animals (minor animals or cattle).

However, in the Amazonian region, women have little opportunities to participate in leadership because men are the leaders of opinion as a result of their chances for education. Men are able to speak in two languages, the indigenous language and Spanish.

Amazonian communities and peoples are organized in national, regional or provincial organizations. These organizations lead the development of proposals of their communities and they ensure that their community's rights are respected. These organizations also mediate when there are internal conflicts with neighboring communities.

Unfortunately, unequal economic systems have deteriorated indigenous culture. The ancestral values of indigenous communities regarding forest preservation have declined because of the necessity to buy goods and services despite low income. Some Amazonian communities and families rent lands for temporary farming mainly of corn and coffee. Most of the communities are exposed to pressure from loggers to sell timber in unfair and inequitable conditions. This topic will be discussed in the next section.

Drivers of Deforestation.

Since 1970, the Peruvian State has developed laws and economic policies to make the Amazonian region productive. The State has promoted migration from the Andean and Coast regions to Amazonian rainforests to expand the agricultural frontier. It has likewise promoted investment in hydrocarbon, mining, hydraulic energy and recently, in biofuel and timber production. To provide better access to the area and to integrate the Amazonian region to the country, the State has built roads.

There was also a law that changed the legal situation of Amazonian people. Before 1970, Amazonian people did not live in communities; in fact, they used to manage huge extensions of forests to practice agriculture, fishing, hunting, collecting and others. These territories, however, were not recognized by the new laws. In order to legalize their territories, the Amazonian indigenous groups had to lose part of their territories and began to live in communities with legal titles. This political context has changed the traditional life of indigenous peoples because the Peruvian State has the political, technical and legal power to make concessions over the rainforest.

Amazonian people practice small agriculture especially on rivers' shores. They burn small forest extensions (which vary from 0.25 to 1 ha) to seed cereal-growing crops such as potatoes, beans, corns, leguminous plants, mandioca, banana and peanuts for self consumption. With such livelihood, they get low income which cannot adequately satisfy their needs such as education, health service, communication, transportation, among others. Because soil requires eight to 10 years to rest and restitute its fertility, Amazonian families look every two or three years for adequate lands to make "itinerant farming." This activity; however, cannot be called "deforestation" because it is only small scale.

According to national data in the year 2000, rainforest covered 53.5 per cent[5] of the national territory and the Amazonian region has more than 95 per cent of the total forest area (See Tables 4 and 5). According to the kind of land tenure, the Protected Natural Areas (PNA) is the most important category (36%), the second is concession forest and forest in production (25%),

the third is communities (13%). Four political regions, where more than 75 per cent of Amazonian indigenous population lives, have the largest rates of deforestation. These regions are: San Martin, Amazonas, Loreto and Junín (See Table 6).

The change in land use is one of the main reasons for deforestation.[6] Primary rainforests are converted to secondary forest/agriculture which comprises 44 per cent of the total area; secondary forest is 28 per cent, pasture is 16 per cent, agriculture is 10 per cent and area without vegetation is one per cent. It is necessary to measure and quantify deforested areas caused by other economic activities especially those called mega projects and those generated by illegal activities such as illegal logging and drug trafficking (See Figure 3).

It is important to highlight that more than a third of Amazonian communities have illegal logging (31%) as main problem in addition to hydrocarbon exploitation (9.1%). Only 19 out of 1,786 Amazonian communities are not affected by illegal logging.

Table 4. Forest surface of Peru by natural region

Natural region	Percentage (%)	Km^2
Coast	2.58	18,820.00
Highlands	1.33	9,700.00
Rainforest	96.09	702,180.00
Total	100.00	730,700.00

Source: Virtual encyclopedia "Ecology of Peru". Available at http://www.peruecologico.com.pe/lib_c19.htm. Accessed on 18.08.2010.

Table 5. Rainforest surface of Peru

Area	Kilometres^2	Percentage (%)
Peru	1,285,215.60	100.00
Rainforest (1990)	701,560.00	54.57
Rainforest (2000)	692,213.00	53.86
Rainforest (2005)	687,420.00	53.49

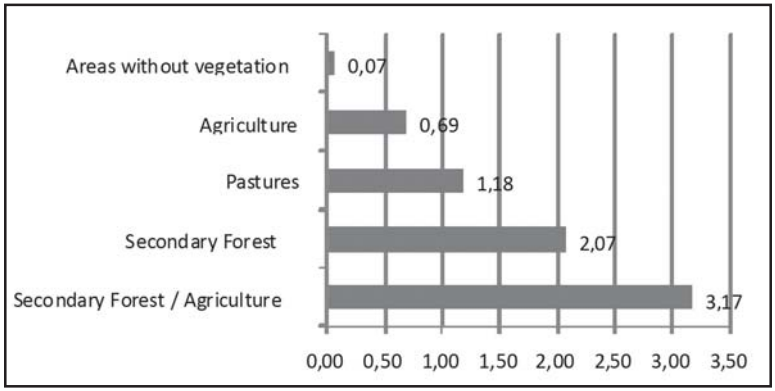
Source: CEPAL, 2009.

Table 6. Deforested area in Peru by political regions

Political region	Deforested area (Ha)	Percentage (%)
San Martín	1,327,736.15	18.51
Amazonas	1,001,540.11	13.96
Loreto	945,642.15	13.18
Junín	734,303.77	10.24
Others	3,163,731.79	44.11
Total	7,172,953.97	100.00

Source: National Institute of Natural Resources – NINR[7] (2000).

Figure 1. Deforestation rate by change of land use (Millions of hectares)



Source: NINR, 2000.

There are other activities that have to be addressed carefully because of their impact on deforestation. These are: migrations, increase in population, unplanned human settlements and expansion of cities. Population in the Amazonian region has more than doubled between 1940 and 2007. Today, it represents 13.4 per cent of the national population, who have begun to enlarge the economic system based on rainforest exploitation, commercial agriculture or illegal mining.

Illegal cultivation of coca leaf is another cause of deforestation. This activity is mainly practiced by people who migrated to the Amazonian region. The construction of roads also affects the rainforest, protected natural areas and indigenous peoples themselves. The construction of the 1,071.30 kilometer South Inter-Oceanic Corridor caused the deforestation of 90,506 hect-

ares of rainforest only in the Amazonian region of Puno. This deforestation was not only caused by the construction but also migration from several provinces to areas near the road.

Since Amazonian peoples were forced to live in communities and the State had as policy to make the Amazonian area productive, the livelihood, traditional practices and culture of Amazonian peoples were affected. First, they did not own enough territory to obtain resources; their food and nourishment are not like they used to be. Hunting and fishing have become more difficult for them now because they were compelled to stay in a different place. Also, concessions and illegal logging had a significant impact on their life because rainforests are cut down and the biodiversity in them is disturbed.

Amazonian communities had to make a forest management plan to manage their own rainforest but they did not have the technical capacities required. Loggers offer help to them but communities are constrained to sell their timber to the loggers. Once communities lose part of their rainforest, their territory is compromised.

Deforestation, education and health services, need of income, migration, economic activities and the state power over all Peruvian territory are the most important factors that impact on the culture of Amazonian peoples. All of these have been affecting the way these people dress, cook and eat. Languages, traditional songs and some spiritual values were affected too. It is important to mention that these factors affect the role of women in Amazonian society. For example, they used to provide cloths, weaves and different handmade instruments to the family but these were replaced by goods from the market.

Another cause of changes experienced by Amazonian peoples is the increase in social conflicts arising from exploitation of renewable and non-renewable resources. Since nature has been part of the life and experience of Amazonian peoples, they reject any exploitation of this such as exploitation of wood, minerals and hydrocarbons because this could diminish their natural resources, increase pollution levels and reduce spaces and life quality of Amazonian families. In more than one third of Amazonian communities, there are potential conflicts due mainly to land tenure. When indigenous people temporarily abandon their

lands because of itinerant agriculture, new inhabitants occupy these lands for breeding of minor animals (poultry). Such conflicts occur because the determination of territory boundary is not according to ancestral practice.

Amazonian organizations in the national and regional levels appeared in 1980 in order to face concerns that affect indigenous people in the area like territory, legal titles, forest management plan, intercultural education and health and indigenous peoples in voluntary isolation. With this objective, these organizations began to use legal instruments to defend their rights. Since then, they have developed different strategies to advocate indigenous peoples' welfare and to lobby for support from the government.

Regulation System Framework and International Agreements Related to Indigenous Peoples

The International Labor Organization Convention 169, known as ILO 169, is the most important international treaty ratified by Peru related to indigenous peoples' rights. According to ILO 169, the State must recognize and protect the lands of indigenous inhabitants as a guarantee for their material and cultural reproduction. The State must also develop public policies that eliminate any type of physical and legal discrimination and inequality before the dominant society.

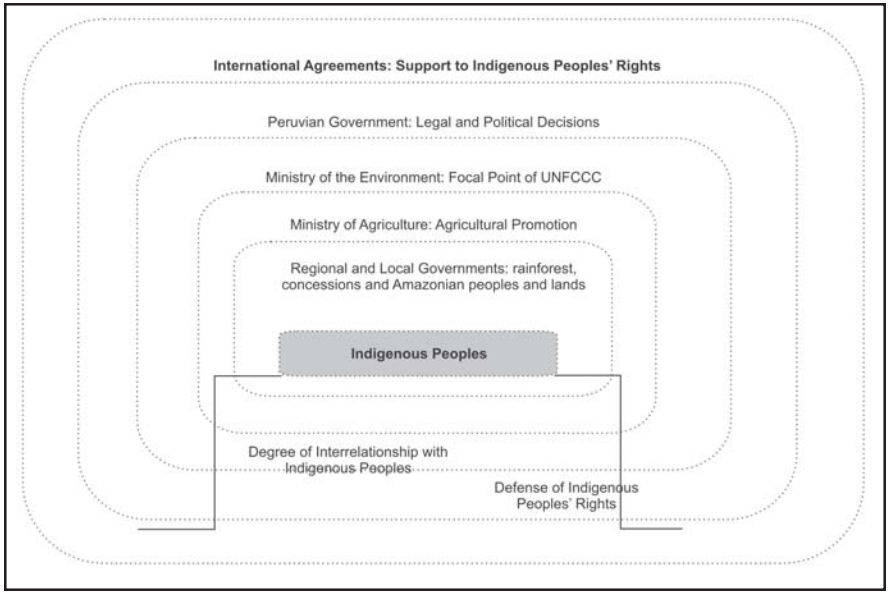
The International Covenant on Civil and Political Rights of 1966, ratified by Peru in 1978, and the International Covenant on Economic, Social and Cultural Rights also of 1966 are other important legal instruments in favor of indigenous peoples' rights.

In the South American Region, Peru signed the Andean Charter for the Promotion and Protection of Human Rights that recognizes indigenous peoples' rights. This Charter reasserts the respect for their collective rights and their customary forms of social organization. Likewise, it recognizes property rights, the use of such property, management and use of natural resources in their lands and territories, and the right to consultation on non-renewable natural resources in their lands. Peru

also signed the Rio Declaration and Agenda 21. Both recognize the need of participation of indigenous peoples in policies that guarantee a sustainable development.

It is important that Peru signed and ratified these international instruments because their governing principles and rights are incorporated in the internal legal system. Because these instruments are founded on the recognition of indigenous peoples' rights, the Government and the Peruvian society as a whole are bound to respect these rights and to enforce means to protect them.

Figure 2. Inter-institutional relations with indigenous peoples



Legal and Institutional Framework Related to Climate Change, REDD and Indigenous Peoples

The institution in charge of environmental regulations and climate change is the Ministry of Environment (MINEN) created in 2008. MINEN is the focal point of UNFCCC which is responsible for the National Climate Change Strategy and leader of the National Climate Change Commission. MINEN has decentralized agencies such as the National Service of Protected Natural Areas responsible for the care and preservation of protected natural areas as well as the protection and promotion of the economic development of communities that live in protected natural areas.

The Ministry of Agriculture (MINAG) is in charge of the technical assistance in agricultural and forest activities and it provides support for the sustainable commercialization of resources. MINAG receives support from the Forest and Wildlife Office which is responsible for forest care. The National Water Authority, on the other hand, is in charge of basin management.

Regional and Local Governments are responsible for the supervision of environmental care and sustainable utilization of resources, especially in preservation areas. To perform this, they have the Natural Resources and Environment Division. Governments also protect the peoples' economic development through the promotion of their own regional and local natural resources.

Until now, Amazonian rainforests have been considered a territory to be developed with the help of forest, agricultural and mining concessions, or with preservation and biological research purposes. The value of rainforest as essential element in the life of indigenous peoples and in the mitigation of climate change has not been considered as it deserves in the national legislative body (See Annex 6).

Peru does not have any specific law or policy on REDD. In fact, it is still in process. MINEN has installed the National Commission on Climate Change in May 2009. This August, with the Supreme Decree 009-2010, the structure of NCCC was changed. Now, 29 institutions are considered. Before, indigenous organi-

zations can participate in NCCC discussions but they cannot vote. Now, one indigenous organization can be part of NCCC with voice and vote.

The NCCC is composed of seven work groups and one of them is working in Reducing Emissions from Deforestation and Degradation (REDD). The REDD work group is coordinated by REDD Group (group of civil organizations) while MINEN is the technical secretary. The REDD work group is working in the RPP but the NCCC is the only authority that can approve it. The REDD work group is composed of government and private sectors and civil society groups that specialize in conservation, forest and environment. Indigenous organizations are also consulted.

Processing, Designing, Implementing, Monitoring and Evaluating REDD

Concepts like participation, consultation and consent require to be strengthened and applied in order to implement REDD strategies. According to the ILO 169, these must be in accordance with the law and carried out with good faith.

Environmental laws recognize the natural resources management carried out by indigenous peoples, but the Government reserves the right to grant those resources to concessions as provided by Article 17 of Law No. 26821.

The 1984 Civil Code and its regulations on recognition and registration of Andean and Amazonian communities state a series of requirements that restrict the possibilities of full recognition of rights of indigenous peoples. These could be threats to the full recognition of the indigenous peoples' rights to use their resources through REDD strategies since it would be difficult to have documents certifying their ownership of these resources.

National laws recognize Andean and Amazonian communities and indigenous peoples' territorial rights, but these are subject to a series of requirements such as registration, permanent possession and continuation of their traditional forms of social organization. A critical issue for Andean and Amazonian indigenous peoples is the Civil Code and the Legislative Decree 653

which open the possibility that lands that were granted to them in concession may be declared legally abandoned when they do not occupy these lands and practice agriculture over the rainforest.

This is a very risky situation because Andean and Amazonian ecosystems follow periods that are longer than the established legal term. Therefore, there is a latent threat regarding respect to indigenous peoples' ways of life and use of their land. Although the right to use land is in favor of the indigenous peoples, the subsoil may be granted in concession and this may result to two recognized holders owning the same land, and yet no coordination or resolution mechanisms on the management of a single space have been established.

In Peru, subsoil property rights are different from land property rights. In the legal context and in practice, these are two separate rights. The owner of the land (ground) is not the owner of the subsoil that could have mining or hydrocarbon concessions. Article 954 of the Peruvian Civil Code states that "subsoil property does not comprise natural resources, mineral deposits and archeological remains, or any other goods governed by special laws." This legal provision is consistent with the provisions in the Political Constitution of the Republic of Peru, which by applying the criterion on public property of subsoil, states in Article 66 that "Renewable and non-renewable natural resources are national heritage. The Government has sovereignty over their use." This is a permanent risk and conflict with the Government regarding the possession and usufruct of natural resources.

On the other hand, Protected Natural Areas (PNA) are superimposed with Amazonian lands, which generate the following effects: a) Since PNA are "National Heritage" (Article 66 of the Constitution), the Government decides on how such resources are to be used; b) Protected Natural Areas, except for Private Conservation Areas, are established conclusively (Article 3 of Law No. 26834), i.e., no new Amazonian communities can be created within them once they have been established; c) communities adjacent to PNA may not extend their territory if such extension affects PNA; d) Amazonian communities existing within a PNA must restrict their traditional and non-traditional

activities to those determined in the natural areas management plan. This restriction must be subject to prior consultation, as indicated by the ILO 169. However, it is worth mentioning the case of Santiago Comaninas Reserve, where indigenous peoples were not consulted about the creation of a reserve area.

Given the considerations above, it is apparent that legal possession and access to land and resources are critical aspects for the Amazonian peoples regarding REDD strategies.

One of the main problems faced by indigenous people is the lack of State commitment to systematically and coherently apply internal regulations and international instruments that acknowledge their rights. The implementation of regulations is subject to a series of economic, political and ideological considerations that, in the end, reduce the social effectiveness of formally established rights.

The recent promulgation of Decree Law 102 for facilitating the Free Trade Agreement with the United States evidenced the privilege towards large private investments. For this reason, in May 2009, indigenous communities[8] protested against the State's decision of granting oil exploitation rights in their territories without previous consultation. Subsequently, and after the conflict in the Bagua, Amazonas, the Congress decided to derogate Decrees Law No. 1015 and 1073.

The Amazonian Center of Anthropology and Practical Application carried out a comprehensive analysis of seven decreed laws related to the Amazonian rainforest. Besides 1073 (derogation in progress), it mentions Decree Laws No. 994, 1064, 1079, 1081, 1089, and 1090. Its analysis shows that all violate the Constitution as well as international treaties signed by Peru. On page 27 of such analysis, it states that "the economic policy executed by the government causes indigenous peoples to be unprotected, as the policies are not linked to a protection regime for the collective rights of these peoples." Collective rights are based on territory ownership and recognition of preservation of their livelihoods. For this, they request for "the establishment of adequate policies that permit the sustainable development of these peoples and the natural resources that are part of their ancestral territories."

On the other hand, the Alternative Report 2008 on ILO 169 says that "the President of the Republic, through an opinion article presenting his proposals for the modernization of the State and the development model, questions the existence of Amazonian and Andean communities as a social and historical reality and expresses the need to return such communities' territories to the State in order to hand them over to large investors." It also states that "The Peruvian State has not developed regulatory or institutional support that generates conditions for the inclusion of indigenous peoples as right-holders who must be informed about development policies and models that affect them." Not to say that consensus-building spaces for initiatives have not been created, nor the development vision of indigenous peoples for the design of public policies with an intercultural approach."

In this regard, an analysis of the effect of these regulations on REDD implementation in Peru involving indigenous peoples may be carried out.

Table 7. Current regulations potential negative effects

Topics	State position	Relation to REDD
Self Determination	The State has created ambiguous laws where expect peoples are favored, but so is the promotion of investments. State Sovereignty is exercised for the implementation of its strategies, that is, not taking into account the opinion of the lands' owners.	It is possible that REDD strategies may be implemented, but not encouraging indigenous peoples' rights and opportunities.
Territoriality	A land owner is the person who has a property title, not peoples who have rights granted by ancestral patterns. The owner of the land is not owner of the subsoil.	Danger of natural resource exploitation by groups different from Amazonian peoples. Threat of dispossession.
Establishment of an NPA in native territory	The State is free to create ANP where exploitation rights are restricted to native peoples.	Limiting the participation of peoples in REDD processes.

National Program Framework

By strengthening relationships between indigenous peoples, forests and REDD and by taking into account socio-cultural levels (what the forest means for indigenous peoples: spirituality, traditional knowledge and forest management), physical resources (Amazonian communities, land and other resources), environment laws (governments' laws and policies for indigenous peoples, forests and REDD), we may say that REDD would be ideal.

The national environment policy is the base for environment preservation and sustainable use of natural resources. Given its recent implementation in 2009, it has gathered the consensus of diverse national policies in order to harmonize implementation criteria. It integrates the National Strategy on Climate Change (2003) and the recent strategies related to REDD, such as the "Preserving Together" program and the National Strategy to Fight Desertification and Droughts.

The climate change strategy has outlined decentralized action plans to reduce pollution levels and improve the environmental quality through basin management, forest preservation and reforestation. REDD strategies at the State level began in 2009 and intervention methods and payment and incentive systems are just beginning to be designed. Policies, strategies and programs related to natural resource management, rainforest, indigenous peoples and REDD strategies are:

National Environment Policy: It encourages the sustainable use and preservation of natural resources, environmental quality and governance, compliance with international environmental commitments, as well as the regulation of aspects related to biosafety and genetic resources for a more efficient protection of the country's public health.

National Commission on Climate Change: Follow-up of the public and private sector in the implementation of the United Nations Framework Convention on Climate Change as well as the promotion of the National Strategy on Climate Change.

National Coordination Group for the Development of Amazonian Peoples: Preparation of the Comprehensive Plan on Sustainable

Development for Amazonian peoples on the fields of education, health, titling procedures, land formalization and other necessary additional measures.

National Strategy on Climate Change. Supreme Decree No. 086-2003-PCM: Reduction of deforestation, migratory agriculture control, surveillance of illegal appropriation of lands, change of land use.

Program for the Conservation of Amazonian Rainforests: "Conserving together" program. This program is an initiative of the Ministry of the Environment and is under the implementation stage.

National Strategy to Fight Desertification and Drought: Promotion of an effective action against desertification and drought through local innovative programs and international cooperation.

REDD Implementation Process at the National Level

The Forest Partnership Cooperative Facility (FPCF) was created by the World Bank (WB) in order to support the design and implementation of REDD schemes in developing countries. The FCPF is made up of two independent financial mechanisms: a) Mechanism of Preparation; and b) Mechanism of Carbon Financing. The first one is intended to help developing countries estimate accurately carbon stocks in their forests, emission sources of CO2 and future emissions. Some of the interested countries will be selected to participate in the second mechanism, which consists of implementation and assessment of REDD pilot programs.[9]

For the application for FCPF fund, the Readiness Plan Idea Note or R-PIN should be submitted to the WB. This document should contain general information on the patterns of land use, deforestation causes, public consultation and potential institutional agreements related to REDD between requesting countries. Peru presented its R-PIN in September 2008.

Following the necessary requirements to apply for FPCF, the country is currently in the preparation process of the Readiness Preparation Proposal (R-PP, known as R-Plan) to be sub-

mitted to the FCPF at the end of this year. The R-PP was socialized to civil organizations and it will be reviewed by key actors of the organized civil society (See Table 8).

Table 8. Process of Peruvian State to implement REDD projects

Phase	Process	Peruvian state
I	Presentation of R-PIN.	R-PIN revised and selected by the FCPF committee. Presented in June and approved in September 2008.
II	Formulation of R-Plan.	Participative Preparation of R-Plan. In progress.
III	Conduct studies and activities proposed in R-Plan.	Design of REDD strategies; REDD implementation framework; Reference sceneries; Design national system design of monitoring, reporting and verification; Carbon stocks assessment; Impact analysis; Consultation process.
IV	Implementation of REDD strategies	Investment in programs/projects; Investment in governance, new policies; institutional framework; Initial investment in REDD projects.
V	Payment for environmental services	Design of demonstrative projects; Monitoring, reporting and verification reduced emissions; Payments.

Peruvian state is right on phase II, formulating its R-Plan. While involved civil society groups and government institutions are leading this process, indigenous organizations attempt to be informed and get a sense of this technical process in order for them to claim their rights.

For the formulation of the R-Plan, the following steps should be made: Identification of the forest types (baseline) since every forest and forest species contain different carbon proportion; checking and certification of the CO2 emission reduction; and valuation according to forest type. A value from US$10 to 40 of tons per hectare of accumulated CO2 is estimated worldwide. Carbon credit emission has two modalities: Certificates of Re-

duced Emission, negotiable in the carbon official market, and Voluntary Reductions of Emissions, negotiable in the carbon voluntary markets.

According to Antonio Brack of the Ministry of Environment, the program "Preserving together" has the objective to assist indigenous peoples from Amazonian areas preserve the 11 million hectares out of 66 million hectares of national forests. This program will pay $10.00 or $3.70 per ha of preserved forest. Also, indigenous peoples will be trained to take care and watch protected areas and others will be sponsored to study at universities and institutes. This program will begin in 2011 with 84 comunidades asháninkas with 622 mil hectares of forest. This region has problems with illegal production and trafficking of coca leaf.

Also, there are 17 projects directed by civil organizations developed in nine regions. San Martin and Madre de Dios have became the most interesting regions for REDD projects. Both areas cover 10 out of 17 REDD projects.

Unfortunately, there is no a clear process to see the participation of indigenous people especially in those projects that include avoided deforestation and carbon sale.

From the implemented projects, 11 are operated with indigenous communities and the rest with private concessions and ANP (See Table 9 and Figure 3).

REDD work is focused on research of the forest potential known as the REDD baseline. This research supports the determination of the carbon captured quantity for future negotiations. It is worth mentioning that no REDD projects are under negotiation phase yet.

There are parallel addressed issues such as MDL and Forestry Management projects that support the climate change and deforestation processes.

REDD work is carried out exclusively in forest conservation areas, but not in deforested areas, which is where CDM projects are performed. There are 27,356,400 ha of forest which may be used for REDD work because they are historical property of Amazonian communities. These lands are distributed among

Table 9. REDD Projects in Perú

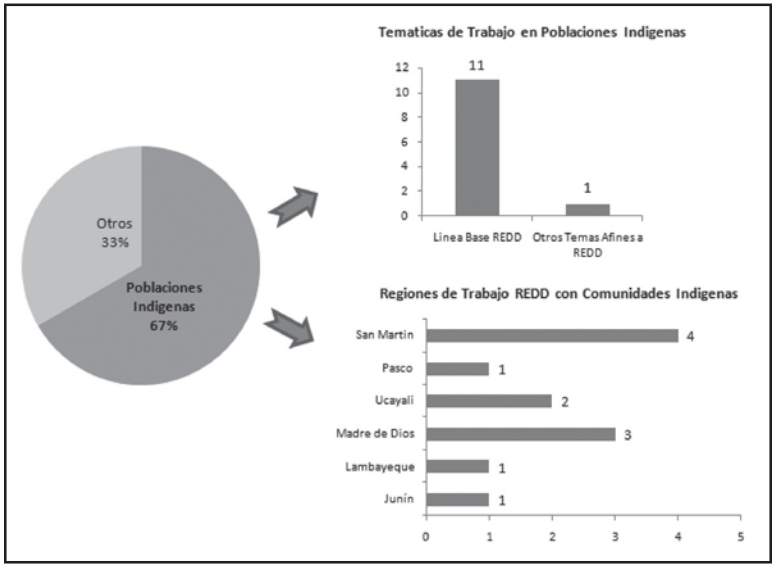
Institution	Siglas	Projects and Programs	Region	Currently state
Asociación para la Conservación de la Amazonia	ACCA	Línea base de carbono, social y de biodiversidad para la Concesión de Conservación "Los Amigos"	Madre de Dios	Executed, July 2008
Consultora ASESORANDES	ASESORANDES	Manejo comunitario sostenible del bosque y sus recursos, en la Comunidad nativa Bélgica	*Madre de Dios*	Executed, May 2007
Asociación para la Investigación Integral	AIDER	Investigación REDD como mecanismo de sostenibilidad en la Reserva Nacional Tambopata y el Parque Nacional Bahuaja Sonene.	*Madre de Dios*	Implementing, March 2009
Asociación para la Investigación Integral	AIDER	REDD en comunidades nativas con certificación forestal FSC en la Amazonía Peruana	*Ucayali*	Executed, May 2005
Asociación para la Investigación Integral	AIDER	Deforestación evitada por manejo forestal sostenible en concesiones forestales de producción maderable con certificación FSC (Maderacre y Maderyja).	*Madre de Dios*	Executed November 2007
Asociación para la Investigación Integral	AIDER	Proyecto de reforestación José Ignacio Távara. Primer proyecto MDL del Perú.	*Piura*	Implementing, January 2010
Asociación Amazónicos por la Amazonía	AMPA	Reducción de Emisiones derivadas de la Deforestación y Degradación en la Concesión para Conservación Alto Huayabamba - Ecosistema de Jalca y Yungas. Amazonía Andina.	*San Martín*	Executed, October 2004

Cámara Nacional Forestal/Asociación para la Investigación Integral	CNF/AIDER	Manejo Sostenible de un Bosque Comunal de Shiringa (*Hevea brasiliensis*) como Alternativa a la Deforestación y Degradación de Bosques en la Amazonía Peruana	*Pasco*	Executed, April 2006
Conservación Internacional	CI	Proyecto de Carbono Bosque de Protección Alto Mayo	*San Martín*	Executed, February 2006
Centro de Conservación, Investigación y Manejo de Áreas Naturales	CIMA	Línea base de carbono, social y de biodiversidad, Parque Nacional Cordillera Azul	*San Martín*	Executed, June 2008
Centro de Investigación de la Selva Alta	CEDISA	Línea de Base del Potencial de Oferta de Reducción de Emisiones Derivadas de la Deforestación y la Degradación en Áreas Naturales Protegidas, Territorios Comunales y Concesiones Forestales en la Selva Alta.	*San Martín*	Executed, August 2008
Desarrollo Rural Sustentable	DRIS	Programa de desarrollo territorial humano sostenible y de deforestación evitada integral en la Zona de Amortiguamiento de la Reserva de Biosfera del Manu (DEI-MANU) y el Corredor Forestal Pillcopata – Quincemil.	*Madre de Dios, Cusco*	Executed, October 2007
Red de ecoturismo comunal en Perú.	ECOMUNAL	Análisis de Viabilidad de implementación de proyectos REDD con el Santuario Histórico Bosques de Pómac (SHBP).	*Lambayeque*	Executed, April 2008

Instituto Bien Común	IBC	Proyecto de Reducción de Emisiones de Carbono por Deforestación y Degradación (REDD) para la protección del territorio indígena Cacataibo.	*Ucayali*	Executed, November 2008
The Nature Conservancy	TNC	Proyecto Acción Climática Selva Central	*Pasco*	Executed, February 2005
World Wildlife Fund	WWF	Línea base sobre el potencial de oferta de reducción de emisiones derivas de la deforestación y la degradación (REDD) en la Amazonía Andina peruana.	*Madre de Dios*	Executed, February 2009
Mancomunidad del Yacus	YACUS	Área de Conservación Multicomunal Mancomunitaria del Yacus	Junín	Executed, April 2006

Source: Peru REDD Group (2009).

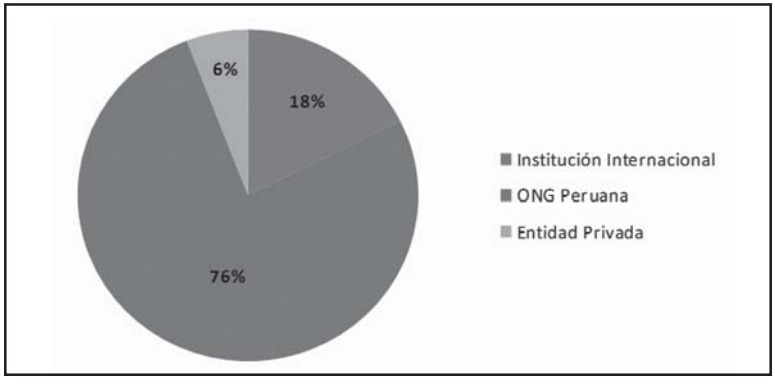
Figure 3. REDD Projects implemented in Peru, by region and main actors



different types of forests where technical teams must certify their quality for carbon capture.

It is worthy to mention that among the institutions participating in REDD processes in Peru, there are national and international NGOs and private companies. Among NGOs, AIDER's participation stands out with five projects on this topic. Among international institutions, WWF and Conservation International stand out (See Figure 4).

Figure 4. REDD Project, by implementation actor



It is notable that indigenous peoples have been developing REDD projects with support of third parties due to the technical and analytical nature required by the determination of forests types and CO2 quality and quantity that the forests may capture. This work requires international alliances that support economically and scientifically the forest analysis, because of the high costs of the studies, which also require foreign accreditation. For this reason, indigenous peoples need the support of institutions such as NGOs and international entities. In this regard, indigenous peoples' participation would be focused on forest management processes, that is, once REDD strategies are outlined; the work would integrate the peoples' support in preservation through their livelihoods and traditional knowledge.

Issues for Discussion and Challenges

The implementation of REDD strategies sets the following challenges:

In relation to the superposition of concessions in indigenous territories

The concessions[10] as legal figure given by the State for the use of renewable and non-renewable natural resources of the subsoil or ground of the same territory have generated conflicts between holders of concession rights and holders of the territory. This legal figure has allowed mining and hydrocarbon concessions to be allowed in indigenous territories and protected natural areas.

In this trend, the Peruvian State has to take care in order to prevent the transfer of these conflicts into REDD strategies when it decides on concessions for the promotion and economic advantage of the environmental services of the rainforests and other natural resources. A coordinated and inter-sectoral work between the MINAG and Ministry of Energy and Mines is recommended to avoid the superpositions in the concessions.

Legal framework for the use of resources

Three important laws for ordering the legal frame for the Amazon and indigenous peoples are hoped to be approved or to be modified by the Congress and the Executive power. One of these laws is the Forest and Wild Fauna Law that has not been approved since the indigenous organizations impelled the derogation of the 1090 Decree Law[11] because it facilitated the conversion of rainforest into agricultural zones. MINAG, through a process of updating, has produced a draft text of the Forestry and Wild Fauna Law. It has the main objective to ensure the conservation, protection, increase and sustainable use of forests and wild fauna as well as the maintenance and improvement of forest ecosystem services. The authorities concerned must share social, economic and environmental view.

The approval of the Environmental Services Law will govern the use of environmental services with the aim of contributing to the conservation, restoration and sustainable use of natural resources.[12] Both laws have a direct influence on the lives, territories and indigenous resources because these laws, in accordance to ILO 169, require that indigenous people be consulted before any promulgation.

The third is the Consultation Law on Indigenous Peoples that the Executive power has observed in order to guarantee the unitary and sovereign character of the Republic. The Law recognizes the rights of indigenous peoples to be consulted on legislation, program development and administrative measures which directly affect their collective rights. Despite these provisions, the legal and political frame for the recognition and protection of the rights of the indigenous peoples to their lands, territories and resources is still weak, to say the least.

For these reasons, indigenous organizations have the challenge to develop joint proposals and processes of negotiation with the State and the State has the challenge to harmonize development with the rights of indigenous peoples especially when issues on natural resources and property of territories are concerned.

Exclusion of indigenous communities from REDD

Amazonian peoples have adapted to the diverse, complex and variable nature of the tropical forests, and have even generated domesticated biodiversity. However, the current necessity for income generation to meet economic needs and family increase are factors that exert pressure on territories, resources and forest preservation. It is necessary to analyze these problems and what they mean for forest preservation as livelihood for Amazonian communities and, eventually, as income generator within the framework of REDD strategies.

The positions in favor and against REDD strategies may create some division and conflict between Amazonian organizations that choose to try such projects. The opportunities offered by such programs should be disseminated together with how indigenous communities and peoples would participate and who would the allies be. Risks must also be analyzed especially when not all the communities will have the capacity to meet minimum conditions to be attractive for REDD projects due to their size, deforestation percentage, undefined boundaries, coexistence with tenants or other indigenous peoples. This differs from the State's situation which manages Natural Protected Areas with a completely conservationist approach and with large extensions of primary forests.

Land tenure conditions of indigenous territories and REDD

There are preliminary conditions for Amazonian communities and peoples to be benefited by REDD programs:

- Physical-legal reorganization of Amazonian communities' forests, territories and resources;
- Legal framework that strengthens the communities' right to manage, use and enjoy their forest resources.

If these legal framework are not complied with, Amazonian communities may be threatened by the possible increase of preservation concessions in the framework of REDD programs.

It is true that cultural practices have decreased over time due to migration to Amazonian territories, incorporation of foreign technologies, and adoption of external cultural and consumption patterns, among others. One challenge is to recover and demonstrate the effective and appropriate nature of ancestral territory, biodiversity and food management.

Needs and gaps of information

Within the framework of REDD programs, NGOs specializing in forest issues, the State and private companies are better informed; they have finances; and they handle tools and legal frameworks; in other words, they have an advantageous position compared to indigenous organizations with regard to negotiation of carbon capture. Indigenous organizations would need to seek allies in order to find economic and scientific support necessary to venture into REDD strategies.

Conservation criteria, REDD and indigenous peoples life

Currently, Amazonian families clear small areas of forests for agriculture in order to have food for self consumption and to get income. They do this because their territory has been reduced to communities establishing legal boundaries. Even under these conditions, Amazonian families protect Amazonian forest biodiversity in gardens for medicinal and cultural use. At community level, territory is divided into forest protection areas where biodiversity is preserved and used for hunting and collecting fruits. The risk to Amazonian communities is that REDD scheme put more emphasis on legal system that reinforces criteria of conservation. Also, they will face the risk that other stakeholders have technical and legal capacities.

Any scheme of payment for environmental services of forests must incorporate the vision of management and ownership of forests that Amazonian communities have. This is particularly urgent in Peru since the national and regional legislation and institutions do not recognize or protect the rights of indigenous peoples to manage and control their territories and resources according to their traditions. This is the result of the

fact that national legislation is not harmonized with international laws that recognize the rights of indigenous peoples to their lands and territories. Similarly, the State does not provide long-term tenure security for land in a collective way.

The indigenous customary laws and practices promote the conservation and sustainable use of forests for the welfare of current and future generations. In this case, internal mechanisms and monitoring could be considered as social and cultural means to restrain deforestation by outsiders.

Actions and Responses

Participation of indigenous organizations

Indigenous organizations need to participate in spaces opened by the State for discussion and follow-up of agreements related to climate change. These organizations must present the impacts of climate change and other issues related to it in the social structure and environment of indigenous communities. The role of the youth and women in initiatives to arrest the effects of climate change should also be emphasized.

Amazonian communities may be left out of REDD programs negotiations because, to date, they do not participate directly in negotiations or discussions. The rights won at the international level should be translated in these spaces, but the indigenous organizations should be the ones to emphasize them.

NGOs specializing in the sector are becoming organized to support REDD strategies. Some of them have already developed baseline projects to identify the forests' potential to capture carbon. Likewise, they are leading regional information and dissemination processes related to climate change. In this regard, Andean and Amazonian indigenous organizations should define their participation in the climate change and REDD issue in order to start leadership processes within Amazonian communities.

Communities and their claims to enlarge their territory

Members of indigenous communities should promote negotiations with the State for collective land titling procedures for indigenous communities. They should start the discussion on the effects of extremely reduced limits that were imposed or poorly negotiated on forest sustainability. They must also outline policies and programs for the benefit of deforested Amazonian communities so these can recover their capacity to generate subsistence means with native species.

Amazonian communities have requested to increase their legal recognized areas in order to ensure better access to forest resources. The Peruvian government, however, has shown slow response to this request. In this context, Amazonian organizations have endorsed a national representative to be a mediator between the State and the Amazonian communities. This representative seeks to address concerns that affect Amazonian people. Mainly, Amazonian organizations have been developing initiatives with the objective to include in forest policy the community forest management and life plans of Amazonian communities in their vision of development.

Enhancement process of indigenous organizations and indigenous women organizations

So far, indigenous organizations are getting information on global processes of climate change and REDD. These organizations are getting trained and informed through partnerships with regional governments and NGOs. This process began with the International Summit on Indigenous Peoples and Climate Change when indigenous organizations from all over the world analyzed impacts on climate change. Chirapaq led a national and Latin American process socializing information in the 1st Latin American Summit: Climate Change and Indigenous peoples, 2nd Latin American Summit: Climate Change and Indigenous peoples, Post Copenhagen Round Table "Policies on Climate Change, Indigenous Peoples, and Reduction of Emissions due to Deforestation" and Strategy National Workshop. These meetings work as common spaces to share information, position, conclusions, proposals and concerns among indigenous

experts, governments, UN agencies, NGOs and indigenous organizations from local and regional levels. Indigenous women organizations actively participated in this process of analyzing the pressing concerns on climate change.

RECOMMENDATIONS FOR THE FUTURE

Change the Development View of the State for Amazonian Regions

Historically, Amazonian region has been seen as an empty territory to be developed, inhabited and made productive. Neither indigenous Amazonian peoples nor their ways of managing and governing their territory, ecosystems and resources were visible to the state. Today, more than before, policies mainly aimed at colonization of Amazonian lands, large agriculture and cattle and logging concessions must be reviewed. The State must protect and promote the real richness in Amazonian region which are its water, biodiversity, environment services and culture.

Andean and Amazonian Regions are Interdependent

The Andes and the Amazonian regions are not divided; they are interdependent. High mountains, glaciers and Andean forests must be taken cared of because the good condition of these ensures better ecological state of rivers and the Upper and Lower Amazonian regions. It is necessary to emphasize this approach in the economic development policies both for the Andes and the Amazonian regions. We have seen that one of the main drivers of deforestation is the Andean migration. It happens because Andean residents look for employment, higher income and land, among others. It is therefore necessary that economic and social policies for the Andean region should address the needs of its inhabitants so that they may become satisfied.

Review of Legal Framework for REDD

REDD is positive because its main objective is to reduce deforestation and degradation. In the case of Peru, deforestation is related to legal logging, agriculture, cattle and migrations; degradation is related to the illegal and unsustainable logging. Both are problems that indigenous communities have been faced with. The Peruvian state needs to review its forest and land tenure policies. Legal concessions for logging are the second category of land tenure while Amazonian communities are claiming to enlarge their territories. On the other hand, there is a problem that is yet to be resolved. This has to do with the question of ownership of the environment services of the forest. It has been a point of argument whether the State, the communities or any kind of concession own these resources. Given these arguments, distinctions or clarifications must be made on the rights of tenure on territories, resources and environment services and the role of each stakeholder who live or develop activities in Amazonian forests. Another important thing to highlight is that REDD strategies could be oriented to conservation of primary forests, but these strategies do not consider deforested areas that must be recovered by Amazonian peoples when these are reforested. In this regard, REDD could be biased. It is necessary to see the forest as a whole which includes primary and deforested forests, Amazonian communities, concessions and natural protected areas.

Preparation of Indigenous Organizations to Advocate

Amazonian indigenous organizations can strongly advocate the promotion of information dissemination, decision-making among organizations, development of positions on climate change and REDD issues and partnerships with organizations and institutions. With these measures, indigenous organizations could participate in spaces opened in regional and national levels to be part of the process and to ensure the respect of their rights. Indigenous peoples organizations, in this regard, need to utilize international instruments that protect their rights and

to evaluate national legislations to show the gaps and contradictions that these have on Amazonian culture.

In recent years, indigenous organizations have gained representation at national level by observing and asking the repeal of laws that promoted privatization of Amazonian rainforest. Subsequent protests and the ILO 169 have also increasingly given voice to indigenous peoples. A law that will facilitate the conduct of community consultations when a proposed project will affect the interests of indigenous peoples is currently being discussed in Congress so indigenous peoples now have few allies in Congress.

Endnotes

[1] Compiled from: Climate Change and Biodiversity, April 2002, Intergovernmental Panel on Climate Change; and, Stabilization of atmospheric greenhouse gases: Physical, biological and socioeconomic implications. February 1997.

[2] IPCC mentions these potential problems. Until these days there is no studies that show the increase of diseases caused by climate change, among them: malaria, dengue fever, yellow fever others viral disease.

[3] Perú is one of few South American countries that do not include in national Census ethnic variable in order to quantify indigenous peoples who live in rural and urban areas. As a result of this, national statistics is just a reference. To date, there is no consensus on how many indigenous people live in Amazonian territory.

[4] NISI, *Census of indigenous communities in the Peruvian Amazon*.

[5] According with Regional Strategy of Amazonian Biologic Diversity (2005), the 61 per cent of Peru's territory is covered by forest. The forests of the Peruvian Amazon region are distributed in forestry concessions, protected natural areas, Andean and Amazon communities. The Protected Natural Areas (PNA) coincides with part of the territory of the Amazon peoples' traditional use. The forested area occupied by the Amazon communities excluding the PNA is 27,356,400 hectares, which is equivalent to 34.9 per cent of the Peruvian Amazonia. While this area is also under threat of deforestation, only two per cent of the total deforestation is in PNAs and nine per cent in indigenous territories.

[6] Peru has a wide variety of forests that contribute to the development and welfare of society. The forest coverage in Peru is estimated at 68.7 million hectares, (eighth country with the largest forest coverage in the world and second after Brazil in Latin America), of which 92 per cent

of forest are located in the Amazon region. Their several habitats shelter more than 60 per cent of the planet's biodiversity. However, the national deforestation amounts to 150,000 hectare/year, amounting to an accumulated deforestation of 7.2 million hectares in the last decade (1990-2000). The regions with the highest level of deforestation nationwide are San Martín (18.51%) and Amazonas (13.96%). When these are put together, the total rate exceeds one million of hectares.

[7] In Spanish, Instituto Nacional de Recursos Naturales – INRENA.

[8] Aguaruna and Huambisa peoples of the provinces of Bagua and Condorcanqui in the Department of Amazonas.

[9] The World Bank (2009).

[10] According to Text Proposed of Forestry and Wild Fauna Law (2010), the concession is a title given by the State that entitles for natural resource exploitation through public auction (between 10,000 and 40,000 hectares) or public tenders (between 5,000 and 10,000 hectares). Both can be renewable term of 40 years.

[11] 1090 Decree Law was part of the legislative body issued by Executive Power in order to facilitate the implementation of the FTA between the Peruvian and USA governments. Indigenous organizations deployed a series of alliances and movements for derogate Laws that affect their territories and rights.

[12] Adapted from Text of Provision of Environmental Services Law.

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Annexes

Annex 1. Forest surface by natural región (square kilometres)

Geographic region	Natural forest	Planted forest	Total
Costa	18,700	120	18,820
Sierra	7,000	2,700	9,700
Selva	702,000	180	702,180
Total	727,700	3,000	730,000

Source: Enciclopedia Virtual "Ecología del Perú."
Available at http://www.peruecologico.com.pe/lib_c19.htm. Accessed on 18 August 2010.

Annex 2. Concessions awarded by Peruvian state

Type of concession	Number	Surface (Ha)	Region
Timber (by public bid)	171	2,871,925	Ucayali
	85	1,267,111	Madre de Dios
	34	494,668	San Martín
	48	285,661	Huánuco
	250	2,641,624	Loreto
Sub Total	588	7,560,989	
Timber (adequate)	15	256,794	Madre de Dios, San Martín, Loreto, Ucayali, Junín and Pasco
Other forest products	934	793,459	Madre de Dios
Ecotourism	25	55,412	Madre de Dios, Loreto y Ucayali
Preservation	16	423,094	Madre de Dios, Loreto y Ucayali
Reforestation	282	135,142	Madre de Dios, Pasco, Junín, Ucayali, Piura y Lima
TOTAL	1,860	9,224,890	
Peru's Surface		128,521,560	
% of Peru in concession		7.18	

Source: MINAG, 2009.

Annex 3. National system of natural areas protected by Peruvian State

Category	Total/Category	Ha/Category (Accumulated)
National Parks	11	7,821,658.03
National Sanctuaries	7	263,982.06
Historical Sanctuaries	4	41,279.38
National Reserves	11	3,279,445.25
Wild Life Refuges	2	8,591.91
Landscape Reserves	2	651,818.48
Communities Reserves	6	1,658,900.95
Protection Forests	6	389,986.99
Game Reserves	2	124,735.00
Reserve Areas	9	4,787,128.15
TOTAL	**60**	**19,027,526.20**
Peru Surface		**128,521,560.00**
% del Peru Protected		**14.80**

Source: INRENA, 2006.

Annex 4. Title deeds from Andean and Amazonian communities

Region	Total Communities	Andean Communities		Amazonian Communities	
		Number	%	Number	%
Amazonas	221	52	23.53	169	76.47
Ancash	345	345	100	0	0
Apurimac	442	442	100	0	0
Arequipa	100	100	100	0	0
Ayacucho	578	577	99.83	1	0.17
Cajamarca	109	107	98.17	2	1.83
Cusco	939	886	94.36	53	5.64
Huancavelica	565	565	100	0	0
Huanuco	266	257	96.62	9	3.,38
Ica	9	9	100	0	0
Junin	563	389	69.09	174	30.91
La Libertad	120	120	100	0	0
Lambayeque	25	25	100	0	0
Lima	287	287	100	0	0
Loreto	612	75	12.25	537	87.75
Madre de Dios	24	0	0	24	100
Moquegua	75	75	100	0	0
Pasco	188	73	38.83	115	61.17
Piura	136	136	100	0	0
Puno	1,251	1,251	100	0	0
San Martin	31	1	3.23	30	96.77
Tacna	46	46	100	0	0
Ucayali	231	0	0	231	100
Total	**7,163**	**5,818**	**81.22**	**1,345**	**18.78**

Source: Especial Project of Titled Land, 2002.

Annex 5. Principals' commitment of UNFCCC by Conference of Parties

COP	Outcomes Assessment
1995 – COP 1	Proposals started to face climate change, but no real commitment taken on emissions reduction.
1996 – COP 2	Lack of progress noted on emissions reduction.
1997 – COP 3	Parties signed Kyoto Protocol, whereby they commit to reduce emissions of the six major greenhouse gases to 1990 levels. This conference marks the start of a true global awareness on the climate change issues.
1998 – COP 4	Action Plan Adoption setting deadlines to reach agreements on proposed mechanisms in Kyoto, and policies to be implemented.
1999 – COP 5	Penalties in case commitment agreed upon in Kyoto are not fulfilled.
2000 – COP 6	Nuclear energy was excluded from Clean Development Mechanism.
2001 – COP 7	Australia, Canada, Russia and Japan avoided any type of agreement with legal consequences. Clean Development Mechanisms are introduced.
2002 – COP 8	Critics to implementation costs of Kyoto Protocol.
2003 – COP 9	Parties agreed on a 6% increase on the budget, a guide for forestation projects and launch of the Fund for the Climate Change designed to finance activities in less developed countries.
2004 – COP 10	Russia ratifies the Kyoto Protocol.
2005 – COP 11	Representatives from 180 countries get together to finally bring into action the Kyoto Protocol and start a new international debate on what will happen after the agreement expires in 2012.
2006 – COP 12	Interchange from technical experiences and MDL implementation promoted.
2007 – COP 13	Plan posed to pay developing countries for carbon value stored in their forests or REDD, since it is believed these payments may help revert deforestation and being a good alternative to relieve climate change. The most important strategy for the negotiation of a new agreement is considered as well.
2008 – COP 14	COP 13 approaches consolidated.
2010 – COP 15	A new agreement will be discussed around the climate regime replacing the Kyoto Protocol since 2012.

Annex 6. Peruvian legislation on natural resources and indigenous peoples

Sector	Peruvian Legislation	Importance	Institution
Transectoral	Article 89. Political Constitution of the Republic of Peru, 1993	- Scope: National - Impact: Peruvian Population - Amazonian communities' existence and legal status are recognized	Peruvian Government
	Law No. 27972. Organic Law of Municipalities	- Scope: Local - Impact: Indigenous peoples' settlements. - Promotes the appropriate local application of environmental management methods. - Promotes protection and preservation of the environment	
	Law No. 27867. Organic Law of Regional Governments	- Scope: Regional - Impact: Indigenous peoples' settlements, social and gender promotion and development - Grants permits, authorizations and forest concessions - Audit of compliance with environmental and forest policies - Promotes sustainable and profitable projects - Promotes biodiversity preservation	

Environmental	Law No. 28611. General Environmental Law	- Scope: National - Impact: Natural resources and indigenous peoples - States basic principles and rules to ensure a sustainable environment. There are no regulations yet	MINEN
	Legislative Decree No. 613. Code of Environment and Natural Resources	- Scope: National - Impact: Natural resources - Provides guidelines on environment preservation and protection	
	Law No. 28245. Framework Law for the National Environmental Management System	- Scope: National - Impact: Management of natural resources - Guidelines for a sustainable environmental management	
Climate Change	Law No. 28852. Private Investment in reforestation and agroforestry Promotion	- Scope: National - Impact: Forest concessions - Gives relevance to sustainable development of forest plantation	MINAG
Water and Basin Management	Law No. 29338. Water Resources Law	- Scope: National - Impact: Nationwide Basin Management, including indigenous peoples' territories - Controls the use and management of water resources and basins	NAW[1]–MINAG

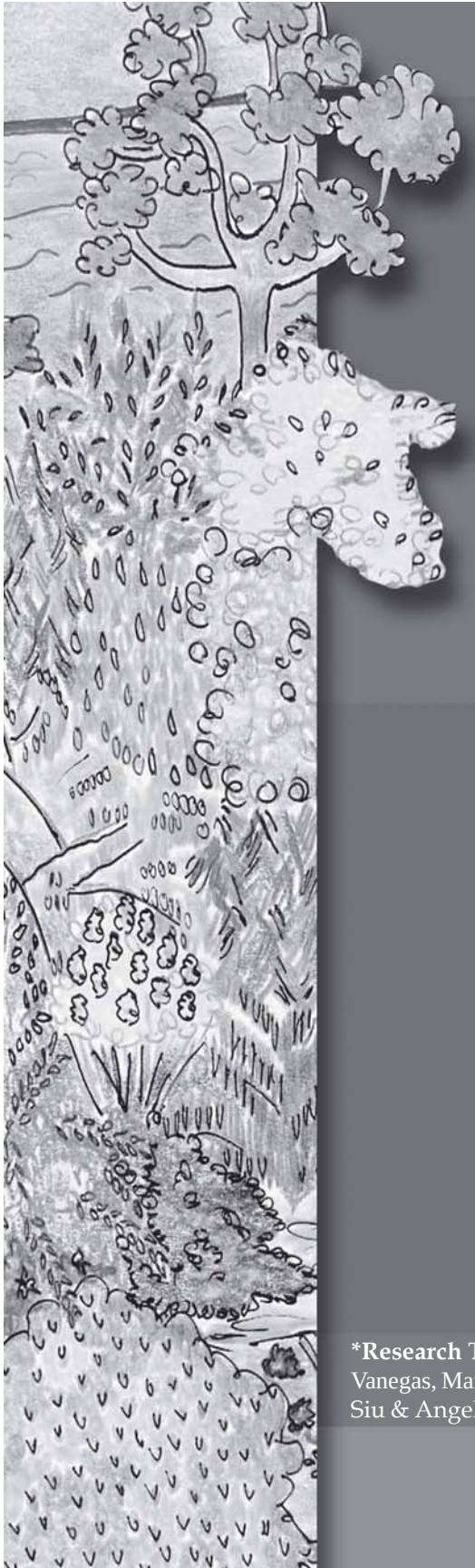
Forests and Use of natural areas of indigenous peoples	Law No. 27308. Forest and Wildlife Law	- Scope: National - Impact: Natural resources management within indigenous peoples' territories - Promotes national forest development - Promotes reforestation - Incorporation of environmental services in national projects	DFFS–MINAG
	Law No. 26834. Protected Natural Areas Law	- Scope: National - Impact: Protected natural areas, indigenous peoples and use of their territories	NSNPA[2]–MINEN
Indigenous Peoples	Law No. 22175. Indigenous Peoples and Jungle and Cloud Forest Development Law	- Scope: National - Impact: Promotion of life quality in the Amazonian region - Aims at creating an agricultural structure that contributes to the comprehensive development of the jungle regions	MINAG
	Law No. 20653. Indigenous Peoples and Agricultural Promotion in Amazonian regions Law	- Scope: National - Impact: Titling of indigenous peoples - Promotes legal recognition of Amazonian communities' territories, living them legal status. - Defines a forest resources development plan and agricultural activities that contribute to the comprehensive development and improvement of indigenous peoples' lives in the Amazonian region	MINEN

Indigenous Peoples	Law No. 27811. Protection System for Indigenous Peoples' Collective Knowledge Law	- Scope: National - Impact: Protection of indigenous peoples' culture and gender-related issues - Recognizes people and indigenous peoples' rights and powers to decide on their collective knowledge related to biological resources, and the protection of their rights on them	NIFTIP[3]
Private Investment	Law No. 26505. Law on Private Investment in the Development of Economic Activities within the National Territory and the Andean Communities' and Indigenous Peoples' Territories	- Scope: National - Impact: Promotion on private investment in natural resources, including indigenous peoples' territories - Executes assignment agreements where Andean communities and indigenous peoples have the preferential right to sustainable use of the natural resources in their common lands, duly recognized	MINEN, MINAG
Economic development	Law No 26821. Organic Law for the Sustainable Use of Natural Resources	- Scope: National - Impact: Use of natural resources in indigenous peoples' territories - Gives authority to grant rights on natural resources - Applies provisions on sustainable use of natural resources	MINAG

[1] In Spanish, Autoridad Nacional del Agua – ANA.

[2] In Spanish, Servicio Nacional de Áreas Naturales Protegidas por el Estado - SERNANP. In English, National Service of Natural Protected Areas.

[3] In Spanish, Insitituto Nacional de Defensa de la Competencia y la Propiedad Intelectual - INDECOPI. In English, National Institute of Fair Trading and Intellectual Property – NIFTIP.



6

IMPLEMENTING REDD+ IN NICARAGUA: AN INDIGENOUS PEOPLES' ANALYSIS

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BACKGROUND

Central America's biophysical characteristics, as well as the characteristics of its current ecosystem, are indications that it is predominantly a forest region. The forested area of the seven Central American countries accounts for more than 60 per cent of its surface. In 2005, only 36.5 per cent (20.6 million hectares) of land in the region retained forests, which indicates that 13.5 million hectares have been cleared. It is estimated that over the past three decades, the annual rate of deforestation reached 375 thousand hectares, or a 2.1 per cent loss of vegetative cover per year (Soto and McCarthy 2008).

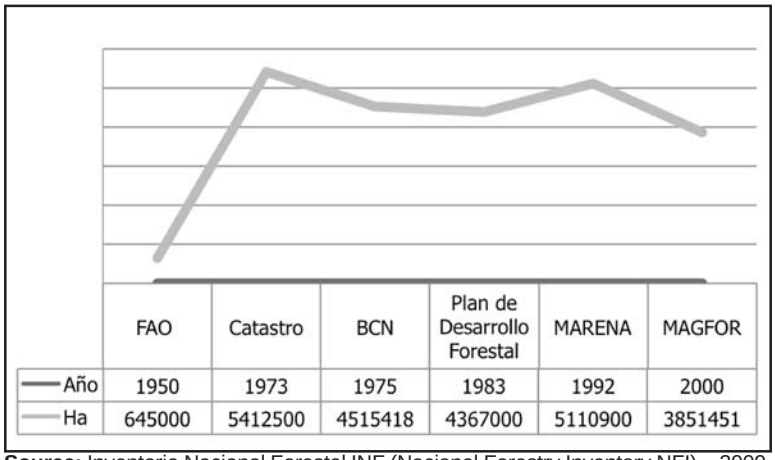
At the beginning of the 1990s, the Central American countries agreed to the Forestry Action Plan in Central America (Plan de Acción Forestal en Centroamérica: PAFT-CA), a product of regional consensus due to a common agenda on forestry issues. The Plan achieved a new dynamic in the region and allowed for the publication of the paper Forest Policies in Central America: Analysis of Constraints on the Development of Forestry.

Despite these achievements, market forces pushed Central America to give priority to economic and political sectors not fully compatible with the environment and forestry sectors. So deforestation reached levels of 416 thousand hectares in the first five years of this century, or 48 hectares per hour.[1]

For its part, Nicaragua contributes 150 thousand hectares to that deforestation process annually.[2]

Figure 1[3] (National Forest Inventory NFI-2009) refers to the massive amounts of forest lost in the country since 1950, the year of the greatest destruction of forests in the country (especially on the Caribbean coast), a product of timber exploitation by foreign companies, linked commercially with the Somoza family.

Figure 1. Estimate of deforestation between the years 1950-2000



	FAO	Catastro	BCN	Plan de Desarrollo Forestal	MARENA	MAGFOR
Año	1950	1973	1975	1983	1992	2000
Ha	645000	5412500	4515418	4367000	5110900	3851451

Source: Inventario Nacional Forestal INF (Nacional Forestry Inventory NFI) – 2009.

This figure makes clear that governmental policies did not encourage rational and sustainable management of forest resources and did not have a vision of the pine and hardwood forests as potential resources for development, but saw them rather as a hindrance. Therefore, they were given a low economic value in the domestic market despite the fact that the international market might have granted them a higher economic value. This image of forests as having little value has become so pervasive that mainstream media—radio, television and press—publish prices of meat, sugar and basic grains daily, but are unable to publish the prices of different species of wood in the domestic or international markets.

However, in 2005, forestry activity accounted for 393 million Córdoba (Córdoba Constant of 1994. This year the exchange rate was from 6.38 in January to 7 Córdobas x USD1), equivalent to 1.25 per cent of the Gross Domestic Product (GDP) and six per cent of primary sector production. While the GDP grew at an average rate of 3.06 per cent over the period from 2001 to 2005 and the primary sector grew at a rate of 2.33 per cent, the forestry sector grew at a rate of 2.81 per cent—a rate above the average growth rate of the primary sector.

Therefore, it is believed that the combined national policy approaches implemented since the 1960s have led to the advancement of the agricultural border. Faced with population displacement, the poor peasants who have been dispossessed of lands in the central and northern regions of the country due to development policies that favor the agro-industrial and monoculture sectors, have found land where they believe it is available: on Nicaragua's Caribbean Coast. On the one hand, migrants are unaware of the system of collective ownership of land that exists on this side of the country, and on the other hand, they believe the economic logic that land is more valuable without forests because livestock and agriculture generate profits in the medium and short term.

On the other hand, we see that State policies have neither considered nor respected the intrinsic traditional relationships between indigenous and Afro-descendant peoples and the biodiversity that can be found in the forests. In many cases, the government also failed to take into account the collective ownership of existing territories in the Caribbean region. For the first time in the 1980s, Nicaragua, with support from the Swedish government, made a Forest Development Plan for the country, which sought to integrate industry into the forest, but without integrating other sectors.

It was not until 1987, in the context of the Sandinista Revolution when the Autonomous Government was established in the Caribbean Coast, that the consent of these peoples was taken into account. By September 1987, the National Assembly approved Law 28 granting autonomous status to almost half the national territory. This new status remains a challenge today for the coastal peoples because this implies the ability to develop skills for the self-determination of their own development.

At the beginning of the 1990s, after 10 years of war and with a new generation of neo-liberals in government, the pressure on natural resources intensified. By 1992, the Forestry Action Plan for Nicaragua (PAF-NIC), which sought to conserve, restore and use the forest, was completed. Another attempt was made in 2005, and it found that the forestry sector is central to

development in Nicaragua. However, deforestation has continued.

The results, published under the National Forestry Inventory (2009), indicate that the forest in Nicaragua currently covers only 25 per cent of the country, equivalent to 3,254,145 hectares. Of this, 98 per cent of the area (about 3,180,466 hectares) is made up of natural forest and only two per cent are forest plantations (73,679 hectares).

It is noteworthy that 62.7 per cent of the existing forests are concentrated in Nicaragua's Caribbean regions: 19.3 per cent (628,050 hectares) in the RAAS and 71.7 per cent in the RAAN. The entirety of this wooded area is located in the territories of indigenous and Afro-descendant peoples[4] (See Figure 2).

What are We Talking About?

Nicaragua has three climate zones:

a. Tropical dry zone which includes the Pacific plate up to 500m; this zone has rainfall between 700 and 1,500mm and average annual temperature between 25°C and 30°C;

b. Subtropical transition zone which reaches the northern and central parts of the country between 500 and 1,500m; it has rainfall between 1,500 and 2,500mm and average annual temperature between 22°C and 27°C;

c. Tropical humid zone which covers the Caribbean lowland and Rio San Juan from 0 to 500 m; this zone's rainfall is between 2,500 and 5,000mm and has an average annual temperature of 30°C.

Most of the forests in Nicaragua are located in the Autonomous Regions in the Caribbean Coast (Table 1). This large rainforest region is irrigated by several large rivers and is very sparsely populated. The Wangly River (or Coco River) is the largest river in Central America; it forms the border with Honduras. The Caribbean coastline is much more sinuous than its generally straight Pacific counterpart; lagoons and deltas make it very irregular.

The large biosphere reserve in Central America, BOSAWAS, is located in the North Atlantic Autonomous Region (RAAN) with an area of 728,434 hectares. It is the largest natural rainforest north of the Amazon rainforest.

Figure 2.



Source: MARENA. http://www.marena.gob.ni/index.php?option=com_content&task=view&id=58&Itemid=409.

The climate is predominantly tropical with high temperature and high humidity. The extent of forest is estimated at 25 per cent of the country which is equivalent to about 3,254,145 hectares. Of this area, 98 per cent (about 3,180,466 ha) is natural forest and only two per cent are forest plantations (73.679 ha).

Table 1. Status of Forest Resources in Nicaragua

Area of national territory	**130,373 square kilometers (MARENA, 2007)**
Population	5,484 inhabitants
Forest cover:	3,254,145 hectares
Percentage of national territory with forest cover	24.5%
Deforestation (annually)	150,000 hectares
Authorized volume	210,720 square meters/annually
Carbon and fuel consumption per capita	1.06 cubic meters
Nationally protected areas	2.16 million hectares
Protected areas in RAAN and RAAS Autonomous Regions	1.87 million hectares

Source: PFN. Centroamérica en el límite forestal. 2005. ProARCA-IUCN and National Forest Inventory 2009.

Nicaragua has the following four forest classification: broadleaf, coniferous, mixed and mangrove. The National Forest Inventory Report indicates that the broadleaf forest is the largest occupying 87 per cent of the total forest area (about 2,760,018 ha), natural conifer forest 12 per cent (374.739 ha), mixed forest 0.5 per cent (16.789 ha) and natural mangrove forests around 0.9 per cent (28.919 ha).

The forest coverage by department and autonomous regions indicate that 62.7 per cent of forests are concentrated on the Caribbean coast, (this percentage, the RAAN has 43.4%, the RAAS has 19.3%), Jinotega has 9.3 per cent and Rio San Juan has 8.9 per cent, among others, which means that almost 80.9 per cent of the country's forests are in areas with low population density and high poverty rates.

DRIVERS OF DEFORESTATION

General

Anthropogenic intervention in forests has come largely as a result of policies promoted by governments; actions which, as we said before, favor the advance of the agricultural border—a model in which forest resources are extracted in an uncontrolled and illegal manner. This, in turn, produces a drastic change in land use. In the late 1970s, Nicaragua was a leader in the production of meat and milk in Central America; however, in 1980, the sector was devastated by the war which negatively affected the production of milk. That decade was a respite for the conservation of forests because military action did not allow loggers to enter the mountain for logging.

At the end of the war in Nicaragua in the early 1990s, the government of Violeta Barrio handed over huge tracts of land, in what were called *Development Poles*, to members of the demobilized troops—both the armed forces and those who had participated in irregular armed groups of the counterrevolution—who were definitely not prepared for forest management in these assigned areas because many of them came from a farming culture rather than a forestry culture.

An important factor in this land delivery process was that it violated the system of collective land ownership of the Indigenous and Afro-descendant peoples which is established in Nicaragua's Constitution and in Law 28 which created a Statute of Autonomy for Nicaragua's Caribbean Region in 1987. This colonization, promoted by the Barrio government, marked a new milestone in the resumption of strong migratory processes in the area following the war. Continuing today, this process puts even more pressure on forest resources.

Sustainably managing forests that still exist in the country especially within the Autonomous Regions is the biggest challenge facing the national, regional, municipal, territorial and community institutions as taking no action assumes a high risk when faced with an accelerating loss of natural forest cover. This affirms that indigenous peoples and Afro-descendant com-

munities play an integral part in this process and it will only come through the reaffirmation of their ethnic identity and culture.

The arrival of this migrant population to the Autonomous Regions entails a high rate of deforestation mainly due to livestock development and to the high consumption of firewood which is estimated nationally at 3.97 million cubic meters representing more than 55 per cent of net energy consumption in the country.[5] According to the Council of the Caribbean Coast, this area has more than 5.8 million hectares on degradation condition. Of this total, approximately 1.3 million hectares of soils are suitable for food production and agribusiness.

The estimated annual rate of change (ARC) in both the Northern and South Autonomous Caribbean Regions of the country is being quantified by the forest management program which is driven by the INAFOR through the University of the Autonomous Regions of Nicaragua's Caribbean Coast (URACCAN). Although the results have not yet been officially published, there are estimates that the ARC is 39,000 hectares per year in areas outside protected regions.

In an interview of a bakery employee in Bluefields[6], *Porfirio*, he indicated that he occasionally goes to the protected area of Rio Indio-Rio Maíz where trees are cut for charcoal which is sold in Bluefields. For this operation, he ventures into the protected area at night to avoid the military personnel guarding the area.

The rate of deforestation indicated above will be difficult to reverse if the following actions continue: rapid population growth, the creation of new settlements, the worsening poverty levels within the region and, of course, the insufficient coverage (technical and budgetary) by the national and regional bodies called upon by legal mandate to monitor forest activities especially those related to deforestation.

In that sense, the document on the Strategy of Development for the Nicaraguan Caribbean Coast indicates that between 1995 and 2005, the population in the autonomous regions was doubled

mainly by internal migration from the Central-Pacific of Nicaragua to the Caribbean of the country. This reality imposes additional pressure on land, environment, forests and basic services.[7]

In addition to the above, it should be noted that Hurricane Felix completely changed the forest physiognomy of the Caribbean. This hurricane destroyed more than 1.3 million hectares of forest, leaving about 10 million cubic meters of fallen wood available for immediate use.

This situation would have meant that national and regional authorities had been more flexible in their rules and controls in order that the community had achieved a high utilization of the fallen wood and thus have been benefited. But this did not happen because both municipalities and the central government maintained the same procedures and formalities to be observed in normal situations for forest exploitation. In this way, after three years of being on the ground, the wood of those species known as soft wood are rotten, but it is still possible to use the fallen hardwood.

Activities which Encourage and Intensify Deforestation

In the Autonomous Regions, the term *mestizo culture* has been synonymous with deforestation. This is because indigenous peoples and Afro-descendants have the strong perception that mestizos peoples are the main predators of the forest. Mestizo peasant are still seen as individuals involved in less than environmentally harmonious activities and who have a heightened belief in a capitalist standard of enrichment.

This way of life and sense of valuing assets began to permeate the belief systems of indigenous and Afro-descendant peoples to the point that it is possible to find mestizo, indigenous and Afro-descendant individuals alike who contribute to deforestation. According to the Deputy Director of the National Forestry Institute (INAFOR), Engineer Jorge Canales,

> *Indigenous peoples practice deforestation and burning in an extensive way, but there is one key element: subsistence practices are less*

intensive. They (the indigenous peoples) burn ¼ of a block per family, and this is permissible because they do not have a commercial purpose compared to the extensive practices of the mestizos (Canales 2009).

The model of the Rama peoples on the sustainable use of natural resources[8]

According to Rama people interviewed, they make use of one hectare of wood most of their life. In the first two quarters of this area, they rotate their crops (maize, cassava, malanga, musaceas) and when the soil reaches its production limit, these quarters are left fallow and not used again for two to three years while the other two quarters of the block are used; the rest remains fallow, and this cycle is repeated again and again.

As for the amount of wood used, Rama communities consume about 250 feet of wooden boards and 400 palm leaves every eight to ten years. The other method of survival of the Rama people is hunting and fishing which provide them part of their diet.

Source: Information collected by A. Balladares and D. Siu (February 2010).

In the Autonomous Regions, there is a strong tendency to change the patterns of land tenure as we experienced during the last week of June 2010 when the main road in the RAAN from the crossroad of Prinzapolka toward Sahsa was blocked by hundreds of mestizos who have settled in indigenous territories. They claim the individual title of the land as opposed to several laws that establish the collective or communal ownership of land according to indigenous tradition. This was a clear demonstration of the pressure of the agricultural border and the trend to change land use toward livestock activity.

This paper does not intend to find faults based on ethnicity, but circumstances have shown that although both Mestizos and Indigenous and Afro-descendent peoples practice slash and burn agriculture, the Mestizos do it in such a way that the change in land use is permanent and the land is used in the following order: agriculture, pasture and livestock. Indigenous and Afro-descendant peoples' land use is temporary, cyclical and rota-

tional, giving the ecosystem time for renewal. Obviously, the impact on the environment is different. A second tier of deforestation is created by logging, firewood collection, mining and road infrastructure. The last two issues are not addressed in this study.

Mestizo Communities

The arrival of the Mestizo ethnic group to Nicaragua's Caribbean Coast is associated with Nicaragua's incorporation of the territory formerly known as *Moskitia Territory* at the turn of the 19th century. Therefore, from the perspective of those who live on the coast, Mestizo people are considered a post and neocolonial culture. At present, the Mestizo ethnic group is dominant in the political and economic life of the country.

The predominance of this population at national and regional levels, combined with its economic model based on agriculture and livestock, is what has driven deforestation.

Deforestation among the Mestizo communities is more intense in non-coastal municipalities.[9] Its causes are attributed to:

- Illegal extraction of timber and firewood[10] for personal consumption and sale (the average size of a Mestizo family is 5-9 people so its demands on the forestry sector will always be greater than that of Indigenous and Afro-descendent families);
- Illegal extraction of timber for commercial sale in local markets;
- Expansion of grassland areas (for this activity, between 15 and 100 hectares of forest are cut usually every two to three years);
- Small and medium-scale shifting cultivation;
- Illegal buying and selling of land;
- Uncontrolled agricultural burning to increase soil productivity. This cultural pattern would jeopardize the implementation of any policy that focuses on payment for environmental services as a method to stop deforestation.

Photo 1. Firewood stored in Mestizo housing in Siawas, municipality of El Tortuguero, RAAS. September 09, 2009. Photo taken by Shanda Vanegas.



The amount of area deforested by a Mestizo family ranges between 15 and 100 hectares of forest, and usually this extension of land is required every two to three years.

This rate of deforestation clearly reveals that the Mestizo economy is not just meant to meet their basic needs like food and education, but also to accumulate capital in order to possess the greatest possible number of livestock.

This cultural pattern would jeopardize the implementation of any policy that focuses on payment for environmental services as a method to stop deforestation.

Source: A. Balladares & D. Siu (Notes from March 2010 for this study.

Indigenous peoples and Afro-descendant communities

Unlike the Mestizo ethnic group, indigenous and Afro-descendant peoples are in the minority in terms of population, political participation and economic development both at the national and regional levels. Their link to conservation and the

sustainable management of the environment has allowed them to live in their communities in a way that is rational and non-consumptive and which requires little circulation of money. Though many would classify this situation as an incidence of high level poverty, this lifestyle has allowed them to retain within their territories, as mentioned earlier, the last forested areas of the country according to results of the National Forestry Inventory (INF).

The culture and ways of production of indigenous and Afro-descendant peoples are traditional systems designed to preserve forests with gradual, rational and rotational usage to meet their basic needs. In these systems, they remove only the resources absolutely necessary to meet those needs.

Source: Boork, Edgar. Trustee of Kuakuail II. Interviewed on January 22, 2010, by D. Mairena.

This way of life is sometimes violated by the actions of a few corrupt leaders who have allied themselves with government officials and have been granting licenses to large foreign and domestic dealers for the use of forest resources. In the last five years, there have been cases of Indigenous people who have tried to sell collectively owned lands albeit this activity is illegal. The intervention of the current government authorities, on behalf of indigenous peoples, has stopped these attempts from going any further.

Mapiinicsa Case

According to the newspaper La Prensa, on 20 September 2009, the logging company MAPIINNICSA and indigenous territorial authorities from Awas Tingni (including Tunkusna and Tuburus communities, note the author) signed a contract through which the firm exploits 17.630 ha., which just a year ago were titled in favor of the indigenous people. The company owned by Clement Marie Ponçon, is paying $15 per cubic meter of precious wood species like mahogany, and $7 per cubic meter of other species. The interesting thing here is that the land was titled in favor of the community after an international trial in the Inter-American Court of Human Rights that took more than five years against the state of Nicaragua. This

case became a worldwide paradigm because it was the first time that an indigenous community won a case against a nation-state and claimed its rights. In previous years, the same company had *bought* land in Awas Tingni, but the General Attorney Office canceled the operation. Later, the community rented the land thus giving away the resources there. Some indigenous leaders have denounced such operations and they continue to struggle for their causes.

Another factor of deforestation identified in this study is the increase in the practice of the annual burning of grasslands and pine forests in the savannah of Puerto Cabeza (with fires that are often uncontrolled) with the goal of obtaining fresh pastures after the rains begin. The intention when they burn the grassland is that the new tender grass will attract animals to hunt and/or be good for grazing the few cattle that exist in the area.

Photo 2. Grassland fires on the savannah of Puerto Cabezas (miskitu territory), RAAN. January 22, 2010. Photo taken by Dennis Mairena A.



Other effects of forest fires are: the reduction of forested areas, economic losses, disappearance of or decrease in water resources, exposure of soil to erosion, desertification, loss of biodiversity, increase in greenhouse gases, increase in temperature, reduction of environmental and ground moisture, alterations in human life patterns and migration of local wildlife.[11]

Invasions and Displacements

We have seen that the state has no ability to apply the law to those engaged in forest burning and deforestation. Many ranchers and farmers who violate the laws have gone unpunished and this lack of strict implementation of the law has further accelerated the severity of cases to such an extent that they have caused the displacement of Indigenous communities.

In meetings involving the Territorial Government of Rama, the Community Board of Tic Tic Kanu and Mestizo settlers who have arrived in the area, there are continuous discussions about the issue of boundaries between communities, when in fact, the settlers are invading communal lands of the Rama people. A more critical case is that of the Punta de Aguila (Eagle Point) community where Mestizo settlers have displaced several Indigenous families from their cultivated lands to the point of causing physical injury to one of them. The municipal authorities have filed complaints with the National Police and the Public Ministry, but these have shown no ability to respond solely based on the rights of Indigenous Peoples.

Some members of the Rama community have expressed:

> *we have the title to our territory, but we feel threatened by Mestizo peoples; we cannot move freely in our forests; the areas where our natural medicines are extracted have been turned into pastures; we cannot take a tree to sell it in Bluefields City when we need some money because a family member is sick.*

This situation makes us wonder: Are the indigenous communities the owners of their own territory? Are these territories inalienable, descriptive and indefeasible? Are the indigenous peoples not the ancestral owners of these territories?

Some communities like Tasba Pouny in the RAAS have used the police to cope with these circumstances, allowing them to

regulate the entry of settlers and to reduce the illegal extraction of natural resources within their territories. Some respondents still believe that the results of the presence of the security forces, police and army are still not entirely satisfactory.

Source: Information compiled by Balladares, A., and Siu, Danny. February 2010.

The scenario described above about invasion, displacement, migration, slowness or inability of authorities to deal with issues was taken up by the current government of National Unity which was created during the last week of August 2010. Within the national army, an ecological battalion composed of 700 soldiers was created. Its mission is to protect the natural areas of forests against deforestation, migration and the incursion of illegal loggers. It seems, then, that the conservation of forest reserve areas has become a matter of national security. We must wait for time to tell us the results.

Effects of Deforestation

According to authors like Koopen and Holdridge,[12] the relative humidity in an area within the humid tropics (specifically in the case of the Caribbean regions) can reach up to 90 per cent during the month of July; its temperature can range from 22 to 30 degrees Celsius, and precipitation ranges between 4000 to 4500mm.

These figures have now been altered due to deforestation; studies published today by IUCN estimate that by 2010, temperatures will have risen from 1.5 to 1.9 degrees Celsius above what they were in 1990; precipitation will have changed to the point that severe flooding will have started and; the relative humidity will have increased thereby causing hydrological destabilization.

Regardless of ethnicity, religion, color and sex, individuals all experience the effects of deforestation on climate.

According to the National Research Institute for Development (INIDE), municipalities are classified as coastal and offshore. In the particular case of indigenous and Afro-descendant

territories, most of these are located in coastal areas, both in the RAAN and the RAAS, and have a close connection to forests, grasslands, pit lands, wetlands, mangroves and fisheries.

From this logic, it is possible to begin to differentiate between the effects produced by deforestation in each ecosystem.

Photo 3. Affected area by burning of forests in mestizo settlement in indigenous communal lands. Bilwi Road-Sumubila. Photo by D. Mairena. April 13, 2010.



In non-coastal areas, the major impacts of deforestation are:

- The ground is bare and exposed to erosion;
- Loss of soil fertility; loss of chemical elements in the soil as a result of leaching (each time the productivity performance is lower);
- Eco-systemic imbalance;
- Drought in major sub-watersheds and micro-watersheds;

- Loss of flora and fauna;
- Increased poverty;
- Shortage of quality drinking water;
- Increase of poverty levels;
- Increased intestinal and skin diseases.

In coastal zones, the principal effects are:

- Sedimentation that adversely affect corals and reefs;
- Closure (product of sedimentation) of the main waterway communication between communities;
- Flooding of the main sub-watersheds and micro-watersheds;
- Loss of products grown based on traditional and cultural criteria on the shores of the sub-watersheds and micro-watersheds;[13]
- Loss of vegetal species with medicinal properties;
- Decrease in productivity of fisheries;
- Loss of cultural identity due to a break in the links that exist between life and the environment;
- Limited access to forest resources to meet basic needs in and out of the home;
- Increased poverty;
- Increased intestinal diseases due to the poor quality of drinking water.

In addition to these effects, there are those directly related to abiotic factors (climate, soil, rainfall and humidity).

Without a doubt, the aforementioned effects are being felt throughout the country and the Caribbean regions. Arresting the impacts of these conditions becomes a challenge for the authorities, who, through their policies[14] have led to the development of the forestry sector as well as defense, environmental protection, climate change and risk management. Now the Autonomous Regional Government will need to create specific

mechanisms and objectives for adaptation according to the context of each territory without undermining cultural, traditional and legal systems as well as indigenous peoples' rights.

LEGAL FRAMEWORK FOR THE IMPLEMENTATION OF REDD+ IN THE CARIBBEAN AUTONOMOUS REGIONS

General

The development of Nicaragua's legal framework from 1992 to 1999 was made part of a reconstruction process of technical and material capacity of state agencies tied to forests (MARENA, INAFOR, MAGFOR). Such reconstruction was part of comprehensive measures for conservation and responsible consumption, and it was the first step to creating indicators for good management and processes for voluntary forestry certification.

In Nicaragua, it could be argued that the legal framework for forestry is wide enough to introduce the topic of REDD+. However, it should ensure the safeguarding of the rights of indigenous peoples and Afro-descendant communities permanently.[15]

In that sense, Law 28 on the status of autonomy and law 445 on indigenous territories and collective rights, should be the frameworks for all initiatives of REDD+.

The interviewee F. Buitrago has a similar view, saying that "the creation of a new legal framework for the implementation of REDD is unnecessary." He noted that the important thing is to understand that REDD will involve all state agencies and therefore, its governance should be decentralized. F. Buitrago stated that:

> *this issue can not only be managed by MARENA, but must engage the Ministry of Health (MOH), the Ministry of Education (MINED), and MAGFOR in addition to MARENA; but it is not enough to have just the efforts of one ministry–they need to work together to legislate in a comprehensive manner.*

In order to provide evidence for the above comments of F. Buitrago[16] it is necessary to cite a few articles of the various

environmental laws which confirm that it is not necessary to create a new legal framework for the implementation of REDD+ in the country:

Law 217: General Law of the Environment and Natural Resources

As set out in Law 217, MARENA has the power to:

morally recognize natural or legal persons and institutions at the forefront of protecting the Environmental Natural Resources, and it may also establish and implement a policy of economic incentives and benefits targeted at those who contribute through their investments to the protection, improvement and restoration of the environment (Articles 38 and 39 of Law 217).

Law 462: Law of Conservation, Promotion and Sustainable Development of the Forestry Sector

INAFOR's power also exists:

to prohibit the cutting, removal or destruction of trees in those species and areas that are endangered, those that are registered in the national list and those in the international conventions ratified by the country, with the exception of trees from plantations that are registered with the National Forestry Registry (Article 19, Law 462).

Similarly:

the State shall promote and encourage the restoration of forests through protection and conservation and establish rules to ensure the restoration of conservation areas. Forest Restoration Areas are those that are not covered by forest vegetation and which have natural conditions which make them suitable for forest use, guided by the aim of conservation and preservation (Article 28, Law 462).

Regarding the Production of Oxygen and Carbon Sequestration, it seeks to:

create the Fund to encourage forest owners to opt for the preservation and management of the forest in order to produce oxygen for humanity. The Fund will be supplied with resources that the Government of the Republic negotiates in the international arena, within the carbon sequestration and environmental preservation programs.

This matter shall be regulated (Article 29, Law 462).

It is up to MAGFOR (Article 6, Law 262) as a State institution:

to establish an incentive policy which has the basic objective of promoting forestry development, promoting the incorporation of natural or legal persons in activities of appropriate management of forest resources, and involving them in increasing the national forest cover and the reversal of the deforestation process suffered by the country (Article 37, Law 462).

Throughout this process of creating legislation and management tools, it appears better to speak about Payment for Environmental Services rather than carbon market as an economic alternative to benefit landowners in forested areas. Actually this has been the political position of Nicaragua during the UNFCCC negotiation sessions.

National Environmental and Climate Change Strategy

On April 6, 2010, the government of Nicaragua announced the National Environmental and Climate Change Strategy and Action Plan. This strategy emerged after much discussion between MARENA, Ministry of Education, Ministry of Health, INAFOR and others, but the public was not adequately consulted about it. The overall national strategy on climate change is based on the recognition of the rights of Mother Earth; it opts for the sale of environmental services; it calls attention to the ecological debt of developed countries and it rejects the carbon market. The action plan has a strong focus on education and environmental awareness to the public. This strategy does not mention anything on REDD+.

Development Strategy for Nicaragua's Caribbean Coast

The strategy for the development of Nicaragua's Caribbean Coast is a new management and guidance tool for the region, one whose main purpose is developing an economic, political and social reality for restoring the rights of the inhabitants of the autonomous regions of the Caribbean. An alternative to the

economic development in the region is the rational use of forest resources through a program of use that combines income for oxygen, forest management and sustainable industrialization in modules of 20,000 ha per year that include reforestation.

The strategic plan, through its program of defense and environmental protection, climate change and risk management, further justifies what was previously stated, revealing that environmental degradation is a matter of emergency and national security. It is therefore urgent to activate a sustained effort of the state, using public forces if necessary, to stop environmental degradation in the Bosawas Biosphere Reserve and Indio-Maiz River, the Cola Blanca, Cerro Bolivia and Wawashang Nature Reserves, for the protection of RAMSAR sites, coastal wetlands, and vulnerable ecosystems such as Miskitu Cays, Pearl Cays and Corn Island.

Given this regional development strategy, one problem that arises is the case of administrative procedures, which as we shall see, needs to be adjusted to actual needs and abandon procedures that prevent the use of these resources by their owners. Most indigenous communities in the Autonomous Regions of Nicaragua's Caribbean Coast use the forest as a source of plant and animal foods and therefore it is closely related to food security and livelihood. Few communities perceive the forest as a source of generating foreign exchange and capital growth for attaining wealth as perceived in Western societies. However, as a way of overcoming poverty and addressing social and economic impacts, Nicaragua's government has designed the Caribbean Coast Strategy which allows the rational exploitation of the forest by the community.

Most of those interviewed for this study perceive that through these political lines, financial resources have been provided to investors dedicated to buying and selling timber. As a result, the community receives little economic gain. These two cases illustrate such condition.

Access to forest resources

The RAAS Case is one in which the company IBAN DUSA (Medlar Tree) has approved a General Management Plan to use 16 forest species, but due to lack of money to pay all taxes to the municipality and to MARENA and INAFOR, the community has chosen to sell the mahogany and granadillo wood to an investor in the timber industry. These investors are always hovering in the area because they know the financial weaknesses of the communities.

This problem can be attributed to legislations on forest that do not provide a viable option for communities to use their forest resources. For example, a law could establish a moratorium on taxes in order to develop the market of forest resources. According to interviews, the law should establish a mechanism that would allow low-income communities to have access to a small-scale forestry permit so they can pay their taxes after the sale of wood and not before removing the trees.

Source: (Information collected by A. Balladares and D. Siu, February 2010).

The RAAN Case

As coastal peoples, we see that we have resources such as red and white wood, but we cannot extract these because administrative procedures are very expensive. Once prepared, the management and extraction plan enters a slow process for approval; meanwhile the wood is lost—it rots (this refers to timber felled by Hurricane Felix).

My plan is to extract 4,000 cubic meters, and I had it approved since two years ago, but the wood had already deteriorated...it is also expensive. I don't have money to get new permits so it becomes necessary to extract the wood illegally.

Given this situation, the large loggers come and propose to us that they will pay and get the permits for taking the wood. The cost that the municipality office requires is a high percentage per board foot plus a dollar per cubic meter to approve the permit. In total, I need $4,000...where would I get that if I hadn't extracted the wood?

The authorities need to be more flexible in facilitating permits so that we will be able to sell the small amount of (fallen) wood that we have (in the forest).

Source: Interview with E. Boork, in Kuakuail II–Tasba Pri. Dennis Mairena.

Just as the administrative procedures are difficult to fulfill, it seems that these are not designed to allow the legal extraction of timber by the communities; such arduous procedures and expensive fees have left no choice for community members but to illegally extract fallen trees.

Referring to this illegality, the documentary video Emergency in Bosawas: The Struggle of the Mayangnas (2010), presents the state's inability to deal with the problem. It also indicates that in order to bring order to the illegal system of extraction, the judiciary needs to be strengthened. Currently, both the police and the judicial system in Bonanza, RAAN, have low capacity for action to stop illegal loggers and migrants. For example, the above mentioned video signals the lack of a Public Prosecutor in the area and this makes it impossible to bring criminal charges against illegal loggers.

In these circumstances, the development model of the Caribbean Coast needs to overcome these problems by establishing a link between traditional and state systems. It needs to revitalize and strengthen the community government and balance this with the environment. Otherwise, it will carry major consequences that will threaten the survival of indigenous peoples and will lead to an increase in the already high rates of extreme poverty.

Education and Natural Resources

The inclusion of indigenous peoples, principally women and children, in the national laws and policies.

One of the great weaknesses we found in the laws is that they do not promote educational policies on conservation of natural resources with the young population. The only direct mention that we found in this investigation on this issue is Article 37 of the National Policy of Forestry Development of Nicaragua which states in Article 37 that:

> *The State shall establish a policy of incentives to promote forestry development, promote the incorporation of natural persons or bodies in appropriate management activities of forest resources and ensure their participation in the increase of the national forest mass and the reversal of deforestation the country suffers. The Ministry of Education, Culture and Sports, will include in the subject of practices and activities that each student, from the third grade of primary school to the fifth grade in high school, will plant four trees, whether fruit, lumber or ornamental, preferably close to watershed or any sources of water or river banks during the year of study.*

Despite this provision, curriculum reforms are still needed to improve environmental education for children of Nicaragua's Caribbean Coast. Some community leaders argued that education is deficient in indigenous communities and they perceive this situation as a hindrance to the development of these communities. In some sense, this idea is paradoxical because the indigenous communities are the only people on the planet who have been able to establish a balance between human needs and the capacity of ecosystems even if this economic model is based on early systems such as hunting and gathering. In short, the creation of educational programs for indigenous peoples requires special attention in order to preserve this conservation culture that indigenous peoples have inherited.

Civil Society and Climate Change

The newly created Nicaraguan National Alliance on Climate Change (ANNCC), which brings together recognized environmental NGOs in the country, started in the second half of 2010 a series of consultations with civil society partners on the National Environmental Strategy and Climate Change. The intention of this process is to deliver the comments to the government on the above strategy, and perhaps, induce policy changes. This consultation process, however, came too late because the strategy was already issued; therefore, the government may ignore any suggestion for changes.

All these efforts show a collective and common interest on the issue of climate change, but there should be means of proper communication and coordination.

It seems that Nicaragua's legal framework provides sufficient possibilities for the implementation of the REDD mechanism and the assurance of the rights of indigenous and Afrodescendant peoples concerning territoriality and collective rights.

Despite this, a critical element for the protection of forests is related to the flow of finances and the final destination of those funds. In Nicaragua, the central government, through the Ministry of Finance and Public Credit, transferred 25 per cent of the taxes collected on the sale of timber to the Indigenous Territories which have approved licenses and permits for the use of natural resources. According to some interviewees from the communities, there is no transparent, fair or standard set of rules guiding access, timing and distribution of those benefits in the communities; therefore, they fear that the same problems might occur if these aspects are not considered when promoting negotiations under the REDD+ initiatives.

Case: Transfer of Funds

The interviews yielded a number of aspects of violations of the rights of indigenous peoples related to forestry laws. Among these, we will refer to the economic aspect of forestry laws related to the tax distribution system. While the rule of Nicaragua gives 25 per cent of taxes to the communities in which licenses or permits are approved for use of natural resources, this mechanism lacks instruments to ensure access and transparent distribution of those benefits in communities. Some community leaders expressed that the Ministry of Finance and Public Credit neither gives the amount of money established in the law nor does it deliver this amount on the deadline set. These irregularities significantly affect the development of the communities.

In addition, respondents commented that the problem with the transfer of funds to communities hinges on two issues: the first is the lack of capacity for social control over the funds, and the second is the lack of internal instruments in Indigenous communities and territories to ensure good social investment. A classic example to illustrate this point is that corrupt community leaders hold 25 per cent of these currency transfers from the Ministry of Finance and Public Credit for their personal needs.

During the case study, respondents said that the leaders end up living in the cities of Bilwi, Bluefields, Bonanza or Rosita, and they do not provide any more information to the community.

It is absolutely necessary to create legal instruments to promote social investment through a community development model which neither obviates traditional customs nor facilitates the buying and selling process of timber and other forest resources for the capitalists.

A. Alemán, in an interview, reinforced this idea. He pointed out that prior to negotiations and coordination of legal instruments, it will be necessary to define the working mechanism through specific stages in order to monitor and assess the potential impacts of REDD+.

REDD+ AS A MECHANISM FOR DEVELOPMENT?

To answer this question positively, it is necessary to integrate several factors in order to maintain a balance between the forest mass, the peoples, their culture, and their rights. The task of creating specific mechanisms for this is not easy, especially where illegal extraction of forest resources is a source of income for hundreds of Caribbean families and when the institutional capacity of law enforcement is weak.

Regardless of the mechanism developed by the authorities, it must be proportional, i.e., it must control illegal logging and restore degraded areas, but without affecting the household economy. Therefore, it is necessary to seek an alternative that encourages the owner of the forest to continue the hard labor necessary to preserve the environment for the good of mankind, but at the same time it allows that individual to financially support his/her family.

As a third world country, Nicaragua is not part of the big polluters, instead it possesses and preserves the forests that capture CO2 emission from others. In view of this, the measures of encouraging conservation of the forests are the only way to ensure that this inheritance will exist for future generations.

Therefore, the incentives to protect the forest must be greater than the income people would receive through the extraction of timber.

As reported by D. Mairena in the article titled "The agricultural frontier mentality arrives for coastal politicians" (an article which was widely circulated by e-mail), one valid alternative for stopping deforestation is REDD+; REDD+ could become an additional mechanism of development as long as the mechanisms respect the rights of indigenous peoples and forest owners. It is clear that we need to know the progress of negotiations on REDD+ within the discussions on climate change (UNFCCC) and it is also necessary to continue the analysis of the experiences of the pilot projects of the World Bank and UNDP in order to make the necessary adjustments to ensure the protection of rights of indigenous peoples to their territories and resources.

Many indigenous peoples in the world are afraid of REDD because of the risks it presents to their rights, to their lands, territories and resources. But in Nicaragua's Autonomous Regions of the Caribbean, there is a comparative advantage over other countries in negotiating REDD mechanisms in such a way as to secure the rights of indigenous peoples because we have the Statute of Autonomy (Law 28) and the Law on Indigenous Territories (Law 445) (Mairena 2010).

The current government of Nicaragua has been taking a very cautious position in respect to the REDD mechanisms. While it is true that Nicaragua is among the first 15 countries selected to pilot REDD based on the plans of the World Bank, the government has not decided what to do about it. In almost all of the countries selected, there have been problems related to the consultation process and the process of free, prior and informed consent. In many of the countries with REDD pilot programs, the World Bank is being questioned due to the lack of transparency in the decision-making processes, especially when those decisions affect indigenous peoples' territories.

Advance of the REDD Process in Nicaragua

In Nicaragua, more than 60 per cent of emissions of greenhouse gases (three times the world average and twice the Latin American average) are caused by the change of land use, i.e., deforestation and forest degradation.[17] There are five factors that cause this situation: extreme poverty; an increasingly frequent and strong incidence of extreme natural phenomena; the expansion of the agricultural frontier; lack of state capacity to implement the law; the lack of an international framework to provide positive incentives for reducing deforestation and forest degradation.[18]

At the 13th Conference of the Parties (COP 13) of the United Nations Framework Convention on Climate Change (UNFCCC), decision 2/CP.13 establishes that "parties should propose a system of policy approaches and positive incentives to reduce emissions from deforestation and forest degradation and the role of conservation, sustainable forest management, and improvement of forest carbon stocks." This led to the creation of the so-called Forest Carbon Partnership Facilities (FCPF). This is in addition to national efforts to raise the standard of living in rural populations, which must take into account the rights of indigenous peoples and local communities and traditional knowledge. It should be designed to cope with the consequences associated with the development.

In Central America, the proposals of the following countries were approved for inclusion in the World Bank's REDD project: Panama, Costa Rica, Nicaragua, El Salvador, Honduras and Guatemala.[19]

By 2008, Nicaragua was reported to be among Independent Forest Monitoring's global projects.[20]

In this regard, in Nicaragua the R-PIN has been approved and the World Bank has allocated US$200,000. Once Nicaragua submits the R-package to the FCPF, it will be able to receive an additional $3.2 million for the demonstrative phase. Up to this moment, the government has met 80 per cent of the contractual conditions to get the disbursement; now it just needs to sign the grant agreement with the World Bank.

Nowadays the Ministry of Environment (MARENA) is developing the first draft of R-PP (Readiness Preparation Proposal) to be submitted to FCPF in September, to be analyzed in the PC (Participant Committee) in November 2010. This first R-PP draft is being prepared with the financial support of the Technical German Cooperation (MASRENACE-GTZ Project). Once the government has the $200,000, it will start the detailed formulation of R-PP, followed by massive consultation process.

On the other hand, the government has conducted a video conference with UN-REDD to analyze the conditions to work with in Nicaragua and to know about funding. In this regard, UN-REDD expressed that it does not have enough financial resources at this moment, but it expects to have it. However, the first step must be made by Nicaragua, sending a letter of interest to the political committee of UN-REDD, indicating its interest in being a member. This action is under the responsibility of MARENA and the Presidency of the Republic.

Moreover, this study found that the present government of Nicaragua has requested to the Central America Regional Project REDD-CCAD Unit, under the Commission on Environment and Development (CCAD), to provide more information about the process that will be carried out on REDD in Nicaragua which may take after the lead of El Salvador. The interest of Nicaragua is that the Central American regional effort does not hamper the definition of the national strategy for avoided deforestation.

In order to define the national strategy on avoided deforestation in a participatory way, Nicaragua has established a coordination mechanism with three levels of decision making and consultation. In Level I, the participants are: the Minister of MAGFOR, MARENA, INAFOR, INETER, the Presidents of both Regional Councils of the Autonomous Regions and the Secretary of Natural Resources (SERENA) of the RAAN and RAAS.

In Level II, the institutional arrangements on REDD Platform comprise a technical staff from MARENA, INAFOR, MAGFOR, Regional Governments and relevant organizations of the International Technical Cooperation such as GTZ, FAO, UNDP, CATIE. It is expected that this level would be the tech-

nical body that specializes in the REDD issue which should prepare the ToR (Terms of Reference) and technical review, determine the R-PP, track the REDD strategy process and provide appropriate recommendations to Level I.

Finally, Level III involves the National Forestry Commission (CONAFOR), Forest Governance Committees (GOFO), including the Cabinets of Citizen Participation (GPC), indigenous communities and forest owners.

The current government of National Unity must work with these bodies along the following phases:

First Stage: Preparation of a National Institutional Framework through capacity building:

The definition of a National Institutional Framework includes the generation of capacities of indigenous peoples and communities, nongovernmental organizations and institutions in the process of adjusting the existing legal framework.

Second Stage: Implementation of Pilot Projects:

This comprises the implementation of pilot projects aimed at the appropriate Institutional Framework.

Third Stage: Full Implementation of the REDD Mechanism:

The full implementation of the REDD mechanism where the medium-term goal is to stop deforestation and the long-term goal is to avoid it altogether.

N. Zepeda[21] indicates that "one of the main activities that needs to be implemented before REDD mechanism is the characterization and determination of the influences of each area, as well as checking if there is presence of the Official Institutions in the area and which laws are related to existing problems."

For the implementation of the REDD mechanism, it is necessary to understand processes, methodology, and specifications and to see if these are feasible. It is also necessary to take action because there is a forest framework and an environmental framework, but the application of both is complex, in part due to the lack of information.

This lack of information is reflected in the comment made by E. Mairena (interview in October 2009) when Mairena said,

Already in the year 2009, CADPI began a project of case studies in the RAAN and RAAS on climate change and indigenous peoples; and CADPI also has a project that demonstrates leadership training on climate change and REDD as a mechanism of territorial management in Tasba Pri; for its part, the GTZ is beginning on this issue in Nicaragua; and it is assumed that Nicaragua is included in the World Bank's REDD program, though from the outside, it is not very clear what is happening between INAFOR and MARENA with respect to REDD mechanism.

In this regard, the authorities of the autonomous regions of Nicaragua's Caribbean Coast are holding meetings with representatives of International NGOs and some agencies of the UN system, indigenous organizations and regional universities in order to design its own regional strategy on climate change. This strategy seeks to strengthen the regional autonomy process and its institutions. There are serious commitments to launch a broad consultation process that will begin in September 2010.

In addition, the regional authorities of the RAAN and RAAS have begun talks with MARENA to perform an extensive process of consultation specifically on the topic of REDD+. MARENA has shown great political will to implement the rights of indigenous peoples' free, prior and informed consent, and avoid the experiences of the governments of Panama and Guyana where both UN-REDD and the World Bank have been strongly questioned by the lack of transparency in the processes of consultation with indigenous peoples on REDD.

Advantages Related to REDD

The Nicaraguan government has a serious problem with regard to the registration of land ownership and tenure to such an extent that it is still possible to perceive the effects of the process of confiscating property and of reassigning land during the Sandinista Revolution as well as the handing over of properties known as People's Property Area, which became Workers' Property Area in 1990. Much of the problem is due to the weak National System of Land Registry.

Some of the current agricultural problems have come to affect the communal property of indigenous peoples of Nicaragua's Caribbean coast. This situation can largely be overcome by Law 28 which provides for a Statute of Autonomy for the Autonomous Regions of the Atlantic Coast of Nicaragua and by Law 445 which relates to the rule of communal property of indigenous peoples. In both laws, the rights of indigenous peoples over their territories is clearly established, but they are also tarnished by the recognition of land reform titles released before 1987, the year that the Statute of Autonomy was established.

Thus, with the Statute of Autonomy and the demarcation and titling process under way, Nicaragua and specifically, indigenous peoples and Afro-descendant communities (Creole and Garifuna) are at an advantage compared to other countries and peoples in ensuring the rights of indigenous peoples for those REDD processes.

On the Caribbean Coast of Nicaragua, most of the land that still has forested areas is collectively owned by indigenous and Afro-descendant peoples, and therefore, analyzing their direct participation in REDD programs will be valuable.

Indigenous Peoples Linked to REDD

Indigenous peoples as political subjects

There is consensus among the various nongovernmental and governmental entities and research centers in stating that the indigenous peoples and Afro-descendants of the Autonomous Regions should be considered relevant actors within the REDD mechanism since they own most of the forests of the country. They must also be the main beneficiaries of any program relating to forest management due to the way in which they have cared for the legacy of their ancestors for centuries.

The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) should be the platform for the implementation of REDD policies because this statement acknowledges the rights and activities of indigenous peoples. It should be indigenous peoples themselves who must decide whether or not they

want to participate in the REDD mechanism as a way of exercising their right to self-determination. The government or of any other body should not dictate the establishment of the REDD processes. Indigenous peoples must have the power of decision-making, including the power to waive the application of this mechanism within their communities if they will be affected or at risk of being affected.

However, in practice, the implementation of the REDD mechanism is based on the operation of the market. The current rate of deforestation on lands controlled by indigenous peoples and communities puts them at a disadvantage. Because the rate of deforestation is low, there may not be a great willingness on the part of contributing countries to pay more for the conservation of these lands. The implementation of this mechanism with a market view might have a negative effect on conservation.

SWOT analysis which identifies the advantages and disadvantages of linking the REDD program to indigenous peoples

In this section, the SWOT analysis can provide a legal and technical interpretation of the events that make the various non-governmental and governmental entities and research centers state that the main players in Nicaragua to be involved in the REDD mechanism should be the indigenous peoples of the Autonomous Regions.

Table 2. The SWOT Analysis

15 titled and organized Indigenous territories, the equivalent of 22,478 square kilometers (Near to 18% of the national territory)	Opportunities for the sale of environmental services (Carbon Sequestration and Hydro-Environmental Services)
The land's high potential for forestry	The region's technical and agro-ecological potential to develop projects of forest production of timber and energy
Important remnants of forest	A government willing to promote the rational use of forest resources through a program that capture carbon and the oxygen production
The existence of high quality forest seed banks	The design of environmental programs directed at providing adaptability, prevention and mitigation actions on climate change
Comprehensive environmental legal framework	
Internal community regulation	
Community development plans that take into account cases of payment for environmental services	
Not enough budget for the development and conservation of forestry	Pressure from squatters for the illegal logging of timber and firewood
No community coordination strong enough to resume the development and conservation of the forestry sector	Inefficient inter-institutional coordination for the control of forestry activities in the region
A lack of budget does not allow for other options to offer peasant farmers who degrade the forest	Damage to forests and plantations by natural phenomena such as hurricanes
	High levels of organization in illegal timber trade networks

According to the Deputy of INAFOR, Engineer Jorge Canales, "Implementation of the REDD mechanism should avoid asymmetries, and this requires capacity building both for Mestizo producers and for indigenous peoples, exactly 50 per cent for each."

With this proposal, it is understood that by pushing REDD programs within Indigenous territories, they will not necessarily exclude the Mestizo population. Therefore, it is sufficient to clearly identify potential areas to promote REDD programs, and thus, to meet the potential direct and indirect beneficiaries.

INDIGENOUS TERRITORIES WITH POTENTIAL FOR THE APPLICATION OF REDD

The entirety of the forested area of the Autonomous Regions has the potential to work under the REDD mechanism, but first there should be: full and effective participation of indigenous and Afro-descendant peoples; free, prior and informed consent; and the application of the UNDRIP.

In Nicaragua, there are not yet any REDD areas. Before deciding on those areas, various technical and diagnostic studies should be conducted, and consultations should be done in order to define them. Many aspects still need to be determined including: the issue of carbon sales; the design of national action and strategy plans; security or the study of country risk; opportunity costs; and above all, it will be necessary to have results that demonstrate that the incentives are higher than the costs of deforestation opportunities, with all their collateral benefits.[22]

The Proyecto Corazón (Heart Project)[23] was specifically noted by J. Gutierrez (2010) in an interview as a receiving area for REDD. While the process of demarcation and titling of Indigenous territories continues, it is hoped that all of these territories will be able to participate in the REDD mechanism. Up to date, the titled territories are:

Table 3. Summary of Indigenous and Afro-descendant Territories with Titles by year[24]

Year	Territories	Communities	Area (Sq. Km)
2007	5	85	5,756.01
2008	2	17	3,147.01
2009	5	50	6,415.80
2009	3	62	7,160.17
TOTAL	15	214	22,478.98

The area of 22.5 thousand sq kilometers represents almost 18 per cent of the national territory. This evolution in the demarcation and titling process is a good signal that the State will take into account the indigenous peoples rights in any matter related to REDD+ or another initiative. The complete information of this summary can be found in the Annexes.

An important limitation of this process is that the state leaves to the people the task of negotiating overlaps in territories. Such overlaps may be between neighbors, communities or neighbor territories. This apparent laxity of the state shows its failure to conduct or facilitate negotiation processes.

But then, another question arises here: will the state allow communities to solve the case of third parties in their territory? During the roadblock last June 2010, it was interesting to note that the indigenous peoples of the two autonomous regions were silent and they seemed to accept that the government resolved for them the claim of the third party. Only the Mayangnas reacted with a press statement reaffirming their rights to communal territories. What if the government submitted an offer for individual titling?

These concerns emphasize the need to define criteria for any initiative of REDD+ based on the right approach of indigenous peoples over all things.

The specific selection of a potential territory can be made based on the following technical and legal criteria:

1. Legality of land tenure;
2. Representativeness and legitimacy of the territorial authorities;
3. Strong institutional capacity which is organized and well-structured, one with instruments and mechanisms of social control and administration to ensure transparency and accountability to prevent damage or undercutting of legitimacy of readers;
4. Significantly large area or of high importance within its territory;
5. Technical and agro-ecological potential for the development of projects on forestry production of timber and energy;
6. Potential to stop the illegal and accelerated logging of timber and fuel;
7. Reduction of the impact of agricultural border areas;
8. High potential for the sale of environmental services (Carbon fixation and Hydro-Environmental Services).

Based on these criteria, there are nine potential areas suitable for REDD to work. A total of 132 communities are located in the interior of this geographical area, for a total of 55,907 people and more than eight protected areas of diverse categories of management.

Although there are 15 (titled) territories, some people interviewed identified specific locations to prioritize within these territories so as to have a higher impact during possible implementation:

In the case of the North Atlantic Autonomous Region (RAAN) of Nicaragua, the following areas were mentioned: Mayangna Sauni As; Sikilta; Tasba Raya.

Among the potential communities of RAAS that still conserve forest resources are the following: Karawala, Makantaka, Betania, la Estrella, Wuaula Tikni, Pajara Tikni, Caño Wilson, Tasba Pouny, Orinoco, la Fe, Río Maíz, Río Indio and Great

Town. The communities in the northern part of RAAS have weaknesses in terms of mass mobilization which is very different from existing communities in the south where there are groups of trained and equipped volunteer rangers for guidance, mobilization and communication.

It should be noted that the specific areas which were identified within the territories are located in strategic zones that not only have significant wooded areas, but are also located in sub-watersheds and micro-watersheds of high socio-economic and cultural sensitivity. These zones need to be preserved and restored to maintain the stability of the ecosystem.

Ultimately, the choice of locations must be based on factors such as the updating of mapping, governance mechanisms, knowledge of the causes of deforestation and the definition of indicators—what these are and what their specific weight is.

Other Actors in REDD Programs

In addition to the indigenous peoples, other actors must exist in the REDD programs due to the power that government laws and standards confer on these actors.

In Table 4, the range of different positions of REDD actors is summarized (at the discretion of the persons interviewed).

Table 4. Actors within the REDD program

Communities	GRAAN	International NGOs
MARENA	CRAAN	Churches
INAFOR	SERENA	UNDP
Regional Universities BICU and URACCAN	MAGFOR	Cooperatives de productores
Territorial Organizations	FAO	National NGOs
	Municipalities	Civil Society
	Army and Police	Young Professionals

Groups: The actors in column (A) were mentioned with more frequency (at least five times); the actors in column (B) were mentioned with medium frequency (at least three times) and the actors in column (C) were mentioned in minor frequency (one or two times).

According to E. Mairena[25] "the development and implementation of this mechanism of REDD requires integration into local organizations that work on the issue of forest resources and climate change" who will no doubt be of technical support to indigenous peoples as key players.

For F. Buitrago,[26] the actors in column A should range from producers in territories where the forests are located, to the people who cut wood, the owners of the lands and forests, as well as those from the municipalities where there are forests.

In general, there is a definite consensus that women, young adults and children should be involved in the processes of REDD as they are active parts of indigenous communities and peoples.

A. Alemán[27] agrees that "... it is necessary to take into account the gender perspective and the integration of young people within this mechanism."

This is the same feeling that Zepeda expressed, saying that, "in fact, it may promote women's and youth organizations, and really, in many indigenous communities and peoples, they do not even make this distinction and have women and youth representatives; it is also important to take the children into account."

Within these processes, it is important to involve the organizations and/or blocks of indigenous territorial communities—local and national organizations that know the culture and are aware of how to work with indigenous peoples. It is important to consider the experience that some local and national organizations have with indigenous peoples and environmental programs in starting the mechanism.

Column B highlights the role played by the state authorities such as MARENA, INFOR, MAGFOR and the National Assembly—authorities which design environmental and forestry regulations and are the main facilitators in ensuring that communities participate in this process and that their rights are preserved.

Buitrago opines that "the government must intervene, not as a beneficiary, but as an entity committed to expanding the economic capacity of indigenous peoples in the management of subsidies." The main obstacle in this regard is the lack of financial resources and low technical capacity that state institutions have in confronting such a complex issue. They do not have adequate material, human and technical resources so their capacity for action is very limited.

Municipalities can also be REDD players, as can regional and national research centers, which can help strengthen regional authorities through these REDD processes. It is hoped that international cooperation will become the main source of funding.

In general, interview respondents have expressed that the programs, projects and NGOs under column C of Table 4 have had very little connection to forest management and territorial negotiations so far.

When universities were mentioned, all interview respondents considered them relevant actors for the extension, research, generation of knowledge and education, as a dialectical process for capacity building. Universities are currently offering graduate and specialized courses, many of them aimed at raising the capacity of community leaders and/or technicians in forest areas. Universities are recognized to have enormous opportunity and capacity to generate and strengthen the human capital of their own territories.

By analyzing the flow of the process, the administrative processing and the bureaucratic apparatus related to forestry, this study determined that one of the high risks—and one that arises repeatedly related to the use, management and exploitation of forests—is "corruption." During the study, respondents repeatedly indicated that cases of corruption occur in both the formal structures as well as in regional, territorial and community structures. It is a means of overcoming the obstacles that the same system of laws established for the control and management of forests. Clearly then, there is a need to strengthen the organizational structures with the establishment of mechanisms to ensure transparency in resource management and capacity build-

ing of social control and enforcement. In turn, this could be accompanied by the development of an information process (promotion and dissemination of information about the REDD processes) within the communities.

MONITORING AND EVALUATION MECHANISMS FOR REDD PROGRAMS

One of the hottest topics being discussed at international conferences about REDD, under the UNFCCC negotiations, has been the forms of monitoring and evaluating the capacity of forests to sequester carbon. This involves the preservation of a wooded area which is precisely what provides the capacity for carbon capture and oxygen production. It has been proposed that the monitoring be done both by the department purchasing the carbon sequestration service and by the forest owner so it could be done physically in the field or via satellite.

The actors of these mechanisms will then be autonomous regional entities, municipalities, regional authorities and indigenous communities. They should build capacity for implementing official monitoring while operating a parallel monitoring by indigenous peoples or NGOs.

It is vital that the community organization acquire this capacity so that their proposals and/or demands are heard, and so it is not the government that guides the process; i.e., there must be open and equitable participation.

RISKS THAT REDD PRESENTS TO INDIGENOUS PEOPLES

So far, there has been no consultation on REDD processes among indigenous communities and peoples or with institutions of the autonomous regions, civil society and research institutes. If the government continues to formulate its national strategy on climate change and REDD policy without consulting indigenous and Afro-descendant peoples, it could put indigenous peoples at a high risk of having their collective rights violated.

The system of autonomy enjoyed in the Caribbean Coast of Nicaragua has enabled indigenous and Afro-descendant peoples to build elements that facilitate greater participation of citizens through community boards, city councils, regional boards and regional councils. In the latter case, there is representation from 45 regional councilors—one from each region of RAAN and RAAS—who should represent the interests of the territories and communities of the Caribbean Coast. However, it is necessary to consider that the participation in communities through the elders' council has been part of their ancestral culture. Furthermore, it is important that the national government should systematically and accurately convey information to actors concerned. Currently, there are few means of communication which convey information in a transparent and effective way.

To ensure that this exercise is done with the right approach, it must ensure the right to free, prior and informed consent.

Conclusions

1. The environmental legal framework of Nicaragua is strong, but its structure for the enforcement is weak. The lack of technical resources, low capacity of human resources, and the issue of corruption are the factors that create weakness;
2. Human rights and indigenous peoples' rights, the UNDRIP and the ILO 169, must be the legal umbrella for any kind of program in indigenous territories;

3. So far, the current government has been timidly working alone on the definition of environmental strategy and climate change, and even REDD+. It seems to be afraid to openly face the participation of all national sectors in order to widen its perspective;
4. The presence of mestizos and their production model in indigenous territories is a challenge to overcome; but REDD+ could be an interesting mechanism to stop deforestation, and in parallel to improve land use, grassland management and other measures. The regional governments with the central government should apply the law as written but they should also provide incentives to indigenous and mestizos;
5. Through the REDD+ program, it is possible to improve the lives of the owners of the territories with important wooded areas due to their forestry potential and high biodiversity;
6. In order to bring the real owners of the forests into the REDD program, it will be necessary to work on building human, technical and financial capacity—mainly those types related to the implementation of social auditing tools;
7. There are sufficient legal tools which only require adjustment for the topic of REDD+ starting from the communities as active agents in the process, reaching to the governmental institutions of the regional government and ministerial delegations in the Autonomous Regions and extending through universities, local NGOs and those who make the decisions;
8. For the development and monitoring of policies, there must be an Autonomous Regional Committee to oversee this process; the committee may be made up of individuals or businesses (not consumers) who work in a way that is fair, equitable and based on the potential of the soils;
9. There is interest on the part of the communities in gaining access to these potential benefits, but it is necessary to first work on the institutional strengthening of the

communal and territorial government's system for preventing corruption and for achieving the creation of social, economic and environmental development processes for these communities and territories.

10. The process for the implementation of REDD is making great strides in the international field through the concerted interest each geopolitical and economic group or block takes. At the community level, progress is slow and has very little participation; therefore, the central government—with support from the autonomous regional governments—must increase the participation of territorial governments and initiate a process of Dissemination, Promotion and Education on climate change and REDD+. Access to the centers of discussion, information and advocacy is required nationally, as well as internationally;
11. REDD should promote non-sectoral, non-partisan political participation with a focus on law and autonomy in order to allow real participation without interference from partisan political interests.

RECOMMENDATIONS

1. One of the major problems that indigenous peoples are exposed to within the REDD mechanism is that this mechanism is not yet well-defined. If indigenous peoples access and sign agreements without everything being defined, they may be at a disadvantage in terms of the application of those mechanisms for the short and medium term. They may fall into something restrictive and find themselves unable to make use of their natural resources. However, if they are the owners of natural resources and have a title to the property, the REDD mechanism can serve to strengthen territorial organizations—provided that a structure is defined in which indigenous peoples are integrated—and the process of

regional autonomy can also be strengthened at the regional, territorial and community levels;

2. Both Autonomous Regions in Nicaragua must work closely in order to define their own climate change strategy that could come part of the national strategy. To do this, they should establish the creation of a baseline data on environmental and climate change;
3. The autonomous regional governments should also be prepared to negotiate with the central government for the management of the funds they can get for REDD+ initiatives. There are sectors that propose that this issue is a nationwide topic, but considering the self-determination (autonomy) and the existence of the forest mass in this area, the funds should come to the forest owner;
4. Indigenous peoples should use this new REDD mechanism to advance their organization by putting all types of organizations into operation the way that the Council of Elders and Community and Territorial Boards are. "It is through this mechanism that they can create the concept of administration and management in a stable manner, in an office in the community, and not from the briefcase of one person,"[28] which is what usually occurs.
5. In order for indigenous peoples to strengthen their rights, they must be present in the negotiations process, either by pressing that the information they are provided has to be correct, true and not manipulated, or by participating directly in the negotiation process; i.e., there must representatives of the communities and municipalities physically present in the room where negotiations are carried out. It is through the information obtained by the representatives that indigenous peoples assume an important role in community organizations where they can channel clear and timely information to their communities;
6. The REDD mechanism should support actions that promote indigenous peoples' rights; in particular, trainings should be done in addition to providing necessary tools to each community;

7. National and Regional authorities should not only provide communities with relevant information on REDD+ but also offer them the correct tools and instruments for the development of the REDD+ process;
8. To enable indigenous peoples to enforce their rights, they must first be clear about their rights within the territory because they are often not recognized. If they are clear about their rights, it is possible that these will provide the capacity to evaluate actions to be undertaken when faced with a REDD+ mechanism, which would otherwise be complex.

Specific recommendations to ensure the recognition of the rights of indigenous peoples

1. In order for the rights of indigenous peoples to be recognized, it is necessary that they exert their right to autonomy, and although this right is recognized by the state, the struggle for decentralization and autonomous regional capacity building should continue;
2. Indigenous peoples should request that the informational and skill-building trainings are conducted at their place of origin and in their language;
3. There should be a unified position of indigenous peoples.

Recommendations for strengthening the rights of indigenous peoples in the REDD processes

1. In general, through the REDD+ mechanism, there exists the possibility that indigenous peoples strengthen their rights if they incorporate resources that enhance their participation into the mechanism and promote methods that are used for communication and transmission of information;
2. If the REDD+ mechanism provides access to economic resources, it is possible that communities and indigenous peoples will find themselves in the position of taking

steps to mitigate climate change and that the community would not be affected;

3. It is fundamental that indigenous peoples are able to strengthen their organizations and that they solicit support from other organizations in order to work together. But this is not possible unless their property status has been secured.

ENDNOTES

[1] 2. Rodriguez Quiróz, Jorge Eduardo. Centroamérica en el límite forestal: desafíos para la implementación de las políticas forestales en el Itsmo. Edit. Gabriela Hernandez. San José, Costa Rica. IUCN. Regional Office for Central America, 2005. 172 p. "Central America in the forest edge: challenges for the implementation of forest policies in the Isthmus."

[2] Id.

[3] The report presents national data that is not broken down by region, but it is believed that almost 50 per cent of the area belongs to the Nicaragua's Caribbean regions.

[4] Nicaragua is located in the middle of the isthmus of Central America. It is the largest country in Central America with an area of 130,373.47 km², and is located between latitudes 10º and 15º 45' north and between longitudes 79º 30' and 80º west; it is bordered by Honduras in the North, the Atlantic Ocean in the East, Costa Rica in the South and the Pacific Ocean in the West. (MARENA 2007)

[5] ProArca-IUCN, 2005. p. 113.

[6] Interview with *Porfirio*, by D. Mairena. Bluefields. December 12, 2009.

[7] El Caribe de Nicaragua en Ruta Hacia el Desarrollo Humano. Estrategia de la Costa Caribe Nicaraguense. Consejo de la Costa Caribe. Managua. Nicaragua.

[8] The indigenous Rama are located exclusively in the Atlantic Coast of Nicaragua. Most of them live in the South Atlantic Autonomous Region (RAAS), in an island near the city of Bluefields, and a small population of these people is located in the municipality of San Juan de Nicaragua in the department of Rio San Juan. The village of Rama is the smallest population in the country comprising about 1,600 inhabitants. The Rama people are distributed over a wide territory that includes an island and the mainland south east of Nicaragua which they consider

their ancestral territory and which have become customary use for farming, hunting, fishing, gathering and forest resource use commercial building boats, paddles, fishing gear, housing. The majority of the Rama peoples are living on the island of Rama Cay of 22 hectares. It is located in the Bluefields Lagoon, 15 miles south of the city of Bluefields. They live close to the sea and rivers.

[9] Information gathered by A. Balladares and D. Siu. February 2010.

[10] In the case of the RAAS, a study conducted by fifth year Agroforestry Engineering students from URACCAN University/Bluefields Campus (2009) estimates the annual demand for wood for fuel at 180,467 m^3, which could amount to approximately 1,071 ha/year. This amount is only for areas outside of protected areas, which indicates the figure would increase when combined with the demands of those living in protected areas.

[11] Miranda, Guadalupe. Deforestation. http://www.monografias.com/trabajos14/deforestacion/deforestacion.shtml#AGENTES.

[12] Information published in their book *Characteristics of Humid Tropical Areas*.

[13] The Water Law sets certain guidelines regarding planting on the banks of rivers, lakes and ponds...however, the culture of some peoples and the lack of institutional resources makes it difficult to control this activity. The population is always looking for riverbanks to do their planting but they do this on a smaller scale.

[14] Government policy is clearly stated within the development strategy for the Caribbean coast of Nicaragua, which reads verbatim, "We seek a rational use of this resource through a program for use that combines oxygen revenue, forest management and sustainable industrialization in modules of 20,000 ha per year which includes the reforestation" and therefore incorporating REDD into this program will not present any difficulties.

[15] The majority of interview respondents do not know all the content and focus of environmental laws, but laws which do seem to dominate and are quite frequently mentioned are: Law 462, relating to the conservation, promotion and sustainable development of the forestry sector; regulation of Law 462 issued by Decree 73-2003; Law 217 – General law about the environment and natural resources, adopted March 27, 1996 and published in the Gazette no. 105 of June 6, 1996; Law 647, Law on Amendments and additions to the aforementioned Law 217; Decree 01–2007 Regulations of Nicaragua's protected areas; Decree 09-96. Law of closure for cutting, harvesting and marketing of forest resources, penal code (Act 641) of Nicaragua, municipal law, coastal law, water law, decree 76-2006 systems of environmental evaluation. Law 28 Statute of Autonomy of Nicaragua's Atlantic Autonomous Regions; Law 445, on

communal lands; climate change strategy; sustainable development policies of forestry in Nicaragua. Law 612, law of reform and additions to act 290, law of organization, jurisdiction and procedure of the executive power. Decree 104–2005 rules of procedures for the establishment, acquisition and application of incentives for forestry development in the law of conservation, promotion and sustainable development of the forestry sector Law 462; Decree 106–2005, provisions regulating forest concession; Decree 37-98 measures to prevent forest fires; Administrative Resolution 81-2007, administrative arrangements for the sustainable forest management of broadleaved forests, conifers, plantations and farms. According to the compilation of the current legal framework in Nicaragua, while it is true that the forestry issue is well founded, there are still gaps in the issue of climate change and REDD+ and REDD++, and this is logical because the topic is new and there are still many unknowns and uncertainties in this regard.

[16] Interview by M. R. López. October 2010.

[17] INAFOR. (Managua. Nicaragua). 2009.

[18] Summary of a series of interviews conducted by Orlando Lacayo, CIPAD research assistant in Bilwi, carried out October 20–25, 2009 for purposes of this study. More specific reference is made below.

[19] Carbon Finance Unit–WB. Forest Carbon Partnership Facility. Washington DC. April 2009. It is also possible to consult Forest Peoples Programme. Rights, forest and climate briefing *Moving the goal posts? Accountability failures of the World Bank´s Forest Carbon Partnership Facility (FCPF*). UK. October 2009. 8.

[20] Global Witness. Building Confidence in REDD. *Monitoring Beyond Carbon. Executive Summary.* Washington, DC. October 2009. 5.

[21] Zepeda, N. Interviewed October 2009.

[22] Initiatives like POSAF, Agricultural Estates (MAGFOR) are good examples of how these incentives work.

[23] The trans-boundary Biosphere Reserve Project "Heart of the Mesoamerican Biological Corridor" seeks to protect the Bosawas Biosphere Reserve and the Rio Platano Reserve, in Nicaragua and Honduras respectively.

[24] Source: Attorney General's Office-Vice quartermaster property. 30 Augusto 2010. A press release on April 30, 2010, mention the new titling of indigenous territories: *Wangki Twi-Tasba Raya, Prinzu Awala and Wangki Maya* are the three new titling Miskitu indigenous territories in the Caribbean Coast of Nicaragua. Carlos Alemán Cunningham, president of the National Commission for Demarcation and Titling (CONADETI) and chairman of the RAAN Regional Council explained that these three indigenous territories are being finalized for certification of the municipality of Waspam and half the town of Prinzapolka.

[25] Mairena, E. interviewed October, 2009.

[26] Buitrago, F. interviewed October 2009.

[27] Alemán, A. interviewed October 2009.

[28] Sergio Sánchez, Rainforest Alliance in Nicaragua.

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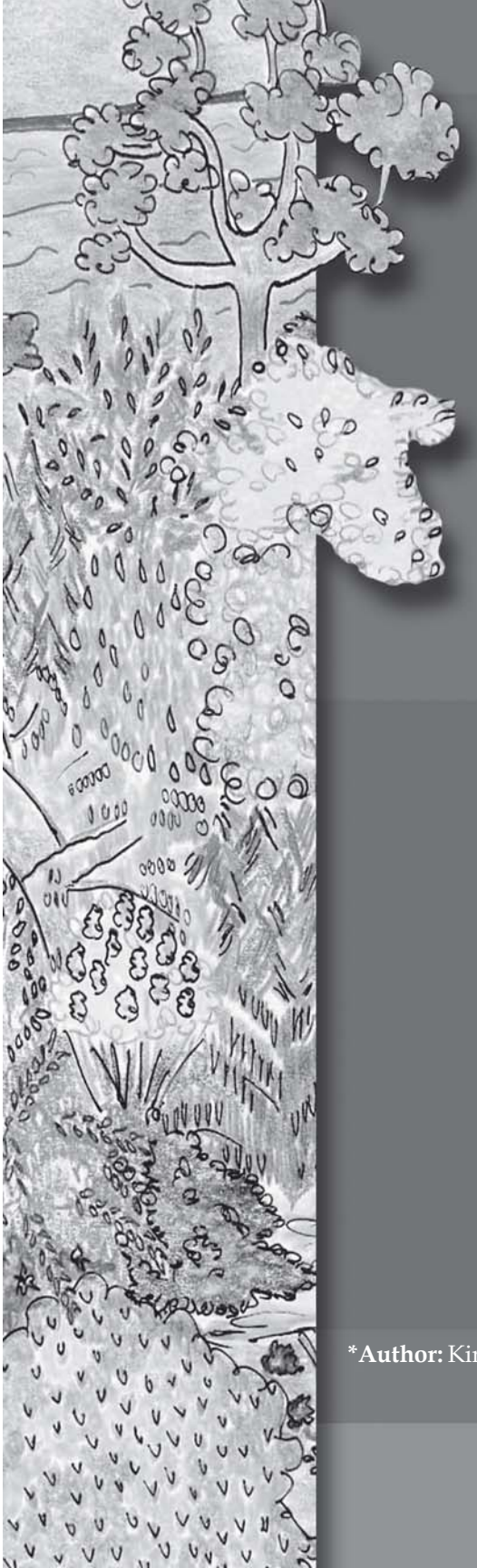
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Annex

List of Interview Respondents

Name of Respondent	Related Institution
Eileen Mairena C.	Institute of Research and Development Nitlapan–UCA
Sergio Sánchez	Rainforest Alliance
Alejandro Alemán	Humbolt Center
Jorge Canales	INAFOR
Norma Zepeda	Institute for Democracy and Development (IPADE)
Fabio Buitrago	German Technical Cooperation Service-DED
Jader Guzmán	Ministry of Forestry Agriculture
Luis Lezama	Vice President of AFORAAS (Forestry Association of RAAS).
Hector Canller Brooks	Technician from UGA of Bluefields
Ronny Manuel López Valeriano	Owner of a cabinetmaking workshop
Fabio Hooker Smith	Regional Government Planner RAAS
Karl Tinkam	Haulover Community
Rojas Carlos	Regional Councilor/Tasbapaunie
Jorge Siu	Owner of a cabinetmaking workshop
Santiago Thomas	Territorial President of Rama Kriol
Troy Thomas	Técnico INAFOR RAAS
Romel Spelman	Municipal Delegate INAFOR–Mouth of Rio Grande
Donovan Joiner	Forestry Regent RAAS
Álvaro Montiel	Municipal Delegate INAFOR–La Cruz of Rio Grande
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Javier Gutierres	MARENA–REDD Unit

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Maria Concepción Silva	Director of Project Climate Change/ Dutch Red Cross mcsilva@cruzrojaholandesa.org Tel: 22650186
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Roger Rocha	SERENA / Field Technician



7

REDD+ IN KENYA: AN INDIGENOUS PEOPLES' PERSPECTIVE

By
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INTRODUCTION

Background

Tebtebba,[1] in partnership with local organizations in eight countries, is implementing the Climate and Forest Initiative 2009 Project entitled "Ensuring the Effective Participation of Indigenous Peoples in Global and National REDD Processes." The project is funded by the Norwegian Agency for Development Cooperation (NORAD). The project has two major components: Education and awareness-raising and advocacy and research. The research component is being undertaken at two levels: a Policy and Program Analysis at the national level in eight different countries composed of Nicaragua, Peru, Kenya, Cameroon, Vietnam, Indonesia, Philippines and Nepal; and case studies at the community level in three demonstration sites which are Nicaragua, Kenya and Indonesia.

In Kenya, the project is being implemented by Mainyoito Pastoralists Integrated Development Organization (MPIDO), an indigenous pastoralist's organization for human rights and development. The research report therefore presents the findings and recommendations from the national policy and program analysis phase of the project. The findings documented here would eventually form part of the background information for the third component of the research project which is a case study of an indigenous people's managed forest—Naimina Enkiyio Forest—in Narok South District, Southern Kenya.

General and Specific Objectives

The general objective of the research is to generate data and information that will:

- Support indigenous peoples' effective participation in REDD[2] processes (at local, national, regional and global levels), including the development of a REDD architecture that can effectively contribute to meet the objectives of the UNFCCC and the post-2012 global climate regime; and ii) Illustrate and promote indigenous peoples' strategies on sustainable forest resource management and enhancement of carbon stocks.

The Specific objectives for the Policy and Program Analysis research include:

1. To gather and present data on the drivers of deforestation and existing national laws and policies on forests, land tenure, indigenous peoples and their rights, climate change and REDD;
2. To present and analyze the processes and mechanisms of designing, implementing, monitoring and evaluating REDD and private stakeholders' programs, activities and initiatives that directly affect indigenous peoples and their forests;
3. To identify issues and challenges on the REDD programs that affect indigenous peoples and their rights.

Research Methodology and Conceptual Framework

Methodology

The research utilized various data gathering techniques including archival study, interviews, focused group discussions, field observations and assessments to maximize on the benefits of triangulation of data collected from all the methods and sources. The researcher conducted a number of interviews with

government officials, civil society representatives, indigenous peoples' representatives and other professionals knowledgeable in the question under study. Consultative and discussion forums at the community, district and national levels with indigenous peoples were conducted to have a glimpse of the indigenous peoples' perspective in the whole question of climate change, REDD and rights. Participation in government seminar-workshops equally provided opportunities for networking and partnership, access to relevant literature materials and discussions with key players in this field.

Field visits to indigenous peoples' managed forests were conducted and participant observations, besides focused group discussions and interviews, were incorporated in data collection. Finally, participation in global processes and exchange visits including the UNFCCC negotiations under the umbrella of the International Indigenous Peoples' Forum on Climate Change (IIPFCC), and research workshops with other country researchers conducting similar research work, enhanced opportunities for cross-continental learning among indigenous peoples, access to contemporary data and literature on climate change and REDD; and familiarization with the intricacies of global and international negotiation processes.

Conceptual Framework

The research conceptual framework invokes both the human rights and the ecosystem-based approaches within the broader framework of participatory action research. Key elements inherent in these approaches include: recognition of people as key actors in all development initiatives that concern their livelihoods and hence contemplate effective participation to monitor both processes and outcomes; and, the interrelatedness of the human cultural diversity with the ecosystem.

Rights-based approach (RBA)

The human rights-based approach provides an excellent opportunity for analysis of human rights claims of rights holders and the human rights obligations of duty bearers. While recognizing the critical value of other international human rights

instruments and agreements, the research, informed by the project's focus on indigenous peoples, draws immensely from the human rights principles enshrined in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). The recognition of the links between the enjoyment of human rights and environmental protection, broadly speaking, has been growing within the UN, government, civil society and other sectors for several decades, starting with the 1972 Stockholm Declaration (Sensi 2007). While there is no consensus on the definition or form of a rights based approach (RBAs), it can, at the minimum, be understood as integrating rights, norms, standards, and principles into policy, planning, implementation, and outcomes assessment to help ensure that conservation practice respects rights in all cases, and support their further realization where possible (CIFOR and IUCN 2009).

According to the Office of the High Commissioner for Human Rights (UN OHCHR's) RBA guidelines, "a human rights-based approach...premise that a country cannot achieve sustainable progress without recognizing human rights principles (especially universality) as core program of governance...the concepts of good governance and human rights are mutually reinforcing..." (UN OHCR 2006, 16, 10). To be effective then, RBAs must account for and focus on improving the governance systems through which the approach is being carried out. RBAs may also provide a stronger foundation for incorporating human wellbeing concerns by recognizing that doing so is a matter of obligation. This is the thought informing the integration of local people through participation, community-based and decentralized natural resource management regimes, for doing so enhances conservation outcomes.

It is argued that a RBA is an improvement of the often criticized participatory and decentralized approaches on the ground that they "engage with people only at a superficial level, and that conservation costs and benefits are not evenly distributed within and across communities, as power differential can lead to elite capture" (Thomas 1996, 13). Thus, instrumental approaches alone may be insufficient to guarantee the people's wellbeing as a matter of obligation, and in addressing the rights not only of communities, but also of individuals and vulnerable

groups within communities. RBAs can, in principle, better ensure that basic human rights are respected though not entirely independent of instrumentally-driven approaches (Thomas 1996).

The rights contemplated in an RBA encompasses a vast array of potentially relevant rights, recognized in: treaties and declarations of the UN (Annex 1; for relevant treaties to Kenya and REDD); regional human rights instruments, national constitutions, law and regulation, often forming the basis for the implementation of International law; customary law and norms and practices, which may or may not be recognized as legal rights by the states; and multilateral environmental agreements such as the Convention on Biological Diversity (CBD). While this is not a rights instrument per se, it includes social standards. These rights could broadly be grouped into *procedural* and *substantive rights*.

Some of the relevant *procedural rights* include: information, participation in decision making and access to justice. Relevant *substantive rights* may include but not limited to: life, privacy, health, culture and religion, freedom from hunger, freedom from all forms of discrimination, right to a healthy and safe environment, indigenous peoples rights to maintaining traditional ways of life, free prior and informed consent, self representation through their own institutions, freedom to exercise customary law and rights of redress for infringements (Thomas 1996).

Although the human rights framework typically focuses on individual rights holders, these concepts have since been improved to include collective rights/group or communal rights. Strengthening collective land tenure rights can provide incentives and support (customary and new) community institutions for effective local resource management even within the context of REDD+. Perhaps the importance of the UNDRIP as the primary basis for implementing RBA with regard to indigenous peoples is best captured by the words of Victoria Tauli-Corpuz, the former Chairperson of the United Nations Permanent Forum on Indigenous Issues:

> *This (is) the only Declaration in the UN which was drafted with rights holders themselves, the indigenous peoples. We see this as a strong Declaration which embodies the most important rights; we*

and our ancestors have long fought for our right of self-determination, our rights to own and control our lands, territories and resources, our right to free, prior and informed consent, among others… This is a Declaration which forms the opening phrase of the UN Charter We the peoples…meaningful for the more than 370 million indigenous persons all over the world.

Ecosystem-based Approach

Climate change is a rapidly increasing stress on ecosystems. While ecosystems are generally more carbon dense and biologically more diverse in their natural state, the degradation of many ecosystems is significantly reducing their carbon storage and sequestration capacity leading to increases in emissions of greenhouse gases and loss of biodiversity at the genetic, species and ecosystem level. Ecosystem services contribute to economic wellbeing and associated development goals such as MDGs (Millennium Development Goals) in two major ways: through contributions to the generation of income and material goods and through the reduction of potential costs of adverse impacts of climate change.

The Millennium Ecosystem Assessment (2003) defines ecosystems services as "the benefits people derive from ecosystems including *provisioning services* such as food and fuel wood; *regulating services* such as regulation of water, climate or erosion; and *cultural services* such as recreational, spiritual or religious services" (MEA 2003, 21). Ecosystems are directly linked to incomes, food security and water availability that are basic for life. These ecosystems services therefore directly influence all components of human wellbeing, thereby influencing the security of livelihoods of people living in the vicinity. Forests are critical components of these ecosystems.

Tropical forests which cover less than 10 per cent of the world's land area are very important providers of ecosystem services at local, regional and global levels. The livelihoods of 250 million to one billion people depend on forest products including traditional and modern medicine especially so in the developing world (Byron and Arnold 1999). For many local communities, tropical forests have a spiritual and religious value,

and ecosystem changes can affect cultural identity and social stability (Ramakrishnan 2007). It is argued that loss of ecosystems services impacts directly on institutions at all levels from household, local community, national and international (Hein et al. 2006; Maler 2008).

Conserving natural ecosystems and restoring degraded ecosystems is therefore essential for the overall goals of the UNFCCC because ecosystems play a key role in the global carbon cycle and in adapting to climate change while at the same time providing a wide range of ecosystems services that are essential for human well-being. It follows then that any adaptation and mitigation efforts aimed at alleviating the ravaging effects of climate change such as REDD would be more meaningful when integrated to reflect the ecosystem nature of our world.

Research Context

International Discourse on Climate Change

There is general global recognition that climate change constitutes the greatest environmental challenge facing the world in this century. This recognition is echoed in the November 2007 IPCC Fourth Assessment Report (AR4) which states that "warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level." This report presented incontrovertible evidence that the global climate is changing because of human activities. The effects of climate change occur at all levels—local, regional and global—and have potential to disrupt the earth's ecological systems with serious negative consequences on livelihoods systems and overall human development.

The negative impacts of climate change, though global in scale, vary across and within countries reflecting their geographical conditions, level of development, and socio-cultural orientation among other variables. Notwithstanding these variations, there is almost universal consensus that climate change will affect the poorest members of society and the poorest societies

more than the more economically advanced on the basis of the latter's ability to adapt to climate change by their sheer wealth.

Many ecosystems, including tropical forests, are likely to be affected this century by unprecedented combination of climate associated disturbances (like flooding, drought, wildfire, insects and other global change drivers), land use change, pollution and overexploitation of resources. While these events may not be disasters in themselves, the combination of vulnerable and ill-prepared communities exposed to natural hazards precipitates disaster (IUCN 2009). Forests play a crucial role in the lives of many of the poor on the planet as well as forest-dependent indigenous peoples. Many of the countries that account for the highest percentage of global forest cover are also among the poorest in the world. Forests are home to 300 million people of the world with at least 100 million being indigenous peoples who are almost entirely dependent on forests for a living. Another 800 million rural people who live in or around tropical forests and savannas rely on forests for fuel, food or subsistence income

The role of tropical forests in mitigating climate change, through carbon storage, has been recognized and incorporated in international agreements and policy instruments. Afforestation and reforestation, including CDM (Clean Development Mechanism), for instance, are under the Kyoto Protocol and most recently, deforestation is taken up under Reduction of Emissions from Deforestation and Forest Degradation (REDD+). The links between mitigation/adaptation and tropical forests are twofold. First, tropical forests are vulnerable to climate change, and people living in forests are highly dependent on forest goods and services and are vulnerable to forest changes both socially and economically. Second, tropical forests deliver ecosystem services that are vital for people beyond the forest worldwide such as global vulnerability to climate change. Tropical forests therefore need to adapt or be adapted to because they are vulnerable to climate change; and tropical forests are needed for mitigation and adaptation, because they can help to reduce human vulnerability. Every year, more than 13 million hectares of the world's forests are lost. Greenhouse gas emissions from deforestation, forest degradation and the associated land-use

change are greater than the total emissions from the European Union; they are also more than all the cars, trucks, planes and ships in the world combined. The damage caused by deforestation is not limited to greenhouse gas emissions but also includes a range of other social, economic and environmental impacts (IWG–IFG 2009).[3]

Through the United Nations Framework Convention on Climate Change (UNFCCC), countries are working to avoid "dangerous anthropogenic interference with the climate system" and to do so within the context of sustainable socio-economic development (IWG-IFG 2009). Tropical ecosystems in semi-arid areas, for example, are very sensitive to changes in rainfall, which does affect vegetation productivity and plant survival. Tropical dry forests are likely to be affected more by drought and fires. Prolonging the dry season (a consequence of climate change) would prolong desiccation, making the forest system more exposed and sensitive to fires. Many scientists are concerned that the adaptive capacity of forests will not be sufficient to adapt to unprecedented rates of climate change (Gitay et al. 2002). Because of these, current management or conservation practices should integrate climate change threats and aim at reducing vulnerabilities.

National Context

Kenya is a climate dependent country. The REDD+ mechanism in the country should be seen in the context of a series of climate change and environmental conservation related sector reforms towards the realization of a green economy. This context is briefly outlined below.

The Republic of Kenya, having both signed and ratified the UNFCCC and the Kyoto Protocol on February 25, 2005 as a non-Annex 1 country means it can host CDM projects under compliance schemes as well as projects in the voluntary carbon market. According to the CDM Investment Climate Index (CDM-ICI), Kenya's investment climate is rated as "adequate" and Kenya lies at the ninth position in Africa. ICI puts Kenya among the top 10 based on emissions reductions already sold to international climate funds, (however this does not include CDM, as

the only CDM project in the country was registered by the UNFCCC Executive Board [EB] in September 2008 (NCCRS 2009).

In its endeavor to respond to the demands of climate change and to improve the investment environment, the country has recently initiated coordinated efforts aimed at mitigation and adaptation to climate change that are entrenched in the on-going process leading to the establishment of a National Climate Change Response Strategy (NCCRS). The NCCRS is an outcome of a recommendation contained in the current National Environmental Policy, 2008 with the aim of unlocking funding for mitigation and adaptation endeavors.

The element of a participatory approach to the NCCRS process is underscored because climate change is and will continue to affect every facet of life of the Kenyan people. Efforts are aimed at the institutionalization of adaptation and mitigation measures to minimize risks and maximize opportunities. Essential in this task is an informed public on climate change and its impact; and establishment of institutional framework that would translate the aspirations of the public as a whole and spell out roles and responsibilities of all actors including indigenous peoples.

Overall, the NCCRS provides a framework for adaptation, mitigation, capacity building, policy, public awareness and participation mechanism to address the challenges and opportunities afforded by climate change. In short, the NCCRS is for posterity and will be used to guide Kenya's present and future climate change activities given that climate change will persist.

Kenya's performance in the CDM (and other carbon markets) so far has been dismal. The reasons given for Kenya's poor performance include corruption, low level awareness of CDM potential on the part of the private sector, particularly investment and financial organizations. CDM is private sector-driven and only undertaken in about two per cent of the countries in Africa. There are three projects associated to CDM in Kenya—Kengen Geothermal projects, Sondu Miriu, and the Turkana Wind-power project all of which are based on western concept (Kroeder 2010). Almost all financial organizations involved in CDM are northern-based. High transaction costs and slow move-

ment of carbon projects due to the need to develop baselines and methodologies, especially for small-scale projects with small Certified Emission Reductions (CER) revenues, are factors that are unlikely to attract credit facilities. Other reasons include lack of capacity and poor institutional structure to support climate change activities in Kenya. Kenya is not considered a least developed country (LDC) hence it does not qualify for the Least Developed Countries Fund (LDCF) which is an adaptation fund under the UNFCCC. However, Kenya's project on Adaptation to Climate Change in Arid Lands (KACCAL) has benefitted from the World Bank's Special Climate Change Fund (SCCF).

The strategic focus of the NCCRS is to ensure that adaptation and mitigation measures are integrated in all government planning and development objectives and realized through collaborative and joint action with all stakeholders in order to ameliorate this vulnerability. The strategy paper makes attempts at prioritizing most vulnerable sectors of the economy among which are rangelands. The NCCRS is therefore one of the many policy and legal frameworks processes relevant in the country's participation in global, national and local initiatives such REDD+ in response to the challenges and opportunities occasioned by climate change.

In the section that follows a brief overview of the status of the country's forests, the link between forests, land tenure, rights and vulnerability of indigenous peoples including the value of indigenous knowledge and practices is presented.

FORESTS, DEFORESTATION AND DEGRADATION

Forests in Kenya

Africa is a massive continent with vast natural resources many of which are under increasing threat (Smith 2009). Its area can actually fit the whole of the USA, China and Europe and still have South Africa left over which itself is as big as Germany, France and Holland combined. The vastness of Africa is a home to a rich biodiversity. It is estimated that Africa holds at

least 25 per cent of global biodiversity in terms of ecosystems, species and genetic variety (Mugabe and Clark 1998). This rich and varied biological resources form the region's natural wealth on which its social and economic systems are based. These resources have global importance because of their potential to mitigate and adapt to climate change.

The world's forest is estimated at 30 per cent of the world's surface with tropical and subtropical forests and woodlands comprising 56 per cent temperate and boreal forests accounting for 44 per cent. In a report by FAO (Food and Agriculture Organization), the total forest cover in Africa was estimated to be around 650 million hectares in 2000. This is equivalent to 17 per cent of the global forest cover and approximately 22 per cent of Africa's land area. Africa has 14 different types of forest in temperate and tropical climates. However, the extent of forest cover varies between sub-regions. In terms of life support, the humid tropical forests of equatorial Africa support an estimated 1.5 million species in Africa's arid land, like that of Namib Dessert and Sahel, may be considered as among the harshest environments in the world but it still serves as a home to some plant and animal species. Kenya is a part of these rich and diverse African ecosystems (Grida 2009).

The Republic of Kenya has an area of approximately 582,646 sq km comprised of 97.8 per cent land and 2.2 per cent water surface.[4] Only 20 per cent of the land area can be classified as medium to high potential agricultural land and the rest of the land is mainly arid or semi-arid. Forests, woodlands, national reserves and game parks account for ten per cent of the total land area.[5] Kenya is rich in biological diversity, including over 6,000 species of higher plants, about 875 species of butterflies, 1,079 species of birds and 379 species of mammals (NCCRS 2009). Most of these species of fauna are associated with forest and woody vegetation. Furthermore, forests contain more than 50 per cent of the nation's tree species, 40 per cent of the larger mammals and 30 per cent of birds (NCCRS 2009). This biological diversity is spread over the four ecological zones, each with different flora and fauna composition.

Forests in Kenya cover a total area of 37.6 million hectares out of which 2.1 million hectares are woodlands, 24.8 million

are bushlands and 10.7 million are wooded grasslands. Only 1.7 million hectares are gazetted and managed by Kenya Forest Service (KFS). A total of 9.4 million hectares of a variety of tree coverage exists on farmlands, settlement areas and urban centres. The majority of these (gazetted) forests are managed by the Kenya Forest Service while the Kenya Wildlife Service (KWS) manages other forests in National Parks and Nature Reserves.

Most of the forests in the country are largely confined to the semi-humid and humid parts of the country and occur in two main regions: the Western Rainforest and the Montane Forest Region in the central highlands. The Western Rainforest Region has nearly 19,000 hectares of forest and it includes the Kakamega and Nandi forests. The Montane Forest Region has about 748,500 hectares of indigenous forest and 102,800 hectares of plantation. Included in the Montane Forest Region are Mt Kenya forests, the Mau forests and the Aberdares ranges. They represent an overwhelming 90 per cent of Kenya's gazetted forests. In addition, there are also the riverine and coastal forests, including mangrove forests. Of the total area of reserved forest, roughly 65 per cent is indigenous forest, 10 per cent is exotic plantation and one quarter is covered by other vegetation.

In addition to the closed canopy indigenous forests, 80 per cent or more of the total land area in Kenya is classified as arid and semi arid lands (ASAL) which comprises savanna and grassland ecosystems traditionally used for pastoral purposes. Woodlands, bushlands and grasslands cover approximately 40 million hectares of land in Kenya and constitute significant but diminishing carbon sinks. Farm forestry and dry land forests have recently assumed a lot of prominence in providing goods and services to rural communities. According to the NCCRS, the two programs also present the two most promising opportunities for increasing forest cover in the country. There is growing concern over the rate of deforestation in the country generally associated to increase in population, economic expansion, land use and land use changes.

Of critical importance for restoration of desired forest cover in Kenya is the conservation of Kenya's five forested mountains namely Mount Kenya, Aberdares, Mau Forest, Mount Elgon, Cherengani Hills which jointly supply most of the freshwater

resources for the entire country, as well as being critical reservoirs of biodiversity and carbon stocks. These forests directly deliver vital services such as clean water, timber, fuel, and food to rural communities. In Kenya, electrical power generation (70%) and wildlife conservation are all directly or indirectly related to the country's forest resources. The benefits of healthy forests and the costs of forest degradation are felt at all levels, from individuals through local communities, and at national, regional, and global scales. Through their linkage with larger scale hydrological and climatic systems, they also directly impact agricultural production, biodiversity and global climate change (Okowa-Bennum and Mwangi 1996).

Specifically, the carbon sequestration capacity of tropical forests has been estimated at 144.0 tons of carbon per hectare (tc/ha) for total above ground biomass and 66.0 tons of carbon per hectare for soil and below ground biomass. The total forest area (2.2 million hectares) has a capacity to sell 483 million tons of carbon equivalently in proto-carbon credits (at US$20 per tc). This translates to approximately Ksh77.28 billion at the current prices.[6]

The Kenyan forestry sector also contributes significantly to the growth of the national economy. According to KFS, forest products and services are estimated to contribute about Ksh7 billion to the economy and nonstop employs 50,000 and indirectly another 300,000 people. Over 530,000 households living within a radius of five kilometers from the forest reserves depend directly on forests for cultivation, grazing, fishing, fuel wood, honey, herbal medicine, water and other benefits. The sector contributes about Ksh320 million per year to Kenya's GDP or approximately one per cent of the monetary economy and 13 per cent of non-monetary economy with a direct use values in terms of timber, fuel wood and poles estimated at Ksh3.64 billion. Tea, tobacco and fish processing companies alone annually consume an additional 20-10 million cubic meters of wood fuel worth Ksh1.6 billion. In the rural areas, more than 3.5 million households rely on forests and forest based products (fuel wood, charcoal timber and wood and fruits) to meet their livelihood needs. Approximately 75 per cent of the country's total domestic energy is derived from wood.

While the benefits derived from forests are critical for the general populace in the country due to their role in supporting biodiversity, they are most especially so for the indigenous peoples who consider the forest as their home, an integral part of their culture and the source of their livelihood. Despite the overwhelming evidence of the benefits accrued from forests locally, regionally and globally, these forests are under serious threats from deforestation and forest degradation.

Drivers of Deforestation and Forest Degradation

There is growing concern on deforestation and degradation with experts saying that deforestation in developing countries is exacerbating the effects of climate change. Closed canopy forests in Kenya, for example, reduced from about 30 per cent of Kenya's land area at the beginning of the 20th century to less than two per cent at the present. The country recorded an annual deforestation rate of 0.3 per cent between 1990 and 2005. These forests are threatened by deforestation and forest degradation through excisions, exploitation, illegal logging, pit-sawing, charcoal burning and forest fires. The increasing population of Kenya is likewise putting a strain on the natural resources. In 2003, Kenya's population was estimated to have reached 31,987,000, which placed it as number 34 in population among the 193 nations of the world. Interim results of the 2009 national census place the population figure at 40 million, well above the UN projected population for the year 2015 initially placed at 36, 864,000 growing at a rate of 1.45 per cent.

Deforestation in Kenya releases about 348 metric tons of carbon for each hectare cleared or converted to agriculture or other purposes. As such, Kenya's annual deforestation rate of 12,000 hectares may produce 4,276,000 tons of carbon emissions per year (FAO 2006). It is estimated by the UN that for sustainable development to occur, a nation, such as Kenya, needs to have at least 10 per cent forest cover to provide all the vital services which these important and fragile ecosystems supply. According to the NCCRS, the reforestation needed to achieve a

10 per cent cover is about 50,000 sq km, which equates to over a billion trees.

Since the REDD+ mechanism aims at slowing down the rate at which the remaining primary and managed forests are degraded and deforested, understanding the factors contributing to the reduction of forest cover and degradation is paramount. One of the most comprehensive attempts to discuss the main drivers of deforestation in the country is presented in the country's R-PIN and to some extent by the NCCRS. The Policy and Institutional Working Group formed under the REDD process in the country, also focused its work on drivers and underlying causes of deforestation and forest degradation, including possible ways of addressing these underlying causes (WB 2009**).** Some of the causes of deforestation and forest degradation identified include, among other things: over-harvesting and unsustainable timber harvesting practices, excessive extraction of fuel wood for commercial and non-commercial purposes, increasing forest fire frequencies and overgrazing. Degradation is facilitated by rampant illegal activities (encroachment and settlement) and corruption. A closer look at each of the identified drivers of deforestation and forest degradation is essential in endeavors to develop strategies aimed at the restoration of forest cover in the context of REDD+.

Unsustainable utilization

A partial presidential logging ban has been in place since 1999. With the partial ban still in place, only a few larger industries with Government shareholdings were allowed to harvest trees in State forest plantations. Harvesting operations were wasteful since the concessionaires were only paying a very low price for the extracted timber. Although the said concessions are currently abolished within natural forests, and the logging ban remains in force, unsustainable utilization continues for the reasons provided below.

Institutional failures

These failures are linked to: 1) inefficient governance structures; 2) inadequate capacity to enforce the law; 3) inadequate forest management plans; and 4) lack of real community participation in forest management. Institutional failure, for example, happens when State monopoly rights over gazetted forests presupposes the existence of an efficient state machinery that is able to carry out its duties without necessarily taking into account the existing capacity of State agencies, forest policy and legislation. Such presupposition is often contravened owing to inadequate enforcement capacity, differences between local and national priorities, labor needs and shortage of vehicles for monitoring purposes (Okowa-Bennum and Mwangi 1996). The Transparency International Global Corruption report (2010) opines that climate change is perhaps the most complex global governance challenge the world has ever faced. According to the report, corruption threatens to jeopardize current efforts of international cooperation, deep economic transformation and resource transfers. Many of the institutions, governance processes and initiatives designed to mitigate and adapt to climate change are vulnerable to a wide range of corruption risks. Understanding these corruption risks is crucial if the regime to address climate change and secure stable future for our planet is to be effective and specifically so if REDD+ as a mitigation strategy to climate change is to be successful.

Poverty and Inadequate Resource Mobilization

Forest goods and services are largely public in nature and therefore depend on public resources. However the forestry sector in Kenya was marginalized during the last decade. In the 2007/08 financial year, the budgetary allocation for forestry development was 0.3 per cent of the national budget, which is hardly adequate for reforestation, afforestation and management activities. Also, incentives to support private sector investments in forests are inadequate despite the country's heavy reliance on wood fuel for energy (currently at 70% of national energy demand. The challenge of mainstreaming forestry management and conservation efforts into the national poverty re-

duction strategy paper (PRSP), that is, getting the evidence that forests make a contribution to livelihood and national economy, remains a daunting task for development planners and policy makers in the country.

Shifting Cultivation System

Shifting cultivation is popularly blamed as unproductive and a serious cause of desertification and deforestation. However, many shifting cultivation systems were appropriate and sustainable at low population pressures. Generally they are no longer adequate to meet current demand because of increases in population. The practice still exists mainly on trust-land in semi-arid regions but not anymore on large areas. With increasing population pressure, the fallow periods decrease leading to woodland degradation and severe food shortages. The reduction in fallow periods makes shifting cultivation less a closed system these days than simply a means of opening up forest frontiers for agricultural expansion. The adoption of Sustainable Land Management practices and the protection of trees on farms can increase agricultural productivity, reduce the vulnerability of agricultural systems to climate change and increase carbon stocks. This is a less common practice among the indigenous peoples (pastoralist and hunter gatherers) in the country.

Pressure for Expansion of Agricultural land, Settlement, and Development

The depletion of forests in Kenya has also been aggravated by various social problems. According to Okowa-Bennum and Mwangi (1996), the rapid rise in population has as consequence an increased pressure on resources leading to amplified demand for agricultural land, timber and other forest products. This situation ultimately results in encroachment on forests reserves. This problem is compounded by an increase in official excision for purposes of settling landless communities.

However, compared to many other countries, there is a limited pressure in Kenya to expand agricultural land and settlements. In this country, it is widely recognized that increasing agricultural productivity and reforestation are the most prom-

ising options to sustain the growing population and to support rural development. A landscape mosaic of cropland, woodlots, fruit orchids and managed protected forests woodlands is envisioned and such is already developed in some areas. As outlined in the World Development Report 2008 on agriculture, fruit trees are already contributing to about 10 per cent of rural income generation. Therefore, a national REDD+ program in Kenya will focus on reducing emissions from forests, agroforestry and woodlands. The latter are also crucial in the production of fodder and in the reduction of climate change vulnerability in pastoral systems (NCCRS 2009). However, a joint effort is required to support the adoption of Sustainable Land Management Practices, including agroforestry and fodder production.

Unsustainable Charcoal Production and Marketing

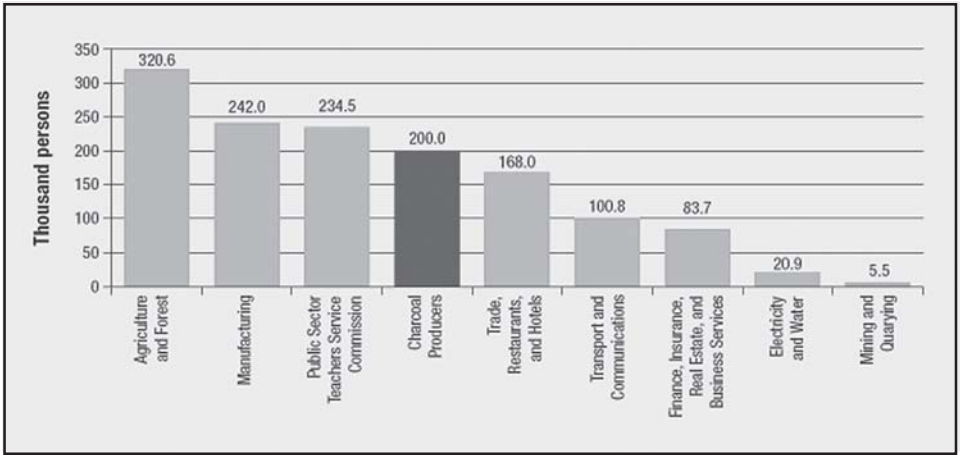
Charcoal is: a) the main source of energy for many households and industries; b) a leading cause of forest degradation (Lambreacht at al. 2003); and c) a livelihood system for more than 10,000 charcoal burners. According to the NCCRS, over 90 per cent of all the wood harvested in the country is used as wood fuel while only two per cent is used as poles and four per cent is used for industrial feedstock. In some places, nearly 100 per cent of rural energy is biomass based with little prospects for any significant change in the immediate term. Charcoal consumption is therefore expected to grow with increasing rural-urban migration and rising kerosene prices (See Table 1).

Table 1. Kenya's Total Biomass Energy Consumption by Sector and Fuel Type, 2000. Source: Ministry of Environment, 2002

	SHARE IN KENYA'S TOTAL BIOMASS ENERGY CONSUMPTION (percent)					
	Firewood	Charcoal	Industrial Wood	Wood Wastes	Farm Residue	TOTAL BIOMASS
Households: Rural	40.0	22.0	0.0	0.4	7.0	69.4
Households: Urban	1.0	17.0	0.0	0.2	0.0	18.2
Cottage Industry	4.0	8.0	0.0	0.0	0.0	12.0
Agriculture	0.0	0.0	0.0	0.0	0.0	0.0
Transportation	0.0	0.0	0.0	0.0	0.0	0.0
Commerce and Industry	0.0	0.0	0.3	0.0	0.0	0.3
TOTAL	45.0	47.0	0.3	0.6	7.0	100.0

Around 10 per cent of Kenyans are involved in or supported by the charcoal trade (Figure 4). The amount of charcoal produced each year in Kenya is 1.6 million tons with an annual income from charcoal estimated at Ksh32 billion. This amount is almost equivalent to income generated from tea (ESDA in NCCRS 2009). This makes charcoal not only a source of energy in Kenya but also an important and simple means of earning cash income. This trade in charcoal is heightened by the fact that charcoal suits the living conditions of the urban poor by providing a reliable, convenient and accessible source of energy for cooking because this can be availed at a stable cost and at any required proportion at all times. Currently, however, most of the charcoal is unsustainably produced in woodlands therefore sustainable charcoal production is not cost competitive (See Annex 2).[7] At present, the land owner and the producer receive only 23 per cent of the gross revenues.

Table 3. Employment by the Charcoal Industry Compared to other Formal Sectors, 2004. Sources: ESDA 2005b, CBS 2006.



In as much as charcoal provides the aforementioned benefits, the consequence of its production is now one of the most pressing environmental problems faced in Kenya especially in the ASALs because there is reduction of natural resources on which the poor depend. The continuous process of land degradation also contributes to the downward spiral of people's eco-

nomic situation. The unsustainable use of trees for charcoal production also reduces the forest cover thus carbon sequestration is in turn reduced while the release of already fixed carbon into the atmosphere is increased.

The government also often does not receive any resource use of income tax. This demonstrates the need to improve the system in addition to creating legal job opportunities particularly for the youth in rural areas. The Policy and Institutional Working Group under REDD/REDD+ discussions focused on the high reliance on charcoal and wood fuel, the lack of incentives to use appropriate technologies, the need for regulations on production/trade/consumption of wood fuel, the role of the Ministry of Energy in making charcoal production more sustainable, and the need to understand the charcoal value chain as the underlying factors fueling charcoal as a driver of deforestation.

In the framework of a REDD+ program, the conversion technology would hopefully be improved and the legal ambiguity be reduced in order to achieve emission reductions. Under a REDD+ program, a coherent taxation system and a fair reward mechanism for emission reductions should be developed with support from indigenous peoples, community associations, local government agencies and NGOs. Unsustainable charcoal burning as a driver of deforestation is of particular concern to indigenous communities (pastoralists) living in the more than 80 per cent ASAL areas of the country. In these areas, the County Council administrative and management structures are not clear about where forestry and natural resources are taken care of and they often lack technical capacity to take leadership on forest management. There is also very little information about forest resources on private forest land.

Overgrazing

Forest grazing is a common practice in many deforested and degraded State forest reserves, and it is a source of income for KFS as long as the partial logging ban is in place and resources for reforestation or other incomes are lacking. In the framework of the World Bank Green Belt Movement's Bio Car-

bon Fund for example, regulatory mechanisms to control grazing inside forest reserves and to support the establishment of fodder trees and zero grazing systems outside the reserve are promoted.

While most government literature point at overgrazing as one of the drivers of deforestation and forest degradation, indigenous peoples representatives interviewed do not entirely agree with this assertion. They contend that indigenous communities would only utilize trees as fodder or graze in forested areas as a last resort during extreme droughts when they have no other grazing options. Even in the rare instances when trees are utilized as fodder, the indigenous peoples' value system on promotion of environmental conservation and integrity, for example in the case of the Maasai, would discourage the indiscriminate cutting of trees. Besides, most of the humid tropical/montane forests do not provide the best grazing environments for the local indigenous livestock breeds in the country. Hesse et al. (2009) argue that contrary to the belief that pastoralism causes overgrazing, there is little evidence that drylands pastures are generally over-stocked or overgrazed. In fact, much more pasture degradation is evident in areas around permanent settlements than in open rangelands where mobile pastoralists seasonally move their herds to allow pastures to regenerate. Where overgrazing presents a problem, it can be controlled in a joint effort between community associations and government agencies.

Forest Fires

Fires set by human agency are threats for many ecosystems especially in the tropics. Fire outbreaks in forested areas in Kenya have become more frequent and these have caused disastrous economic consequences. Forest fires have, in the recent past, affected Kenya's major forests including Mt. Kenya Forest. Table 3, which summarizes the extent of damage caused by fires over the last 20 years, indicates loss of more than 5,700 ha per year.

Table 3. Forest Cover loss due to forest fires over the last two decades

	Area Burned (Ha)			
Year Area Burnt	Plantation	Natural	Forest Bush & Grass	Total
1988	188	155	3,792.00	4,135.00
1989	231	175	2,356.00	2,762.00
1990	85	331	12,183.00	12,599.00
1991	1,705.00	236	6,697.00	8,638.00
1992	6,170.00	5,494.00	13,302.00	24,966.00
1993	1,731.00	515	1,718.00	3,964.00
1994	690	69	1,914.00	2,673.00
1997	4,726.00	2,961.00	7,729.00	15,416.00
1999	1449	317	2,041.00	3,807.00
2000	861	1,229.82	886	2,976.82
2001	601	486.8	1,383.00	2,470.80
2002	783.4	4,229.00	3,041.00	8,053.40
2003	301.6	2,361.00	2,349.00	5,011.60
2004	214	893	3,783.00	4,890.00
2005	1,068.3	4,683	4,901.9	10,653.20
2007	2	5	18	25
2008	1,020.30	146.55	351.01	1,517.86
Totals	**21,826.60**	**24,287.17**	**68,444.91**	**114,558.68**

Source: NCCRS 2009.

Forest fires continue to decimate the country's forests mainly due to lack of adequate preparedness and prevention measures arising from low resource allocation, lack of firefighting equipment and lack of collective responsibility across government agencies in dealing with fire outbreaks. Elsewhere, communities have traditionally used fire as a management tool or a way to regenerate pastures, but due to disruption of grazing patterns (as a result of changing weather patterns and population pressure), this practice is no longer effective. It is therefore nec-

essary to introduce tree fodder banks in forestry program outside of developing fire management plans. The projected rise in temperatures and long periods of drought will most likely lead to more frequent outbreaks and intense fires. The rise in temperature is likely to affect many aspects of forests such as tree growth, survival, yields and quality of wood and non-wood products. Food and fuel for indigenous populations may be disrupted due the changes in temperature.

Wildlife Damage

In some areas like Mt. Kenya, Aberdares, Mt. Elgon and Arabuko-Sokoke forests, large herbivores are a constant threat to young forest plantations causing economic and biodiversity losses. The Aberadares fencing project is one option to reduce wildlife damage. In the past, wide ditches placed in strategic wildlife movement areas reduced wildlife damage (NCCRS 2009). Most of the country's National parks and game reserves such as Samburu, Maasai Mara and Amboseli are found within pastoral rangelands. Several research works around these areas indicate that a significant percentage (not less 65%) of all Wildlife in these parks forage within communal ranches for most part of the year. The stress arising from reduced forage within the protected areas associated to climate change has forced large herbivores, especially elephants, to forage for longer periods within communal areas thus contributing to forest degradation. A close cooperation between KFS, KWS and local communities can reduce respective damages.

Replacement of Superior Forest Covers Types

As indicated elsewhere in this paper, exotic forest plantations represent 10 per cent of the total area of reserved forest, 65 per cent of indigenous forest, and one quarter under other vegetation. The concern over deforestation and forest degradation goes beyond the need to simply maintain and restore forest cover. Another interest is the nature of forest plantations adopted. On the Kenyan Coast for example, some privately owned high-conservation natural forests have recently been converted into coconut plantations.

Further loss of forest in the country in the late 1980s resulted from the ungazetted excision of forest land for the establishment of Nyayo Tea Zone Development Corporation (NTZDC) which was created under presidential decree. The project was implemented around gazetted forests in 14 districts ostensibly to: increase the country's acreage under tea, create employment in rural areas, and to provide a buffer around the nation's forests to fend off encroachment (Okowa-Bennum and Mwangi 1996). Although additional forest areas have also been created, such areas are generally of poor quality. On the whole, the net effect has been the reduction in the forest cover as well as the integrity of forested areas. Regulations, combined with Payments for Environmental Services (PES) for maintaining carbon stocks (such as REDD+) and biodiversity, are hoped to contribute to the reduction of these respective incidents in the future.

In order to effectively address some of the drivers of deforestation and degradation, there is a need to carry out assessments on forest products' sustainable utilization systems, studies on supply and demand modeling and analysis of value chain of forest products (including pricing). It is also equally necessary to look at the mechanisms for benefit and/cost sharing.

Evidence of Deforestation and Forest Degradation: the Case of the Mau Forest Complex

The Mau Complex forms the largest closed-canopy forest ecosystem of Kenya. Its area is as large as the forest of Mt. Kenya and the Aberdare combined. As a montane forest, it is one of the five main "water towers "of Kenya together with Mt. Kenya, the Aberdare Range, Mt. Elgon and the Cherengani Hills (Annex 3). It is the single most important water catchment in Rift Valley and Western Kenya. Through the ecological services provided by its forests, the Mau Complex is a natural asset of national importance that supports key economic sectors in Rift Valley and Western Kenya, including energy, tourism, agriculture (cash crops such as tea and rice; subsistence crops; and livestock) and water supply. According to the April 2, 2009 issue of

Kenyan national newspaper, Daily Nation and the April 4, 2009 issue of Standard Newspaper, the Mau Complex is particularly important for tea and tourism, two of the three largest foreign currency earners in this country. The market value of goods and services generated annually in the tea, tourism and energy sectors alone to which the forest of the Mau Complex have contributed, is in excess of Ksh20 billion.

The Mau complex is the catchment of all (but one) main rivers west of the Rift Valley, including Nzoia, Yala, Nyando, Sondu and Mara Rivers all draining to Lake Victoria ; Kerio River draining to Lake Turkana; Molo River draining to Lake Baringo; Ewaso Nyiro River draining to Lake Natron; Njoro, Nderit, Makalia and Naishi Rivers draining to Lake Nakuru**.** Hence, the complex feeds major lakes including: Lake Victoria, Lake Turkana, Lake Baringo, Lake Nakuru and Lake Natron of which three are cross-boundary: Lake Victoria (Nile River Basin), Lake Turkana (Kenya/Ethiopia), and Lake Natron (Tanzania/Kenya). The waters of these rivers have a combined market value of electricity generated and planned hydropower plants of approximately Ksh5.3 billion (BBC 2010).

Furthermore, the Mau complex is the lifeline for eight major conservation areas in the country, including Lakes Baringo, Nakuru and Natron National Parks; Maasai Mara National Reserve, South Turkana National Park, Kerio Valley National Reserve, Kamnarok National Reserve, Serengeti National Park, and Kakamega Forest Reserve all of which are rich heritage sites for a diverse array of flora and fauna for the region and the global community (Annex 4). In addition, the Mau Complex provides environmental services essential to crop production (continuous river flow, favorable micro-climate conditions) as well as many products (medicinal plants, firewood and grazing).

These forests are the life support system of half of the country and beyond. Tea grown in Kericho and the Nandi Hills, worth an estimated Ksh8 billion a year, is nurtured by the moisture and ambient temperatures provided by these forests. Five million people in the Lake Victoria basin owe their livelihood to those same forests. But these forests have been systematically attacked over the past 10 years. The story told over time was

that the forest was being destroyed to resettle victims of land clashes who had been kicked out of their farms in politically instigated tribal warfare.

Degazettement of forest reserves (excisions), logging and continuous widespread encroachments have led to the destruction of some 104,000 hectares representing over 24 per cent of the Mau Complex area over the last 10 years. In 2001, 61,023 hectares of forest in the Mau Complex were excised. In addition, some 43,700 hectares have been encroached in the remaining protected forests of the Mau Complex (Annex 5). Such an extensive and on-going destruction of key natural assets for the country is a matter of national and regional concerns. It presents significant environmental, economic and social threats and underlines a breakdown of law and order (BBC 2010).

The stories narrated by the local indigenous peoples on the profound negative impacts of the destruction of the forest are any one's guess. A community of about 350,000 or so residents are threatened as the Narok River suffocates following the strangling of the Mau. The Enkare Narok River (river of black waters, in Maa—attesting to the high water quality before deforestation) has been reduced to what an April 20, 2009 article in the Standard Newspaper describes as "a dirt-laden stream flowing sluggishly where water currents were once intimidating and fast. The river is sadly bereft of life." Jackson ole Kamoye, an activist and founding member of a local community based organization called "Friends of Mau Conservation" said his father told him that the only drought compared to that in 2007 and 2009 was the one in 1946. The trouble is that these droughts are becoming more frequent, more severe and less predictable particularly since 2001—the year when 60,000 hectares of the Maasai side of Mau were allocated to settlers and subsequently cleared.

Efforts to save the Mau forest have generated a storm pitting government agencies, beneficiaries of the forests' excision, conservationists and local communities. So serious is the Mau Forest fiasco that several multilateral institutions and organizations and private sector players have offered to chip in including the Nairobi-based UN Environment Programme (UNEP), Equity Bank, and East African Breweries (EABL), among others. The government too has set up several tasks force and com-

missions to look into the genesis of the problem and propose solutions.

The history of the Maasai side of the Mau Complex is one that has been fraught with contestation over tenure and user rights since the colonial times. Despite its critical importance for sustaining current and future economic development, the Mau Complex has been impacted by extensive illegal, irregular and ill-planned settlements as well as illegal forest resources extraction. The REDD mechanism provides both opportunities and challenges in the current efforts to restore the Mau Complex, reduce emissions and secure livelihoods. Unless the underlying structures related to the respect of rights of indigenous communities, security of resource tenure, harmonization of laws and policies and strengthened law enforcement capacity to address concerns of corruption are dealt with, the mechanism may just give rise to another scandal.



Figure 1. A section of Mau Forest Complex upon deforestation.



Figure 2. Forest destruction in progress. **Source:** Standard Newspaper April 2009.

In the section that follows, a brief discussion on the situation of indigenous peoples in relation to control, access and user rights to land and natural resources within their ancestral domains in the country is provided.

INDIGENOUS PEOPLES, FORESTS AND RIGHTS

Indigeneity in Kenya

While all Kenyan communities generally share the same history of colonial subjugation and racial discrimination and thereafter the right to freedom and equal citizenship of the new State upon acquisition of independence, it is generally accepted that due to geographical situation and historical circumstances, social and cultural distinction are considered defining characteristics that differentiate the many tribes that populate the country. It is only most recently that government authorities and specialists are beginning to recognize that historically, the pastoralists and hunter-gatherer communities in the arid and semi-arid lands and forests were (and perhaps still are) systematically marginalized on the basis of their economic, social and cultural characteristics which are inextricably connected to the use of land and natural resources. Over the years, policies directed at these communities were mainly top-down and discriminatory and these have eventually impoverished them.

The International Working Group for Indigenous Affairs (IWGIA) Report 9:993-94 recognized as indigenous in Africa the nomads of Eastern Africa, the Pygmies in Central Africa, the hunting gathering Sans of Southern Africa and the Basarwa of Botswana. Indigenous peoples in Kenya include (but may not be limited to): Awer, Boni, Borana, Burgi, Elmolo, Entorois, Ilchamus, Gaaljecel, Gabra, Maasai, Malakote, Munyaya, Ogiek, Orma, Pokot, Rendile, Sabaot, Sakuye, Samburu, Sengwer, Somali, Talai, Turkana, Watta and Yaaku often categorized into the two broad categories of Pastoralists and hunter-gatherers (forest dwellers or forest dependent). They are spread across the country either adjacent to forests or within the vast Arid and Semi-arid Lands which make up more than 80 per cent of the land mass and are home to more than 25 per cent of the national population and include almost all the majority of wildlife parks, reserves and protected forests. These areas present the highest incidences of poverty and the lowest level of access to basic services in the country. According to the Rodolfo and Miloon Report, over 60 per cent of the population lives below

the poverty line which is above the average of 50 per cent nationwide.

Having small population, many indigenous communities do not have sufficient political representation at the national or provincial levels. The main effect of their political marginalization is the unequal access to development resources including the Constituency Development Fund (CDF) and government employment besides the lack of consultation and effective participation in "development" initiatives that affect their livelihoods.

Although there is no specific legislation governing indigenous peoples in Kenya, this State is party to the six core international human rights treaties (Annex 1). Kenya has also ratified a significant number of ILO Conventions relevant to indigenous and tribal peoples (such as Convention Nos. 111, 29 and 182). Kenya, however, did not sign ILO Convention No. 169 which concerns indigenous and tribal peoples in independent countries. At the regional level, Kenya is a party to the African Charter on Human and Peoples' Rights.

The Constitution of Kenya incorporates the principle of non-discrimination and it guarantees civil and political rights; however, it fails to recognize economic, social and cultural rights and group rights. The rights of indigenous pastoralist and hunter gatherer communities are not recognized as such in Kenya's constitutional and legal framework, and no policies or governmental institutions deal directly with indigenous issues. However, there seems to be growing consensus on the need for affirmative action towards these communities.

The most ambitious attempt to address the concerns of Indigenous communities in the country is reflected in the Draft National Land Policy and the Harmonized Draft Constitution. The constitutional review process that started in 2003, resulting in the current "Harmonized draft constitution," takes into account specific needs and rights of pastoralists and hunter-gatherers. Under the Chapter on the Bill of rights article (44) on rights and fundamental freedoms, the Harmonized draft constitution articulates the rights of minorities and marginalized groups. Specifically taking into "account their identity, way of life, special circumstances and needs." Furthermore, it calls for

measures to put in place affirmative action programs in areas of education, water, health services and transport infrastructure, designed to benefit and improve the situation of marginalized groups. The draft further vouchers for efforts aimed at promoting marginalized groups' full participation and representation in governance and at assisting such communities "to develop their cultural values, language and practices" (Draft Constitution 2009, 27).

The Harmonized Draft Constitution proposes formation of a Land Commission with the broad goal of addressing the thorny issues of land in the country. It was noted that the marginalized communities are losing their traditionally owned land due to "development."

Under the National Action Plan and Policy on Human Rights spearheaded by the Kenya National Commission on Human Rights (KNCHR) and the Ministry of Justice and Constitutional Affairs, attempts are being made to promote and protect activities related to pastoralist and hunter-gatherers in Kenya. Other official development initiatives, including the Poverty Reduction Strategy Paper (PRSP), the Vision 2030 and the Draft National Policy for the Sustainable Development of the ASALs, take into account the special characteristics of pastoralism.

Most of the human rights violations experienced by pastoralists and hunter gathers in Kenya are related to their access to and control over land and natural resources. Indigenous peoples' reliance on natural resources and their disproportionate poverty makes them more vulnerable to the effects of environmental threats such as cyclical droughts and floods, deforestation, soil erosion and pollution. The REDD+ mechanism, being a natural resource dependent strategy to combat climate change, has the potential to either exacerbate these tensions and marginalization over indigenous peoples' access and control over land or provide a window of opportunity for dialogue around respect and protection of their rights.

The Case of the Hunter Gatherers and Forest Peoples

Most of the hunter-gatherer communities have been evicted out of the forest during gazettement of these forests. These communities have traditionally preserved the forest but due to wanton destruction of the forest by members of other communities, they have become victims of blanket eviction by the government without consideration of the original homes of these communities. Examples cited in the two reports are the Ogiek in the Mau Forest and the Endorois in the Mochongoi Forest**.** Logging companies including Pan African Paper Mills, Raiply, Timber and Timsales Limited found an entry point into the forests, eventually transforming what used to be a vast forest and important water reservoir into hectares of tree stumps. As a result, the Ogieks were deprived of their traditional sustainable livelihood and they have been increasingly forced to become laborers at the new settlers' farms.

Settlement schemes, logging and charcoal production have put a severe strain on Kenya's rich and varied forests, and these have resulted in the loss of traditional habitat of Kenya's forest peoples, the indigenous hunter-gatherers such as the Awer (Boni), Ogiek, Sengwer, Watta and Yaaku. Many of these communities can no longer live by traditional livelihoods, and their cultures and language are rapidly vanishing with illegal logging playing a key role in this misfortune.

The Rodolfo Report indicates that when the Mau was gazetted as a National Forest in 1974, the Ogiek were evicted from their traditional habitat without prior consultation or compensation and in total violation of their basic rights. They were henceforth prevented from hunting or collecting bee honey for survival in the forest. Illegal logging, introduction of exotic plantations and the excision of parts of the forest for private development by outside settlers have endangered the Mau Forest, a water catchment area, as well as the country's environmental security. Being considered as squatters on their own land and legally banned from using the forest resources for their livelihood, their attempts to survive according to their traditional

lifestyle has often been criminalized and their repeated recourse to courts have not been successful.

The story is the same in the case of the Sengwer of the Cherangany Hills and Kapolet Forest. Likewise, the Watta in the precincts of the Tsavo National Park face similar threats to their livelihoods and the El molo on the eastern shore of Lake Turkana are also threatened by a continuous influx of settlers. These and other hunter-gatherer communities constitute the most marginalized communities in Kenya so they require urgent government attention to guarantee their basic human rights.

In his report, Rodolfo further argues that due to their historical marginalization and social exclusion, pastoralists, hunter gatherer and other minority communities consistently show higher poverty rates and lower levels of social and human development than the rest of the population in the country. It is perhaps in the recognition of this harsh reality of inequality that the government of Kenya's Economic Recovery Strategy for 2003-2007 (ERS) defines the situation in the ASALs as one of "rampant poverty." Under the "Social Pillar" within the Country's vision 2030, the government endeavors to address the concerns of social inequality by committing itself to increased "investment in the arid and semi-arid districts, communities with high incidence of poverty, unemployed youth, women, and all vulnerable groups in the country" (Republic of Kenya Vision 2030 2009, ix).

The latest vindication of the government's marginalization of hunter-gatherer communities and indeed general violation of indigenous peoples' rights in the country came with the landmark ruling delivered in February 2010 by the African Human Rights Commission over the expulsion of Endorois people from their ancestral domain for purported "tourism development." The ruling, in effect, makes clear to governments that they must treat indigenous peoples as active stakeholders rather than passive beneficiaries. The ruling should equally add impetus to other indigenous peoples' demands for restitution over historical injustices and dispossessions over their ancestral domains such as the infamous Anglo-Maasai Treaties of 1904/1911, the Iloodo-ariak Case and the Wagalla massacre, among others.

Pastoralists' Ecosystems, Climate Change and REDD

In Kenya and in East Africa, decision makers in government, the donor community and the wider public often perceive pastoralism to be an archaic, economically inefficient and environmentally destructive form of land use. Pastoralists are viewed as backward, resistant to change and inherently violent, willfully refusing the benefits of modernization because of their irrational attachment to their animals and mobile lifestyle. These deep-seated perceptions have had and continue to have a direct impact on policy, justifying either alienation of pastoral land or measures to turn pastoralists into modern livestock keepers. Such policies perpetuate a vicious cycle of increasing poverty, resource conflict and environmental degradation that reinforce the very perceptions surrounding pastoralism as a livelihood system. This, not only deprives pastoralists of their rights of self determination, but also represents a missed opportunity to capitalize on the significant economic and ecologic potential pastoralism offers in arid and semi arid areas of Kenya in a context of increasing climatic variations. These perceptions continue to be disseminated through the media and are often articulated in policy documents.

Pastoral rangelands are characterized by a number of habitat structures ranging from open grasslands to closed woody or bushy vegetation with varying amounts and composition of grass cover and grass species. Deforestation and poor land use have further increased environmental degradation, making the land more vulnerable to cyclical droughts and floods. The dry land ecosystems are generally characterized by poverty and climate change vulnerability. The ecosystems are ecologically grazing-dependent, and a reduction of mobility or exclusion of grazers results in a drastic drop in ecosystem's health and stability.

According to the NCCRS, rangelands make up about a third of the global land surface and nearly 88 per cent of Kenya's land mass and home to an estimated 4.5 to 6 million pastoralists and agro-pastoralists who are practicing mainly livestock keeping. According to USAID, pastoralism is the most economically viable production system for the drylands of Kenya, and the most environmentally sustainable management system. In Kenya, over

60 per cent of the national livestock herd is held by pastoralists and this produces 10 per cent of GDP and 50 per cent of agricultural GDP (NCCRS 2009). According to government statistics, the pastoral herd in 2002 alone had an estimated value of $6-7 billion. The sector also has forward and backward linkages with manufacturing, agro industries, distribution and other services, which add to the value of its overall contribution to the national economy. USAID suggests a multiplier effect of 1.8 to estimate the real value of livestock production to the economy.

Furthermore, rangelands play an important role in wildlife conservation in Kenya which is critical to Kenya's economy for generating foreign exchange earnings through trade and tourism. 75 per cent of Kenya's wildlife, a critical component of its tourism industry, is found in the drylands, and about 80 per cent of this are found outside protected areas. In addition, 92 per cent of the 3.5 million hectares of protected areas in the country fall within pastoral lands (Barrow and Magoka in Hesse 2009). Rangelands therefore form an important part of conservation areas of wildlife in Kenya both outside and within protected areas. It is estimated that direct and indirect revenues from wildlife conservationist policies amount to 10 per cent of GDP and nine per cent of total formal employment with tourism remains the leading foreign exchange earner for the country which brought in $800 million in 2006 (Republic of Kenya *Vision 2030 2009).*

Arising from this high value attached to wildlife conservation, this has often resulted in indigenous peoples being separated from wildlife and forests. Many families were evicted by the creation of protected areas, most of which were originally inhabited by pastoralists and hunter-gatherers (Rodolfo 2007). The growth of the tourism industry in connection with the establishment of protected natural areas has created additional problems for these communities. Cattle rustling, banditry and cross-border insurgency, mostly in the northern part of the country, have led to hundreds of deaths, thousands of internally displaced persons and flourishing trade in small arms, partly as a result of competition over diminishing natural resources (NCCRS 2009; Rodolfo 2007).

It is evident that drylands ecosystems are not only valuable in wildlife conservation, tourism and livestock keeping but equally in maintaining soil fertility, holding and maintaining water and air quality and also in carbon sequestration. They also harbor natural resources, including species adapted to drylands conditions. According to Shackleton et al. (2008), the degradation and/or loss of these resources would reduce climate adaptation and resilience options. The current climate change and REDD+ discussions around carbon sequestration is an emerging opportunity in the drylands. Empirical evidence suggests that grasslands store approximately 34 per cent of the global stock of CO2. African grasslands extend 13 million km^2 and have vast carbon sequestration potential (Reid et al. 2004 and Mortimore et al. 2008). In order to exploit carbon sequestration opportunities, the carbon sink capacity of drylands needs to be rehabilitated in some areas and preserved in others.

Pastoralists employ a number of highly specialized adaptation strategies to cope with their highly variable, unpredictable and sometimes extreme climatic conditions. These strategies include but not limited to: large herd size as insurance, splitting herds across space and time to spread risk from lack of grazing and exposure to disease, diversity in breed and species to utilize different ecological niches; loaning surplus animals to family and friends for their subsistence and building of their herds for enhanced social relations and social capital, and matching the availability of animals to the availability of natural pastures and water (Hesse 2009). These coping strategies are significantly threatened by a combination of communal land privatization policies and negative impact of climate change.

Global climate change has had an inordinate impact on rangelands and indigenous peoples' knowledge, systems and practices, because the productivity of grass and shrub dominated ecosystems is so closely linked to the short term expression of climate, weather, thermal regimes, rainfall amounts and duration of wet versus dry seasons which influence soil moisture content (Hesse 2009). Other aspects of global change, such as CO2 fertilization, invasive species and changes in land use, will also have significant effects on the ability of rangelands to meet human needs and desires (NCCRS 2009).

Despite decades of empirical research providing evidence of the value and resilience of the pastoral livelihood, many policy makers still view pastoralism as a backward, environmentally destructive and unsustainable production system. For their part, pastoralists often lack the knowledge, capacity and resources with which to lobby their cause. Climate change intensifies the challenges already facing the drylands because it interacts with existing problems and challenges and makes them worse.

Impact of Climate Change on Indigenous Peoples

In an article in the November 12, 2006 issue of The Observer entitled "Kenya's herdsmen are facing extinction as global warming destroys their lands," the author, Peter Beaumont, citing a research commissioned by the charity Christian Aid in Northern Kenya, dubbed pastoralists as "climate canaries"—people destined to become the first victims of world climate change. The report reckons that hundreds of thousands of these seasonal herders have already been forced to forsake their traditional culture—essentially becoming environmental refugees. This observation may not be far from the reality of the current situation of indigenous peoples in the country. The issues highlighted not only in other literature but equally from oral interviews and the researcher's observations attest to this reality.

The country has witnessed one of the most prolonged drought and famine in recent times resulting in enormous livestock losses and total disruption of livelihoods especially pastoral (NCCRS 2009). Describing what is now understood by most indigenous peoples to be the ravaging effect of climate change, one respondent exclaimed that "there are children born into this community who are now three years of age and have never known what it means to rain because it has not rained in the last three years." A similar story is told by a local herder who, two years ago, had a herd of about 700 heads of livestock, but at the time of the conduct of this research, he was left with only 50 heads of cattle whose survival couldn't be guaranteed. Mr. Oloishuro's[8] story isn't any different; his was a herd of 400 cattle but was also reduced to a herd less than a hundred emaciated animals, hardly able to lift their frail body-frames from the

ground. The psychological and emotional stress arising from the loss of his herd was too unbearable that the man attempted suicide.

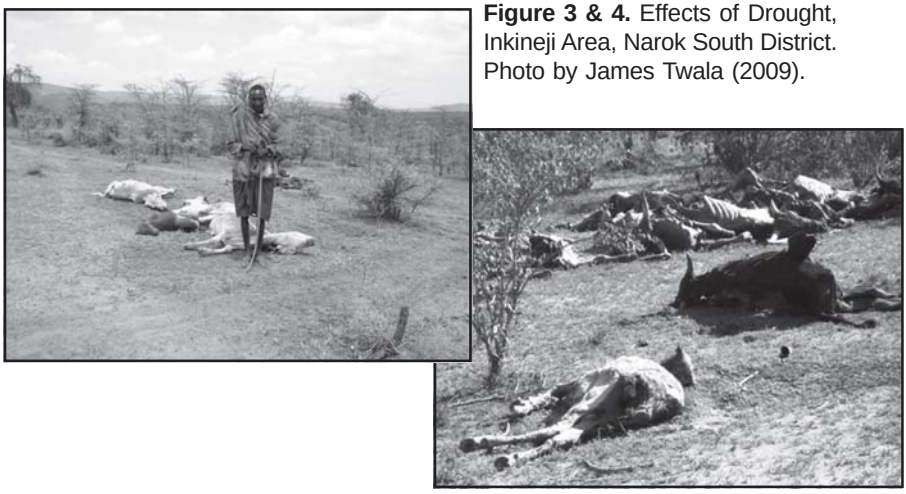


Figure 3 & 4. Effects of Drought, Inkineji Area, Narok South District. Photo by James Twala (2009).

One would be compelled to ask: How is the community coping with this situation? My research assistant, upon my arrival to this community, asked "have you seen any livestock along the road as you drove to this village?" "Very few," I responded and I asked why. My assistant answered, "The few surviving cattle nowadays rarely leave the homesteads. There are no more grasses and pastures across the entire rangeland. The seasonal dry grazing limits have been surpassed. Some herders went as far as Kwale district,[9] along the Kenyan coastline but few returned with livestock." The herders have resorted to feeding their remaining herds with commercially prepared feeds. Due to the prolonged duration of the drought and a large number of pastoralists increasingly relying on these feeds, the nutritive value of these feeds is doubtful. The urge to make profits while the drought lasts also contributes to the poor quality of the feeds.

The market prices for the weak and emaciated cattle are also at an all time low. With the market prices for animals previously placed at Ksh20,000 going for less than Ksh3,000, the pastoralists see no difference between selling the animal alive

and leaving it to die. Most choose to keep the cattle hoping against all hopes that the rains will fall sooner than later. They then opt for selling smaller stock (sheep and goats) to raise money to feed both the cattle and the household. While the price of cattle is diminishing, that of the most basic consumer goods is at an all time high with inflation estimated at 26.2 per cent in 2008 and 20.5 per cent in 2009 (CIA World Factbook 2010).

Lack of market for hides and skins has made the situation worse. Although livestock were lost in previous droughts, the price of hides and skins was often encouraging during such periods. Pastoralists, this time around, simply watched helplessly with their traditional resiliency and adaptation and coping mechanism stretched to near breaking point. The NCCRS and several print media reports in the country reported an increase in the incidences of diseases for both human and livestock associated to climate change including highland Malaria and Rift Valley Fever (RVF) which affect cattle.

Our discussions with indigenous peoples groups and individuals at community, district and national levels suggested a general increase in the incidences of conflicts among indigenous groups themselves and with other neighboring communities or livelihood systems. All such conflicts were compounded by climate change. The agro-pastoral Ilchamus community of Baringo District, for example, has witnessed a long-standing conflict associated to climate change that has worsened their poverty. Climate change has affected Lake Baringo. There are fewer fish in the lake. The pastoral culture and religious practice of the community is disrupted; for instance, *kiserian*, a sacred site for sacrifice and worship to gods around the Lake is no longer accessible. Women used to worship at night but due to insecurity, they no longer can do so. Schools were destroyed through conflicts; youth dropped out of school and were recruited in intertribal wars or livestock herding to enhance security like in the case of the Mukutani in Baringo District (Lenashuru 2010).

The Senior Warden in charge of Maasai Mara National Reserve observed that although incidences of human-wildlife conflicts often occur within communities living in proximity with national game parks and reserves, these conflicts have, of late, increased in frequency and intensity and involve a wider vari-

ety of wildlife species than ever witnessed before. Baboons for example, were reported to have turned "carnivorous" in a section of Kajiado where they resorted to taking pastoralists' smaller stocks (goats and sheep) for a meal, almost by force. Elephants, especially in Narok South are interfering with daily livelihood activities including school attendance, fetching of wood and water by women, market related activities and herding of livestock. Social and cultural activities such as traditional rites of passage that ideally should be held collectively as a community have been postponed indefinitely. Furthermore, elephants, like never before, are destroying human property and lives.

This disruption of traditional and cultural practices that are core to the perpetuation of the community's identity such as rites of passage (naming, initiation, marriage, graduation to elderhood, age set formation ceremonies amongst others) due to prolonged drought and out-migration in search of pasture and water, and also due to unavailability of certain plant and tree species utilized in such ceremonies is a direct impact of climate change. An interesting thing to note here is that, in Loita Division of Narok South, where a section of the indigenous Maasai community are involved in the management and conservation of Naimina Enkiyio Forest (Forest of the Lost Child), only here was one of the major ceremonies—*Eunoto*—performed. The forests and general environmental integrity is still maintained under a highbred of customary institutions and indigenous knowledge and relevant state bureaucracy.

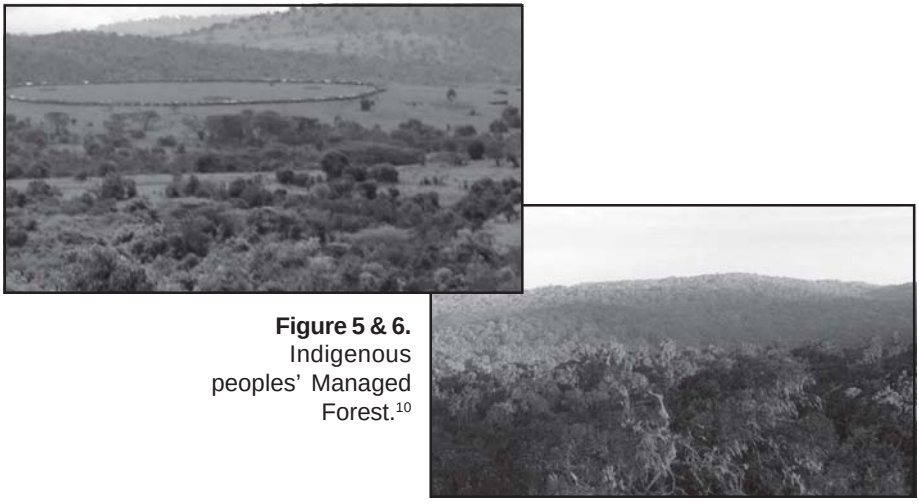


Figure 5 & 6. Indigenous peoples' Managed Forest.[10]

The ripple effect of these delayed rites of passage is a diminishing or immensely strained capacity of sharing and perpetuation of indigenous knowledge systems and practice among indigenous communities. Of significant importance in the transmission and sharing of indigenous knowledge and practices is the institution of *elatia* – a grouping together of several villages (often of the same lineage). *Elatia* facilitates not only the pooling together of labor, resources and security services, but, equally provides a rich and conducive environment for the enactment and enhancement of indigenous knowledge systems and practices. The dispersal of pastoral families in search of pastures and water beyond traditionally utilized regions coupled with land individuation have contributed to the near dissolution of this informal customary institution among the pastoral Maasai. The frequent, intense and prolonged droughts have negatively affected the indigenous communities' ability to predict seasonal variation which ideally would inform livestock mobility strategies. This has affected aspects of the community's adaptive capacity.

The problem of shortage of labor for pastoral production is further worsened due to out-migration from indigenous peoples' livelihoods systems arising from entrenched poverty associated to the loss of livestock on account of climate change. This situation has resulted to the increase of environmental refugees. The increasing level of poverty which has led to food insecurity and strain on basic survival has had negative impacts on the program of activities of indigenous organizations working in local indigenous areas. Access to food has now become the most urgent among other immediate concerns. These organizations are therefore compelled to look for alternatives to respond to the most felt community needs.

Increase of extreme weather related phenomena other than drought is also a big issue. Most recently, a huge and strong cyclone travelling hundreds of kilometers in width and distance was reported moving from west to east across Maasai land (southern part of Kajiado). It is attributable to increasing swaths of barren land due to a combined effect of deforestation, charcoal burning, overgrazing and cultivation on non-agricultural zones and prolonged drought. The current heavy rains and

floods pounding the country and pastoral rangelands in particular, have left a trail of death and despair. In areas such as Turkana, Narok, Kajiado and other parts of North Eastern Kenya, hundreds of families were displaced, property and infrastructure worth millions of shillings were destroyed and lives were lost. Such aftermath has further compounded the effects of drought and famine.



Figure 7. Effects of floods at the Central Business District of Narok town.

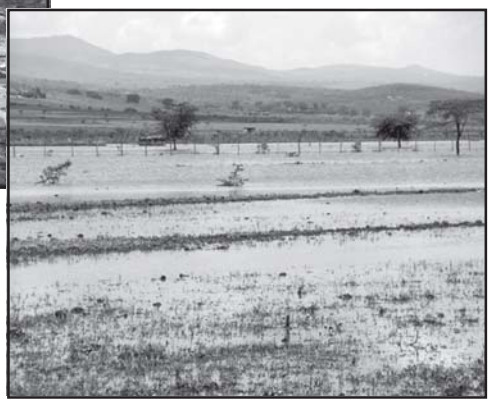


Figure 8. A submerged Maasai home at Suswa, Narok District. Photo by James Twala (January 2009).

Women around the world are already disproportionately affected by climate change. Two-thirds of the people living in extreme poverty are women. This is especially so because of the roles women play in households; they are key providers of food, fuel and water. The impacts of climate change directly affect the availability of these vital resources. In the customary pastoral context, women have reduced access to land and natural resources, reduced ability to earn a living and lesser voice in decision making. Loss of biodiversity can compound the non-security of women because many rural women in different parts of the world depend on non-timber forest products for income, traditional medication and nutritional supplements in times of food shortages. They also depend on the forest for a seed bank of plant varieties needed to source alternative crops under changing conditions (GBM 2004). Thus, loss of biodiversity challenges

the nutrition, health, and livelihoods of women and their communities. Furthermore, nutritional status partly determines the ability to cope with the effect of climate change and other natural disasters (WHO 2005).

In their desperate efforts for survival, indigenous peoples now experiment with alternative sources of livelihoods even if they themselves find these activities disdainful. These alternatives include charcoal burning and paid menial labor. Charcoal burning is the latest menace to environmental degradation because it contributes to GHG emissions and it reduces opportunities for carbon sequestration. Although carried out within indigenous peoples' environments, the activity is mostly conducted by members of non indigenous communities in Kenya. The activity equally affects the social, economic and political aspect of the local community as indicated by indigenous communities at Elangata Wuas in Kajiado District.

Deforestation and forests degradation have a direct impact on forest dwellers and forest dependent communities. Destruction of forests, coupled with forced evictions, diminishes opportunities for hunter-gatherers to survive on naturally available foodstuffs such as wild fruits and honey. For indigenous communities, forests are not just carbon sinks or commercial products for the markets; their value encompasses aspects of spirituality, water availability and medicinal value. This worldview of an interrelated commonwealth of life shared among indigenous peoples the world over corresponds with the general principles of an ecosystem approach to conservation and development.

Indigenous Peoples' Views on Drivers of Deforestation

In our various discussions with indigenous peoples' representatives at the community, district and national levels regarding the drivers of deforestation and forest degradation, the question of recognition or lack of recognition and protection of Indigenous Knowledge, Systems and Practices (IKSP) in REDD+ discourse featured prominently. Indigenous peoples expressed their conviction that from time immemorial, they have been prac-

ticing REDD, that is, conserving and managing indigenous forests for reasons other than carbon sinks. Forests management and conservation depends on local forest dwellers or forest dependent communities who see their connection to forests beyond the economic-carbon sink value. For these people, forests management and conservation permeate all aspects of their livelihoods including health, water and food security, spirituality, social and cultural value (Cheruyiot 2010).

Communal ownership of forests generally ensures access for all group members to tree resources. This access is generally defined by gender, season, state of the resource and other socio-economic and cultural factors. They protect the sustainability of resource by establishing closed seasons, bans on the cutting of live trees or particular methods of tapping the resource. These rules are designed to ensure perpetual use of resources and are generally responsive to changing external circumstances though these are still vulnerable to population pressure (Callisto and Juma 1996).

Because indigenous peoples attribute deep value to forests, they do not have any incentive or interest to destroy these and they actually despise the destruction of such an important resource. There was also a general feeling among indigenous peoples interviewed that the government is a poor protector of forests. To fortify this assertion, they often argued that the forests currently witnessing the greatest deforestation rate are those under the control of either the central government or local authorities. They therefore insisted that indigenous peoples and local communities should be supported in keeping their forests and they should be allowed to benefit from forests which they have conserved and protected over time.

A member of the indigenous Maasai community from Nakuru district observed that where indigenous forests are replaced by exotic plantations, the ecosystem is disturbed. He noted, for example, how certain species of exotic trees have had a negative impact on wildlife. He narrated that giraffes and elands are no longer common at a region that previously formed part of their habitat. The bees too are not getting the right flowers to make honey. The same respondent further commented that political under-representation is a major issue that gives rise to the

marginalization of indigenous communities. This also contributes indirectly to forest excision to outsiders and forced eviction of indigenous peoples from forests.

It is hoped therefore that in the design and implementation of the new REDD+ mechanisms, the rights of indigenous peoples will be both recognized and promoted. Such initiatives should be geared towards building the capacity of indigenous peoples based on IKSP and avoidance of further marginalization and poverty of these groups.

LAWS, POLICIES AND PROGRAMS: FORESTS & REDD

The policy and legal environment generally plays a critical role in clarifying resource tenure regimes, minimizing conflicts and providing guidelines for resolution of conflicts where and when they arise. By doing these, the policy and legal environment promotes security, and it standardizes norms. Of relevance in the context of REDD+ are laws related to land and natural resources governance and human rights. The Table below provides a brief overview of such key policies and laws in country.

Summary of Relevant Legislations

Table 4: Summary of Laws and Policies Relevant to the Forestry Sector. Source: Forest Cover and Forest Reserves in Kenya: Policy and Practice 1999; Forest Policy, Legal and Institutional Framework Information Sheet 2009.

LEGISLATION on LAND TENURE	
Law or Policy	**Comment**
Government Lands Act, Cap. 280, (revised 1984)	This Act deals with government land which includes forest reserves, other government reserves, townships, alienated and unalienated government land and national parks. In this Act, Section 3 gives the President powers, subject to any other written law, to "make grants or dispositions of any estates, interests or rights in or over alienated Government land." The powers of the President over government land also extend to forest reserves because these are administered under the government land tenure. This legislation is critical in the REDD+ mechanism with respect to indigenous peoples because most national parks and game reserves are found within indigenous peoples' ancestral domains.

Trust Lands Act Cap. 288 of 1962 (revised 1970)[11]	The Trust Land Act makes provision for rights in Trust Land and controls the occupation of land. The Act also sets out the procedures for the setting aside of land for a variety of purposes likely to benefit the persons residing in that area or for transfer to the Government. The Government may, by written notice to a council, state that a parcel of land is required to be set apart; compensation shall be paid for this land. Of particular relevance to forestry is the fact that the Act makes provisions for general conservation, protection and controlled utilization of trees and other forest products on land, other than gazetted Forest Reserves—essentially forests under communal ownership such as the Maasai Mau and the Naimina Enkiyio Forests. The extent of the deforestation and forest degradation witnessed in the Mau Complex, (administered under this Act) raises questions on the reliability and effectiveness of this legal instrument in the protection of forests in communal land.
Local Government Act, Cap. 265 (revised 1986)	This Act allows local authorities to alienate, own and sell land within their jurisdiction under the Trust Lands Act or to purchase land within the jurisdiction of other local authorities. This was partly the factor contributing to the excision of the Maasai Mau.
The Land Adjudication Act, Cap. 284 of 1968 (revised 1977)	This Act provides for the ascertainment and recording of rights and interests in Trust land. Land that is adjudicated under this Act is then registered under the Registered Lands Act or the Land (Group Representatives) Act. The Department of Land Adjudication and Settlement of the Ministry of Lands and Settlements is responsible for implementing this Act. This Act has potential implications in the management of forests in that the adjudication officer in declaring specific sections for adjudication is empowered to exclude areas of ecological importance such as watershed areas and hilltops from being converted into private ownership.
The Land Adjudication (Amendment) Bill of 1999[12]	The Bill gives a definition of "customary law" as "the law or custom relating to the tenure or user of land observed by the indigenous inhabitants ordinarily resident in the area where the land is situated and of which the person or group of persons concerned form a part". This Bill makes an attempt to recognize customary law and give it legal recognition. This recognition could have implications for forest management because customary knowledge and institutions could potentially play a greater role in forest management within land held under customary law.
POLICY AND LEGISLATION ON NATURAL RESOURCES	
Forest Act	The Forests Act, Cap. 385 of 1962 (revised 1982 and 1992) states that a "forest area means an area of land declared under section 4 to be a forest area." The Act addresses preservation, protection, management, enforcement and utilization of forests and forest resources on Government land.

Water Act, Cap. 372 of 1951 (revised 1972)	This Act makes provisions for the conservation, control, allocation and use of water in Kenya. The Act vests all the water resources in the Government. However, commercialization of water resources has been allowed in Kericho, Eldoret and Nyeri, with the formation of companies and contracts under the Local Government Act (UNCHS 1998). In Section 13(1) of the Act, the Minister is empowered to drain swamps and this could have adverse effects on forests. Section 14 of the Act gives the Minister power to gazette water catchments in the country. The Water Act is presently under review.
Fisheries Act, Cap. 378 of 1989	This Act contains two provisions relevant to forestry; it regulates trout fishing in forests and protects fish breeding areas. The latter provision is relevant to mangrove management. The execution of this Act falls under the Fisheries Department of the Ministry of Natural Resources which has signed a Memorandum of Understanding with the Forest Department for the management of mangrove forests gazetted as Forest Reserves.
Trespass Act, Cap 294 of 1963 (revised 1982)	This Act confers protection to land owned or occupied by virtue of freehold title, cultivated or enclosed land, or any forest area. It is relevant to the control of squatters in forest reserves. The effectiveness of this Act is limited by the low penalties imposed for infringement (MENR 1994).
Mining Act, Cap. 306 of 1940 (revised 1987)	The Mining Act vests all unextracted minerals, other than common minerals, under or upon any land, in the Government, which may grant such rights and interests in any other person. The Act also stipulates that on abandonment of an area that has been mined, the license holder shall fill up or secure the area, to the satisfaction of the Commissioner for Mines and Geology, in such a manner as to prevent persons or stock other than dogs or poultry inadvertently entering the shafts, pits, holes and excavations. Failure to secure the land thus shall constitute an offence with a fine of one thousand shillings or imprisonment of a term not exceeding three months. This Act has implications for forests in that, with the approval of the Minister, mining can be allowed in both gazetted and non-gazetted forest areas. Further, there is no legal requirement for the re-afforestation of the abandoned mining area. For example, quarrying has been going on in the Oloolua Forest Reserve despite protests from communities adjacent to the forest and a court order banning blasting within the forest (Kenya Forest Working Group 1999).

The Environmental Management and Co-ordination Act (EMCA) of 1999	This Act aims at the provision of a framework for integrating environmental considerations into the country's overall economic and social development. It specifically aims at harmonizing the various sector specific legislations that touch on environment to ensure greater protection of the physical and social environment. The Act emphasizes the principle of public participation and makes attempts at recognizing the cultural and social principles traditionally applied by communities in Kenya for the management of natural resources. This may provide a window of opportunity for the enhancement of IKSP, Free, Prior and Informed Consent (FPIC) and effective participation of indigenous peoples.
The Wildlife (Conservation and Management) Act, Cap 376	The Act was adopted in 1976 but since then eight amendments and revisions have been done with the latest being in 1990. The Act was adopted three years after Kenya ratified the CITES so it deliberately inbuilt most of CITES recommendations. As provided for in the Act, the process of gazettement and de-gazettement requires parliamentary approval so the heightened level of decision-making and legitimacy of the whole process ensures no grabbing of protected areas. The Act would be useful in the discussions around Carbon sequestration and REDD+.
The Agriculture Act, Cap 318	This Act promotes soil and water conservation and prevents the destruction of vegetation. The Act identifies shifting cultivation or the slash/burn agriculture, as the biggest threat to forest conservation. Under the Act, the Minister can make rules to prohibit, regulate, control clearing of land for cultivation, grazing or watering of livestock thus complementing the Forests Act. Enforcement of the Act has been the biggest problem especially on protection of riverbanks that have been cultivated resulting in soil erosion and heavy silt load on rivers.
The Antiques and Monuments Act, Cap 215	The Act has been used for gazettement of areas of historical importance and threatened heritage, e.g., the Kayas at the coast have been protected under this Act. Forest management decisions depend on the elders while other management decisions are vested with NMK. NMK's mandate does not adequately cover management of forest resources in these sites as most of the Kayas are now under threat from cultivation, charcoal burning and mining.
International conventions relevant for forestry signed by the country	
Convention on Biological Diversity-CBD Ramsar Convention	The Convention on Wetlands of international importance was signed in 1990.

Convention on International Trade in Endangered Species – CITES	The Convention on international trade in endangered species of wild fauna and flora was signed in 1979.
United Nations Framework Convention on Climate Change – UNFCCC	The Convention on Climate Change was signed and ratified by Kenya on August 30, 1994.
United Nations Convention to Combat Desertification – UNCCD	Kenya signed this convention in 1994 and ratified it in 1997.

Land Tenure and Property Rights in forests

Property rights regimes have a significant role in the management and conservation of forests. There are three tenure regimes in Kenya's legal systems which, to a larger extent, determine the conservation and management of forests. First is the individual tenure founded on English common law and embodied in Chapter 300 of the Registered Lands Act (Okowa-Bennum and Mwangi 1996). Second is the communal or customary ownership of land, a system characterized by complex and multilayered rules. In theory, this property right is no longer significant with the advent of land adjudication and consolidation programs. However, the system is still functional at local level, especially within indigenous peoples' environments. It is significant here because it is linked to the application of indigenous knowledge to the management of natural resources including forests. This regime continues to govern property relations even in those areas where individual tenure regimes are in existence. It mainly applies under *Trustlands* – areas where land has not been adjudicated and consolidated—and *Group ranches*

—areas where all members of the group have equal and guaranteed access to the resource in question.

State ownership is the third property regime system. This is applied to gazetted forests subject to state monopoly rights. Under the Forest Act, land may be declared a forested area by proclamation in the Official Kenya Gazette. By the same mechanism, any forests area may be declared as demarcated forest or nature reserve. Unfortunately, the state has proved to be an inefficient custodian of the monopoly of rights vested on it. The regime is often seen to be delinked from the social context on which it operates. The future of forests is inextricably tied to the future of the local communities because conservation of the forests depends upon the sustainability of local livelihoods. Attention to human issues will therefore be necessary (Okowa-Bennum and Mwangi 1996).

As a response to the often conflicting policy and legal environment, the government, albeit under pressure from the public and civil society organizations, has recently passed an ambitious policy document on land which makes a laudable attempt to harmonize and improve laws and policy on land tenure in the country. Sessional Paper No. 3 of 2009 on National Land Policy recognizes how individuation of title under the Registered Lands Act (Chap 300) "has affected customary tenure by undermining traditional resource management institutions and ignoring customary land rights not deemed to amount to ownership such as family interest ... communal rights to clan land (such as rights to *inkutot* land among the Maasai" (Article 65). In addition, Articles 180–183 are dedicated to the recognition of Pastoralism as a legitimate land use production system. Furthermore, Article 194 emphasizes the need to secure land rights of vulnerable groups including pastoralists, hunters and gatherers.

The Sessional Paper points at both colonial and post-colonial land administration systems as the foundation for the systematic undermining of traditional resource management institutions. This document indicates that these administration systems created uncertainty in access, exploitation and control of land and land based resources including forests. It asserts that successive governments in Kenya have been "poor stewards" of government land and Trust land resulting in the irregular

and illegal allocation of essential public land and the destruction of critical natural resources such as forests and water catchments areas. Most of the recommendations contained in the Sessional Paper No. 3 are captured in the Harmonized Draft Constitution.

The Harmonized Draft Constitution under Article 87 (Sections a, b, I, and j) on Environment and Natural Resources provides a legal framework for the respect of the integrity of natural processes and ecological communities. This article too promotes the conservation of habitats and species, and it ensures the use of renewable energy sources. As a consequence of the items provided by this article, social and cultural values traditionally applied by communities of Kenya are inclined to be protected. The draft stipulates the need for the country to work towards the achievement and maintenance of a tree cover of at least 10 per cent of the total land area of Kenya. It also calls for the promotion of public participation in environment management, in the protection and enhancement of intellectual property rights and indigenous knowledge of indigenous peoples, and in the assurance of biodiversity and genetic resources of communities. The enactment of the Forest Act of 2005 is also worth noting since it is a government legislation that provides guidelines for the management and conservation of forests in the country.

The Act recognizes the value of forests in conservation of biological diversity and habitat for wildlife, in stabilization of soils and ground water, in protection of water catchments and in moderation of climate change. All these will ultimately lead to the rationalization of forest resources for the socio-economic development of the country. The Act calls for "sustainable use" of forest and forest products in a manner which does not compromise the capacity of the forest and its use by future generations. "Sustainable use" also refers to the avoidance of abusing the carrying capacity of the forests' supporting ecosystems. This statement essentially adopts the ecosystem approach common among indigenous communities.

The Act applies to all forests and woodlands under the control of the state, local authority (Trust Land Act or community) and private entities. Most of the forests currently man-

aged by indigenous peoples groups are legally held in trust of the community of interest by Local authority under the Trustlands Act. The Act defines a "Forest community" as a group whose members have a traditional association with the forest for purposes of livelihood, culture and religion or a group that is registered as an association or organization engaged in forest conservation (Forest Act 2005).

One of the provisions of the Act (which would be of particular interest to indigenous communities) has to do with the "sacred grove" which refers to a grove that has religious or cultural significance to a forest community. By criminalizing the destruction of these sites, this provision ensures that they are protected (Forest Act 2005). In the endeavor to address the perennial problem of lack of community involvement in forests management, the Act (through Article 45) also provides for the establishment of Community Forests Associations (CFAs) which must then submit an application to the Director of KFS for authorization to participate in forestry conservation and management activities in the country. The role of these associations may include participation in the protection of the sacred groves.

One of the key elements of the Act is the promotion of an "Inter-sectoral approach to management of forest" through a representative Board. This Board consists of all relevant government Ministries and government agencies including individuals appointed by the minister. The composition of this board takes into account gender and regional representation (Forest Act 2005). The major role of the board is to coordinate and monitor inter-agency forestry activities in the country.

There are other openings in the Act which offer opportunities for indigenous peoples' representation. For instance, the Act makes provisions for the position of "honorary foresters" for a 5-year period. It also provides for the establishment of Forest Conservation Committee to manage forest conservancy areas. This committee has power (in consultation with the board) "to assist local communities to benefit from royalties and other rights derived from flora and fauna traditionally used or newly discovered by such communities." The chair of such a committee, however, would still be appointed by the board and he/she should have at least 10 years experience in forestry (Forest Act

2005). By virtue of this clause, the chance of indigenous peoples for the positions may be limited because the criteria of choice apparently favor those with experience based on a western type of education.

Furthermore, the Act calls for the establishment of a "Forest Management and Conservation Fund" which, in part, will be used in the conservation of indigenous forests and community-based forests projects, in the maintenance of sacred groves and areas of cultural, ethno-botanical or scientific significance and in the conduct of education and research (Forest Act 2005).

Although the Act, under Section 21, indicates that forest dwellers/forest dependent communities will benefit from forest produce "as it has been the custom of these communities," the provision is not without limitations. The communities' benefit would still be "subject to such conditions as may be prescribed and not for the purpose of sale" (Forest Act 2005). Under the Act, the Minister of Forestry and the Director of KFS remain with immense power over other government institutions prescribed by the Act. This situation almost nullifies the opportunity for decentralization and effective community participation in management of forests. Such arrangement appears to have been premeditated in the drafting of the Act.

The three policy documents reviewed here, though progressive in their attempts to promote environmental ethics, to address historical injustices and marginalization of a section of the population in the country, to harmonize the legal and policy environment around access to land and security of tenure and to ensure effective participation of the citizenry in governance, the realization of these aspirations remains to be seen. Although the three key policy and legal documents refer to the terms "marginalized," "vulnerable" or "minority groups" and some aspects of indigenous peoples such as indigenous knowledge, they still avoid explicit mention of the term "indigenous peoples." Furthermore, the Harmonized Draft Constitution, though recently passed by the national assembly, still awaits its fate with the national referendum expected around July 2010. The Forest Act, though passed by parliament, is yet to be fully operationalized. Similarly, the Sessional Paper on Land Policy is yet to be translated into law.

Kenya and Its Way to REDD:

Processes and Mechanisms of Designing, Implementing, Monitoring and Evaluating REDD/REDD+

With the coming of the "new green" which is REDD, the world (especially the developing countries) is now facing the challenge to mitigate climate change by preserving the world's tropical forests. Studies show that tropical trees store vast amounts of carbon, but each year, wide swaths of forests are cut down or burned thus releasing more greenhouse gases into the environment than all the world's cars, planes, and trucks combined. An estimated 24 per cent of global emissions can be attributed to land use change and forestry activities. In developing countries, the bulk of emissions result from conversion of forest to agricultural lands.[13] A study by Mackinsey discloses that deforestation in Africa will need to be reduced by 50 per cent over current rates in order for this continent to contribute to the aim of keeping temperature rise at 2°C or less.

Kenya is one among 14 countries in Africa that has pledged to participate in the World Bank's Forest Carbon Partnership Fund (FCPF) project to combat deforestation and climate change. The FCPF aims to reduce deforestation and forest degradation by compensating developing countries for greenhouse gas emission reductions.[14] Kenya affirmed its commitment to maximize its opportunities on the REDD program in early 2008. From February to May 2008, Kenya engaged in REDD preparation through several processes that included the appointment of a national REDD focal point through an official communication from the National Environmental Management Authority (NEMA) to the Kenya Forestry Service (KFS). Mr. Alfred Gichu of the KFS is currently the focal point.

Kenya submitted its R-PIN in June 2008 and this was accepted by the FCPF in July. In October of the same year, Kenya participated in the FCPF Participants' Committee meeting and signed its partnership agreement to formally become a REDD participant country.

The Kenyan Government has therefore embarked on a national process of preparation for an international climate change

regime that would reward countries for Reducing Emissions from Deforestation and Forest Degradation (REDD). Kenya obtained the support from the FCPF to prepare and implement a Readiness Preparation Proposal (R-PP**)** which summarizes the activities that would need to be undertaken to make the country "ready" to participate in REDD.[15] The Kenya Forest Service is the nodal agency and is working in collaboration with the REDD Technical Working Group in the preparation of the R-PP. The Grant Agreement for $200,000 for preparation of the R-PP has been signed by the Government of Kenya. The R-PP formulation process is being led by the Government of Kenya with the assistance of appropriate and necessary external expertise.

A joint mission (Government of Kenya, Development Partners and the World Bank) to Kenya took place from November 16 to 20, 2009. The aim of this mission was to support Kenya in launching the preparation of its R-PP in a timely, coordinated, consultative and transparent way. The mission also aimed to ensure that different REDD-related initiatives contribute in a coordinated fashion to the goal of making Kenya ready to participate in REDD. Since, the mission was expected to support the ongoing national REDD process, it bought together all main partners and created an open space for information exchange. The mission made certain that key local partners (government agencies, civil society and private sector) and development partners reached an agreement over a coordinated work plan leading to the development of Kenya's R-PP.

World Bank Mission to Kenya

The World Bank mission team held bilateral meetings with government representatives, the REDD Technical Working Group and development partners prior to the official start of the mission. The mission team held meetings with the Permanent Secretaries from the Ministry of Forestry and Wildlife and the Ministry of Environment and Mineral Resources. According to the Mission's report, there is an immense interest and support for REDD/REDD+ processes in the country as indicated by Table 5.

Table 5. Countries indicating support for REDD. Source: WB's Mission to Kenya report

Agency/Country	Support/Interest	Target
European Union	Provide 23 million Euros as financial support	To support community forestry activities
Finland	support for the Miti Mingi Maisha Bora II Project (2009-2014)	With a budget on REDD and support to ASALs, forest sector reforms
USAID	Support to land tenure issues including customary rights	Dispute resolution in the Upper Mara - useful for REDD readiness
DANIDA	Support to National Climate Change Response strategy	Broader framework for Climate change related activities
JICA	Indicated willingness to get involved	

In addition to the interest and support of several development partners in the forestry and land use sector, the coordination among all partners would provide additional stimulus and momentum to the REDD readiness process in Kenya. Discussions between the World Bank mission team and government officials reflected a strong commitment from the Government to move forward on REDD, to integrate it into the NCCRS and to ensure that communities benefit from it.

On REDD/REDD+ Readiness in Kenya, the Mission observed that deforestation and forest degradation in the country currently estimated at 12,000 ha per year is a serious issue. This issue especially concerns Arid and Semi-Arid Lands (ASALs) which, according to the report, are currently under severe threat from deforestation and forest degradation, but which could potentially be reforested to add to the green cover in the country. The NCCRS for Kenya was launched just before COP 15. It contains a chapter on forestry in which REDD is highlighted. There is thus a linkage between REDD+ activities and the national climate change plan. It is hoped that this linkage is strengthened at the time of the implementation phase. The reform in the forestry sector is also underway so there is an opportunity to undertake policy and institutional reforms pertinent to effective implementation of REDD+ throughout this process especially with regard to the rights of indigenous peoples and local communities.

On the management of the REDD/REDD+ Readiness processes in the country, the processes are coordinated through four thematic groups: Technical Working Group on REDD, Policy and Institutional Working Group, Methodology Working Group and Consultation and Participation Working Group. The REDD Technical Working Group membership includes representation from key ministries, CBOs and NGOs. The main task of this group is coordination of the REDD/REDD+ readiness process. The composition of the REDD WG and its Terms of Reference are attached as Annex 6. The working group reviewed the drivers of deforestation as contained in the country's R-PIN with the aim of ensuring a comprehensive identification of the drivers, underlying causes, existing gaps and actors that should be engaged in the process of developing the policy and institutional components of the REDD strategy options. The group is also expected to provide guidance in the establishment of an overall consultation plan for engaging the key actors in identifying ways of addressing these underlying causes. The outcomes of the discussions of the thematic working groups formed the building blocks for the inputs into the county's RPP.

The Methodology Working Group, for its part, focused on the need to establish Reference Emission Level (REL[16]) setting and sources of key carbon emissions. It also worked on setting up monitoring, reporting and verification (MRV). The Consultation and Participation Working Group, on the other hand, elaborated on how to ensure effective consultation and how to develop good participatory mechanisms and structures to enhance the process. It identified existing national level and local institutions as well as decentralized participatory structures in place such as the Forest Conservation Committees (FCC), Community Forests Associations (CFAs) and CBOs to be used as mechanisms for rolling out the consultation process. It was, however, acknowledged that some CFAs do not include communities living adjacent to the forest so it was suggested that KFS make provision for the inclusion of these communities.

The WB Mission to Kenya proposed the expansion of the composition of the REDD+ Technical Working Group to include further representation from other sectors and NGOs particularly the Ministry of Lands, Office of the President and the Prime

Minister's Office. The composition and role of the National Steering Committee also needs to be defined. It is important to note that the roles and responsibilities of the two bodies (REDD TWG and the National Steering Committee on climate change/REDD+) need to be clarified. Several multi-stakeholder workshops were also held to promote broad participation and contribution of the various stakeholders.

The WB Mission noted with appreciation the efforts made by the government to strengthen the Kenya Forest Service through the establishment of a Climate Change Unit team to ensure an efficient delivery of the Readiness program within the KFS. The REDD agenda will require regular interaction and coordination with a broad range of stakeholders. The mission also recommended the formulation of a communication strategy to reach out to all relevant stakeholders in a timely manner. The mission equally noted that there was great expertise and knowledge in REDD related issues among government officials, development partners, civil society and private sector organizations. The mission suggested that civil society and private sector entities should be proactively involved in designing the national REDD strategy for Kenya.

During the development of the NCCRS, which has a component on REDD, the government has conducted several multi-stakeholder workshops to sensitize the nation on climate change and to seek the views of citizens in order to develop the strategy in an inclusive manner. Furthermore, the REDD+ consultative working group created by KFS has held several meetings and workshops in the past with key stakeholders including forest dependent communities and government sectors with the aim of sensitizing them on REDD.

Key Actors in the Development, Implementation and Monitoring of REDD+ Policies and Activities in the Country

Table 6. Key Actors. Sources: Kenya's R-PIN; WB Report 2009.

Agency/Organization	Roles
Kenya Wildlife Service (KWS)	The lead agency in charge of protected areas so it has capacity to do inventory and monitoring in protected areas; can focus on habitat change and wildlife monitoring.
Department of Resource Survey and Remote Sensing (DRSRS)	A government agency for natural resource surveys, remote sensing, aerial surveys, vegetation mapping and database development. Given its expertise in time series animal and habitat mapping, it was able to develop a climate change warning system.
Regional Centre for Mapping of Resource (RCMRD)	It promotes development and use of geo-information for natural resource management in Eastern and Southern Africa.
ICRAF	Undertakes forestry productivity studies in agro-forestry systems.
UNEP	Has a unit specializing in deforestation and forest degradation monitoring with a long term interest in Mt. Kenya and Aberdares.
WWF	Involves in forest inventory and monitoring in the coastal regions and in monitoring of population changes in Mara and Mau forests.
Forest Action Network (FAN), Green Belt Movement (GBM) Kenya Forest Working Group (KFWG), National Association of Community Forest Associations (NACOFA), Nature Kenya	Have been playing critical roles in bringing issues relating to forests to the attention of the public holding the government accountable on these issues; some like GBM implement afforestation and reforestation projects. GBM has projects on carbon sequestration
MPIDO[17]	This is an indigenous organization working with the Maasai and other indigenous peoples like the Ogiek, with a mission to promote, facilitate, and create an enabling environment for securing human rights including natural resources rights for sustainable livelihoods. MPIDO has also played a big role in supporting indigenous peoples in presenting their views to both the Constitution of Kenya Review Commission and the Njonjo Commission.

Environmental Research, Mapping and Information System for Africa (ERMIS)	Works with communities to establish monitoring protocols in indigenous area.
International partners (World Bank, IUCN, Clinton Foundation, USAID, Finnish Embassy, European Commission, FAO, UNDP, UNEP, and JICA, DFID and DANIDA)	Involved in funding various projects related to climate change and REDD.
Government Ministries (Ministry of Forestry and Wildlife, Ministry of Environment and Mineral Resources, Ministry of Finance, Ministry of Agriculture, Ministry of Energy, Ministry of Development of Northern Kenya and other Arid Lands); Kenya Forestry Research Institute	The government strategy is aimed at mainstreaming all interventions on Climate change across all relevant ministries.
Kenya Climate Change Working Group (KCCWG)	A consortium of civil society organizations involved in climate change whose objective is to advocate for a positive policy and legislative framework that puts into account the effects of climate change on human development focusing on vulnerable sectors of the economy.

Indigenous Peoples' Involvement in REDD Processes in the Country

Indigenous peoples' involvement, both at the Technical Working Groups' level and during the consultative workshops under the broader climate change activities and the REDD+ specific processes, were minimal to say the least. The so-called "consultations" were often just information dissemination meetings. A quick look at the composition of the REDD/REDD+ TWG (See Annex 8) shows how the government perceives the contribution of local communities and indigenous peoples in the development of REDD+ policies and strategies. Some of the workshops almost literally translated to consultation between gov-

ernment ministries and agencies on one hand and the development partners on the other. In the process of developing the REDD+ Readiness Preparation Proposal (R-PP), the KFS hosted a workshop on November 16-17, 2009 attended by 41 participants. In this workshop, the bulk of representation came from government and multilateral Institutions. There was only one indigenous peoples' representative from IPACC and this representative also doubles as a WB consultant in his personal capacity.

The proposed institutional arrangement for addressing climate change under the NCCRS has no direct reference to indigenous communities in the country. Least mentioned and represented in climate change and REDD+ processes are women and the youth.

Data on REDD and Future Activities on REDD

Forest inventory is a prerequisite for management planning and decision making. This is also necessary in meeting basic international good practices and in fulfilling international conventions and multilateral agreements (CBD, RCC, etc.). One of the mandates of the Methodology Working Group is to look at the status of forestry, carbon data and key sources of carbon emissions in Kenya. This working group is also tasked to monitor co-benefits, institutional needs and capacity for Monitoring Verification and Reporting (MVR) in the country. On the status of forestry data in Kenya and data on carbon stocks, the Department of Resource Survey and Remote Sensing (DRSRS) is the institution responsible for inventory for land use. Actual inventory of carbon stock is handled by KFS.[18]

The Methodology Working Group reported a total of three different National forest inventories in the country since independence. One of these inventories was undertaken in 1969-1970 in plantations and natural forests in Kenya. The second was done in 1989-1993 in plantation forests covering almost all plantations. The third inventory in 1993-1994 was based on regional ecosystems which included Mt. Elgon and Arabuko Sokoke. In 2000, FAO/DRSRS conducted Afri-cover mapping

on land use on all types of land use in Kenya (no stocking) (WB Mission Report 2009).

It is therefore evident that data on forests and carbon stocks currently available in the country are quite old. It is hoped that these data will soon be updated when the on-going Forest Resource Inventory under the World Bank supported Natural Resource management Project (NRM) is completed and released. With financial support for actual forest mapping from various stakeholders such as the Clinton Foundation and the World Bank, appreciable interest in the country on this front is already building up. The main challenge of the government here is how to coordinate all funding activities to maximize results.

The future of REDD activities

The future prospects of REDD programs in the country are promising, at least from the government's coordination efforts and the development partners' impressive interest. UNDP and UNEP have already pledged support to KFS and Kenya Forest Working (KFW) group for carbon accounting capacity development. Through financial support from the Clinton Foundation, plans are in advance stage for the development of a concept on MRV. KFS is expected to convene a meeting with the REDD TWG to discuss the process for rolling out the initial level of Information Education and Communication (IEC) to the regional and local levels. The country, guided by the REDD Technical Working Group (TWG), aimed at finalizing and submitting its R-PP by mid April 2009.

Indigenous Peoples' Concerns over REDD

While the REDD+ mechanism aims to slow down the rate at which the remaining primary and managed forests are degraded and deforested, to support livelihoods, to maintain vital ecosystem services and to preserve globally significant biodiversity, this mechanism is not without challenges in the context of indigenous peoples in country.

Challenges

- There is generally a low level of awareness among indigenous groups on REDD/REDD+ as technically defined in scientific jargon and an equally low capacity to engage in "carbon markets," especially the private sector driven mechanism. The indigenous organizations also lack financial and technical capacity for leadership within indigenous communities;
- As indicated elsewhere in this paper, there is minimal and ineffective participation of indigenous peoples on national processes of climate change and REDD+ including the processes leading to the establishment of both the NCCRS and Strategy on REDD+;
- There is a misconception existing within global discourse and with national governments' policy makers that over emphasize the role of forests as carbon sinks while downplaying other critical factors such as the ecosystem or holistic worldview of indigenous peoples that encompass their spirituality, medicinal value and social aspects besides the economic and ecological aspects. With its negative consequences on the interest of indigenous peoples, this misconception is highly problematic. This challenge is also related to the concern on "plantations" which presents the risk of replacing indigenous forests cover with exotic types which may not necessarily serve as substitutes for the socio-cultural uses of particular species;
- Often, there seems to be a general disregard or devaluation of Indigenous Knowledge, Systems and Practices which may, in fact, work to compliment those which are considered as "scientific options" for adaptation to or mitigation of climate change;
- There is a lack of recognition of climate change as a human rights and social equity issue. If it were present, this recognition would have necessitated actions that respect and protect rights of local communities including indigenous peoples especially in the context of international human rights instruments like the UNDRIP. The

same recognition would also have promoted the principle of Free, Prior and Informed Consent beyond the so-called "consultations" which are often just information meetings;

- The conflicting policy and legal framework create loopholes open for abuse of the law as highlighted under the policy and laws analysis in this paper. The enforcement of compliance to existing laws and regulations requires effective and efficient governance devoid of corruption. Widespread illegal logging, for example, can be attributed to this question of corruption and bad governance;
- The absence of field-based training on Community Carbon Forestry Mapping Technologies and Approaches for piloting of local REDD+ system is equally of great concern because this undermines the level of preparedness of local communities to effectively engage in the system.

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

Discussion

Human Rights-Based Approach to Climate Change and REDD

The current climate change debate, at all levels, has traditionally focused on scientific, environmental and economic aspects thereby sidelining human, social and cultural aspects of climate change despite the fact that climate change has adverse impacts on human lives and living conditions in communities around the world. Many indigenous peoples and local communities are indeed in the line of fire of climate change and their lives and living conditions are severely affected by the changing climate.

While the negative impact of climate change is indiscriminate to all sectors, certain sectors are more vulnerable due to

other compounding factors. Due to their historical marginalization, high poverty levels, reliance on natural resources and fragile environments, pastoral and hunter-gatherer indigenous peoples are highly vulnerable to shocks like drought, famine and floods. The devastation of not only pastoral livestock but also of entire livelihood systems in certain regions by the current drought and (most recently by floods) in the country is a testimony to this fact. Climate change is therefore not only an environmental and economic issue but more importantly, a livelihood issue.

A number of indigenous peoples and communities around the world have already been severely affected by climate change and climate change-related impacts. This has resulted in relocations and has adversely affected indigenous peoples' well-being, livelihoods, cultures and identities. As recently discussed by John Henriksen, member of the Saami parliament, to the IIPFCC meeting at Copenhagen (COP 15), indigenous peoples are *not only* faced with direct adverse impacts of climate change, caused by, among other factors, extreme weather conditions, changing rainfall, draught, and rising sea-levels, but they *also* suffer from effects of mitigation measures and actions which are taken in response to climate change. Thus, according to Henriksen, indigenous peoples pay a "double negative price" for climate change; they suffer from direct adverse climate change impacts as well as from actions or measures taken to stop climate change from occurring or developing further. Often, mitigation efforts such as forest conservation, carbon offsetting and wind power installations which require waters and lands, turn to indigenous peoples' lands and waters.

It is beyond any doubt that climate change and climate change-related effects have hampered indigenous peoples' enjoyment of freedoms and privileges provided by human rights, collective property rights and such other rights inherent to free men and women. Human rights are universal, indivisible, interdependent and interrelated. In other words, universal human rights are applicable regardless of the legal or political system in the country concerned, and the provisions cannot be interpreted in isolation; these provisions have to be regarded as a complete body of international law.

Human rights standards establish clear obligations for States and grant specific rights for individuals, groups and peoples. States are not only obliged to take concrete action or abstain from certain actions to guarantee that beneficiaries can enjoy their rights and freedoms, but also ensure that actions of third parties do not deny beneficiaries from enjoying their rights and freedoms. This obligation of the State is crucial in relation to mitigation actions, including REDD+, which in some instances, will be undertaken by third parties following State approval. Because of the intricacies involved in arranging climate change mitigation actions, international human rights standards are useful in underscoring the fundamental moral and legal obligations of the State to protect and promote full enjoyment of rights enshrined in universal human rights instruments. In the context of REDD/REDD+, States (including Kenya) have generally been reluctant to accept human rights as an integral part of the REDD-scheme. It has been argued that a flexible REDD/REDD+ scheme is necessary in order for this to be responsive to national circumstances. The flexibility requirement, however, cannot and should not prevail over universal human rights and fundamental freedoms.

In view of the foregoing issues raise, the international principle of "common but differentiated responsibility" which recognizes different clusters' apparent contribution to and capacity to respond to the challenges of climate change should be integrated into all intervention efforts including the NCCRS and REDD/REDD+ in the country.

It is imperative that in the government of Kenya's effort to develop a negotiation language or text in the on-going climate change discourse under the five thematic areas of adaptation, mitigation, financing, technology transfer and capacity building within the UNFCCC framework, a language recognizing, protecting and promoting human rights, including the rights of indigenous peoples and local communities, should be well-established. The spirit and letter of the Country's Vision 2030, Harmonized Draft Constitution and National Land Policy, all of which recognize the historically entrenched social inequality and marginalization of certain regions of the country or groups of people, should be upheld and translated into reality even within the context of REDD+.

Carbon Markets as the main means of funding

The existing carbon market mechanisms, including Clean Development Mechanism (CDM), Joint Implementation (JI) projects, REDD and REDD+ are all wholly or partly "market driven" initiatives. Being so, these mechanisms are likely to perpetuate further marginalization against indigenous peoples who have a low capacity to fully and effectively participate. It is only fair that in attempts to avoid climate change injustices which are likely to arise from such market based mechanisms, indigenous peoples, forest dwellers and forest dependent and pastoral communities who have been engaged in environmental conservation for ages be protected and be made as foremost beneficiaries.

In order to shield local and indigenous communities from the negative impact of climate change in general and market driven interventions in particular, these mechanisms ought to recognize and uphold the principles of "full and effective participation" through free, prior and informed consent (FPIC) and respect to and protection of human rights at all stages of project design and implementation and in benefit sharing especially as stipulated in the UNDRIP.

National Climate Change Response Strategy (NCCRS)

The process leading to the development of the Zero Draft of the NCCRS and R-PLAN was far less than participatory, at least on the part of local communities including pastoral communities and hunter-gatherers. In the proposed Institutional arrangement for coordination of climate change related activities, local communities, indigenous peoples, including pastoralists and hunter-gatherers, are locked out. In response to this gap, we propose the creation of a Working Group on Indigenous Peoples and Climate Change in appreciation of the extreme vulnerability of this group and the potential value of its members' indigenous knowledge in adaptation and mitigation efforts. This group shall report to the National Climate Change Coordinating Unit (CCCU).

It is also evident that Indigenous Knowledge, Systems and Practices have great potential in providing complimentary op-

tions to scientific knowledge for adaptation and mitigation. The NCCRS Action Plan, for example, should recognize the critical role played by livestock mobility in the pastoral ASAL areas as one of key adaptation strategies to climate change. Deliberate efforts within the national policy framework should be put in place to provide for "livestock corridors" including cross-border areas to ensure access to dry-season grazing areas.

REDD Mechanism

In relation to REDD/REDD+, much progress has been made in the country such as the preparation of the National Climate Change Response Strategy (NCCRS) and the R-PIN. There is also an ongoing participation in the World Banks' FCPF. In addition, concerted efforts are being made to establish legal and institutional framework to achieve the REDD/REDD+ objectives. A number of challenges to REDD implementation, however, are still to be resolved in order to develop a REDD+ mechanism that is able to deliver socially-equitable, environmentally-effective, and economically-efficient emission reduction. Some of the challenges identified include: Monitoring, reporting and verification for national inventory purposes, determining the role of indigenous peoples in MVR, capacity building, minimizing perverse incentives and ensuring cordial policy environments on land tenure.

At the national level, high quality national greenhouse gas inventories are the backbone of international climate change regime. High quality data from land use, land use change and forestry, which is consistent and comparable across developing countries, are also critical requirements especially if REDD/REDD+ is to be integrated into the international market. Historical trend data on deforestation are key starting points, but these need to be supplemented with data on emissions or changes in carbon stocks.

In terms of achieving emission reductions, it is important to recall that deforestation and forest degradation are caused by a number of multiple drivers. These include: the lack of secure land tenure systems and clearly defined property rights, insufficient capacity for effective law-enforcement, corruption, change

in land use, population pressure and poverty, among others. The government will need to redress policies that have adverse implications on the forestry sector at all levels.

Any new REDD/REDD+ mechanism therefore will need to be flexible and it needs to evolve as national and regional circumstances change overtime. Actions on REDD/REDD+ should aim to work towards the long-term "shared vision" for climate change mitigation that is necessary to meet the ultimate goals of both local and indigenous communities and the Convention (GCP 2009).

The Kenyan government should take a cue from the recent positive gesture by the World Bank under the FCPF Charter in which it decided to apply safeguard policies in recognition of the special circumstances of indigenous peoples of the world. The same charter also includes adoption of new rules recognizing the need to respect the rights of indigenous peoples and forest dwellers in accordance with applicable International obligations. Furthermore, the World Bank has availed of a small fund to support indigenous and local participation in the REDD+ planning activities (Forest peoples program Oct. 2009).

Building capacities for an effective REDD+ mechanism not only at the State level but also within indigenous peoples and local communities is critical. This may include support for monitoring systems, strengthening existing customary institutions, technical assistance, trainings and educational programs. These undertakings will enable the understanding of opportunities and risks associated with the REDD+ initiatives.

Role of indigenous peoples' groups and indigenous peoples' civil society organization

Both indigenous peoples groups and organizations have an apparent lack of capacity to engage in climate change and REDD+ processes to ensure the benefit and protection communities. There is therefore need to strengthen networking and partnership of indigenous peoples' groups, leaders and organizations to promote cross-organizational learning, leverage resource utilization, reduction of wastage, avoidance of duplication, creation of synergies and provision of larger platforms and louder

voices to advocate for indigenous peoples' concerns. The recent establishment of a National Steering Committee on Climate Change and REDD by a consortium of indigenous groups and organizations is a step in the right direction. The committee which draws membership from indigenous organizations and groups across the country is mandated to monitor the policy environment, develop an indigenous peoples' national strategy on REDD/REDD+ and provide a link between global, national and grassroots processes on climate change and REDD. One of the key outputs of this committee is the development of the recently completed National Strategic Plan on indigenous peoples and REDD+. Resource and logistical support to this committee from indigenous groups and organizations, government institutions and development partners will be critical.

To advocate for their rights and concerns, indigenous peoples' groups and organizations in the country should utilize the window of opportunity provided by the government's efforts to reform and harmonize the legal and policy environment with respect to climate change, REDD+ and land tenure. Specifically relevant here are the Harmonized Draft Constitution, Sessional Paper No. 3 on National Land Policy, Forest Act 2005, National Climate Change Response Strategy (NCCRS), National Strategy on REDD+, Vision 2030 and the National Action Plan on Human Rights. Indigenous groups and organizations should, for example, consider the value of Community Forests Associations (CFAs) as possible frameworks for negotiations within the context of the REDD+ mechanism.

Also important in this endeavor is the urgent need to profile forests that are presently being managed and conserved by indigenous communities according to location, size, resource diversity and carbon sequestration potentials. It is essential therefore to explore options for linking local and national REDD+ verification processes and to consider carrying out field-based trainings on Community Carbon Forestry Mapping Technologies and Approaches, Community Measurements of Carbon Pools, Community Analysis of Carbon stocks and Community REDD+ Reporting.

Emergency Response/Disaster Risk Management

Climate change has not only affected indigenous peoples' livelihoods but it has equally put a strain on the ongoing programmatic work of indigenous organizations. Long term intervention programs including education, policy engagement and advocacy conducted by indigenous organizations have, in the short run, become secondary in the face of starvation and poverty. There is an urgent need for emergency response especially in the areas of food security and education among indigenous peoples' groups in the country. A significant portion of indigenous peoples' livelihoods have been disrupted and shattered as a consequence of the prolonged drought and ongoing floods in the country. Besides the overwhelming hunger and starvation experienced by communities, the education sector is seriously affected in terms of provision of school fees for children especially those at the secondary level. As a consequence, dropout rates among school going children has increased.

Gender and Climate Change

The IPCC acknowledges that disasters affect men and women differently due to variance in exposure to risk and risk perception. Addressing the social and gender dimensions of climate change poses many challenges but these are not insurmountable. It requires gender mainstreaming in climate change response activities which include sustainable and equitable development and a clear focus on adaptation and mitigation (WHO 2005). Equity and social justice cannot be achieved without recognizing both the differences in vulnerability and strengths of women and men as well as the various factors contributing to their vulnerability. This recognition is critical in any prospective attempts to address the consequences of climate change in gendered livelihoods. Gender-sensitive research is necessary towards this endeavor.

Many indigenous women are denied access to property rights as a result of discriminatory statutory and customary law. Women suffer marginalization with regard to land ownership due to patrilinear systems of land inheritance. They become virtually destitute in the case of widowhood or divorce. Women

are further excluded from decision-making processes in land transactions and the administration of communal ownership and group ranches. The age-set based traditional leadership system among the Maasai community in both Kenya and Tanzania, for example, has negligible opportunities for women's participation in leadership.

Indigenous communities should therefore revise existing customary laws and practices to eliminate discrimination against women especially with regard to their property rights. Their full participation in decision-making at the community and national levels should be ensured. The government should also review existing discriminatory laws and regulations affecting the property rights of indigenous women particularly those of widows and divorced women. The need, for example, to incorporate or enjoin a wife into the land titles and deeds of her husband may be emphasized.

Beyond recognizing and addressing the general concerns of indigenous peoples in the country, any REDD/REDD+ mechanism should take into account the unique vulnerability of indigenous women to avoid further entrenchment of marginalization.

CONCLUSION

Climate change presents one of the greatest challenges for humanity in the 21st Century. The extent, both in scale and intensity, transcends households, local, national, regional and international boundaries. Aside from the obvious and direct influence on the physical and economic environment of earth systems, the impacts of climate change also affect social, cultural and political processes. The level of discourse and negotiations as embodied within the UNFCCC framework and the global hype around the topic with a disproportionately slow pace in terms of outputs attest to this fact. As recognized by the IPCC, contribution to pollution/global warming (a predominantly human affair) is a differentiated phenomenon that pits the rich nations against the poor just as much as the impacts of global warming do. Thus, the principle of *common but differentiated responsibility* becomes critical in the endeavor to address the problem.

Kenya as a member of the global village is no exception. The country has experienced more than its equal share of the negative impacts of climate change in the form of droughts and floods. These traumatic events resulted to decimation of livestock, total crop failure, crippling of the key sectors of the economy and disruption/destruction of entire livelihood systems in certain regions of the country. That climate change is taken to be a serious matter in the country is evident with a flurry of activities including active participation in the regional and global negotiation processes and development of policy documents targeted at establishing an enabling environment for eventual stabilization of GHG emissions. One of these mitigation activities is the REDD program. Kenya, as a REDD country under the WB FCPF, is in the advance stages of operationalizing its REDD program. However, enormous challenges such as harmonizing the legal and policy environment, establishment of institutions of governance and educating the public on REDD remain daunting tasks. Common but differentiated responsibility is as true at the global level as it is at the country level as exemplified by the situation of indigenous peoples.

Kenya is home to several indigenous peoples' groups representing about 25 per cent of the country's total population. These indigenous groups are often categorized into pastoralists/agropastoralists and hunter gatherers. While notions of indigeneity are still problematic in official government circles, it is a reality that these groups form a significant portion of the so called "marginalized and vulnerable groups" in the country. This historical marginalization and vulnerability associated with these groups' reliance on nature-based livelihoods makes indigenous peoples more susceptible to the impacts of climate change than any other group in the country. Despite their vulnerability, indigenous peoples' worldview, customary institutions and indigenous knowledge, which have evolved overtime in response to changing environment, may provide opportunities for supplementing and complementing scientific efforts towards adaptation and mitigation. The REDD mechanism provides an opportunity to create synergies.

A well-designed and implemented REDD program will not only provide a cost-effective means of reducing GHG emissions

but also serve as an additional source of income for communities and governments where payment is directly received. REDD equally provides an opportunity for political and financial support toward forest conservation. The challenge with REDD remains on how to provide these benefits in a manner consistent with the livelihoods of indigenous peoples, local communities and forest dwellers. The State remains a key player in efforts to establish safeguards and to anticipate potential threats from REDD.

The government should therefore go beyond the mere recognition of the marginalization and vulnerability of indigenous peoples. It should establish legal frameworks premised on respect, protection and promotion of human rights ideals based on international human rights standards with specific reference to the UNDRIP. In the context of REDD, this framework should entail building the capacity of indigenous peoples both to adapt to and mitigate climate change. This framework should likewise incorporate principles of full and effective participation, FPIC and respect and promotion of IKSP.

RECOMMENDATIONS

Recommendations to the Kenyan Government

1. Overall, a human rights-based approach should be adopted by the government in all its strategies, interventions and policies with regards to climate change and REDD. In the context of indigenous peoples (pastoralists and hunter-gatherers), the government should take all the necessary steps, in consultation with indigenous peoples in the country, to ensure prompt ratification of ILO Convention No. 169 on Indigenous and Tribal Peoples and the United Nations Declaration on Rights of Indigenous Peoples (UNDRIP);
2. The government should put in place deliberate measures to create awareness, to promote effective and full participation of indigenous peoples on REDD and REDD

related processes, to establish safe guards and to ensure equitable benefit sharing where applicable;

3. The government should explore opportunities available in the Indigenous Knowledge Systems and Practices to strengthen traditional customary institutions and integrate indigenous knowledge to national strategies for adaptation and mitigation to climate change. The value of pastoral mobility within the rangelands should be recognized and facilitated;
4. In the long term, disaster risk management strategies including Early Warning Systems and timely intervention to avert enormous losses should be strengthened in terms of technology and funding. It is highly recommended that livestock insurance schemes and hay/pasture bank modeled in the design of the National Cereals and Produce Board and a school fees bursary kitty be established;
5. In response to the disruption of livelihoods and food insecurity, emergency support in the form of food relief and possibly re-stocking in the immediate short term is recommended;
6. Promotion and entrenchment of an inter-sectoral approach within government bureaucracy and an ecosystem approach to all efforts toward mitigating and adapting to climate change are worthwhile.

Recommendations to indigenous peoples' groups and organizations

1. Indigenous peoples' organizations are encouraged to develop concrete strategies for data collection, research and documentation, especially on indigenous knowledge, systems and practices relevant to climate change and REDD+;
2. These organizations are encouraged to establish and strengthen collaborative and networking efforts within and across themselves at all levels and with research institutions and development partners;

3. Indigenous peoples' constant and strategic advocacy engagement at all levels is strongly recommended. Advocacies should seek to influence national level policies by using the opportunities under the REDD mechanism. Through this mechanism, gains offered under the National Land Policy, the Forest Act 2005 and the draft constitution can be translated into reality;
4. Develop the capacity of indigenous leaders and organizations to effectively participate in the global negotiation processes under the UNFCCC thematic areas of adaptation, mitigation, financing, capacity building and technology transfer. To anticipate the real challenge of "elite capture," deliberate efforts which are community-centered and community-driven must be made to establish structures for negotiations within the REDD mechanism;
5. Indigenous communities should expeditiously initiate efforts toward profiling of forests currently under the management or ownership of indigenous peoples groups in the country. They must also conscientiously carry out carbon resource mapping and awareness/education campaigns.
6. Indigenous peoples should strengthen joint efforts to ensure smooth operations and productivity of the newly established National Indigenous Peoples Steering Committee and the realization of the objectives spelled out in the recently concluded indigenous peoples' National Strategic Plan on Climate Change and REDD.

Recommendations to development partners and the International Community

1. Donor community, research institutions and private sector should contribute in the areas of information sharing, research, strengthening traditional customary institutions, use of Indigenous Knowledge, Systems and Practices and technological transfer to build the capacity of indigenous groups in the country both to adapt to and mitigate climate change;

2. Support to indigenous peoples' groups and organizations to realize their aspirations of self-determination through exposure at the global arena, financial support to long term intervention programs such as education sponsorship at the secondary and tertiary levels would be particularly beneficial;
3. These entities should adopt a REDD regime at the international level based on ILO 169 and the UNDRIP in order to guard against the risk of States taking away land from indigenous peoples to capture the REDD revenue. REDD countries would then have to align their REDD strategies with these instruments.

Endnotes

[1] Tebtebba is an indigenous peoples' organization and a research, education, policy advocacy and resource center working with indigenous peoples at all levels and arenas, based in the Philippines.

[2] For purpose of consistency in the discussion, the use of the acronym "REDD" as opposed to "REDD+" or both is adopted.

[3] Report of The Informal Working Group On Interim Finance For REDD October 27, 2009 Discussion Document.

[4] Sessional Paper no. 3 2009 on National Land Policy.

[5] Sessional Paper no. 3 2009 on National Land Policy.

[6] Policy, Legal and Institutional Framework Information Sheet, Ndiritu D. G. 2009 (KFS).

[7] Charcoal production in selected districts/section of the country.

[8] Anonymized.

[9] Kwale is more than 300 km away from the interview site.

[10] Top right, is a photo showing one of ceremonial Villages (Emanyatta) with Loita forest on the Background in Loita. Photo by James Twala (2009); on the right section of the Naimina Enkiyio Forest (Loita), Kenya (East Africa) Photo by: Rhett A. Butler http://travel.mongabay.com/kenya/images/kenya_3988.html.

[11] Upon independence, all land that was not in private or government ownership became Trust Land, under the control of County Councils to be used for the benefit of the residents of the area (MENR,

1994a). Currently; approximately 78.5 per cent of the total land area in Kenya is Trust Land.

[12] This Bill, that was published on May 21, 1999, has as its main object to amend the Land Adjudication Act in order to cancel certain title deeds to land which were irregularly registered in the Mosiro and Iloodoariak Land Adjudication Sections in Kajiado Districts.

[13] An overview of Readiness for REDD: A compilation of readiness activities prepared on behalf of the Forum on Readiness for REDD edited by Tracy Johns Evan Johnson.

[14] *Kenya to benefit from WB's Forest Carbon Partnership Facility* available from http://english.peopledaily.com.cn/90001/90777/90855/6455380.html. Accessed on September 8, 2009.

[15] These activities include: a) development of a national REDD strategy specifying the activities to reduce deforestation and degradation; b) establishment of a reference scenario of emissions from deforestation and forest degradation; c) establishment of a monitoring, verification and reporting system for the country's forest cover and forest cover change; d) design of an implementation framework for REDD; e) establishment of a consultation and participation mechanism for the national REDD process.

[16] REL provides the reference against which Kenya's performance on REDD+ will be measured.

[17] It is the only indigenous peoples' organization which was given an award on human rights advocacy by the National Human Rights Commission of Kenya. MPIDO organized the Africa Regional Summit on Climate Change and Indigenous Peoples in March 2009, which brought together indigenous peoples from 43 countries in Africa. This Summit came up with the Nakuru Declaration which it brought before the Global Indigenous Peoples' Summit on Climate Change held in Anchorage, Alaska in April 2009.

[18] For institutions holding data related to REDD see Annex 9.

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strating activities that reduce emissions from deforestation and forest degradation. www.forestcarbinpartnerhsip.org.

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ANNEXES

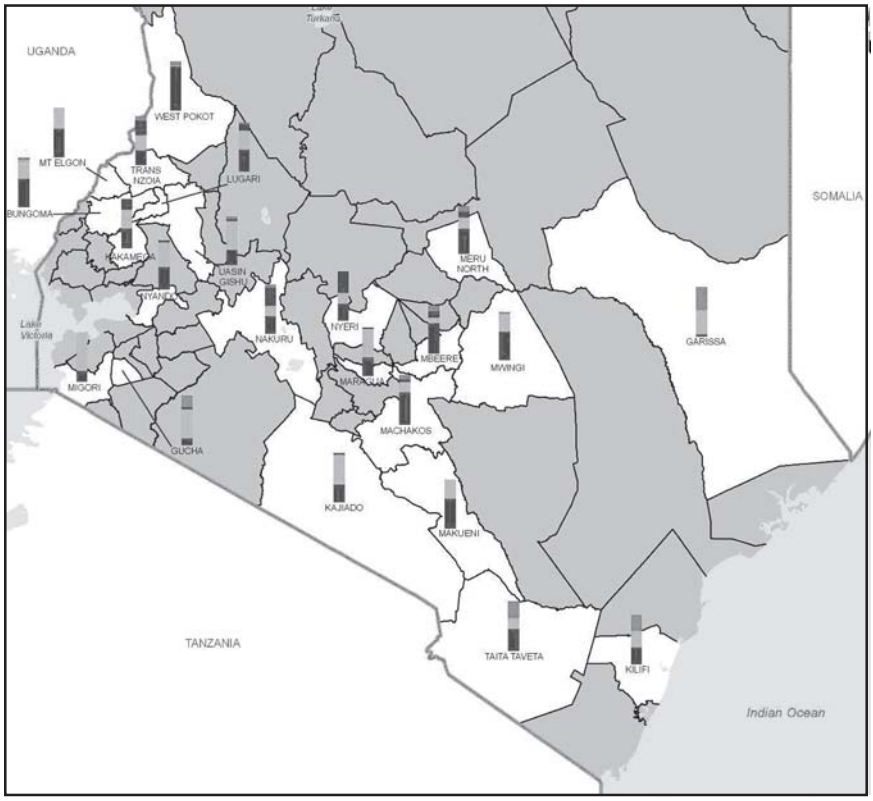
Annex 1. List of Kenya's Ratification of International Human Rights Treaties

TREATY/PROTOCOL	ACCESSION/RATIFICATION STATUS
Admission to UN	16.12.1963
United Nations Charter	
Universal Declaration of Human Rights (UDHR)	
International Covenant on Civil and Political Rights (ICCPR)	Accession 23.03.1976.
International Covenant on Economic, Social and Cultural Rights (ICESCR).	Accession 01.05.1972
Convention on Discrimination Against women (CEDAW)	Accession 09.03.1984
African Charter on Peoples and Human Rights (ACPHR).	
International Convention on the Elimination of All Forms of Racial Discrimination	
Convention of the Rights of the Child (CRC)	Ratification 30.07.1990
Optional Protocol on the Involvement of Children in Armed Conflict	Ratification 28.01.2002
Optional Protocol to CRC on Prostitution and Pornography	Signature 08.09.2000
Hague Convention African Charter on the Rights and Welfare of the Child	Ratification 25.07.2000
Hague Convention African Charter on the Rights and Welfare of the Child	Ratification 25.07.2000
African Charter	Accession 25.07.2000
Protocol to the African Charter on Human and Peoples' Rights on the Establishment of an African Court on Human and Peoples' Rights	
ILO Convention 138 on Employment Age	Ratification 09.04.1979
ILO Convention No. 182 Concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labour	Ratification 07.05.2001

Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children (supplementing the United Nations Convention against Trans-national Organized Crime) Palermo Protocol	Accession 05.01.2005
Convention on the Status of Refugees (CSR)	Accession 16.05.1966
Optional Protocol to CSR on the Status of Refugees	Accession 13.11.1981
Convention on the Rights of Persons with Disabilities (ICRPD), 2006	Ratification 18.05.2008
Optional Protocol to CEDAW	No action
Convention on the Elimination of Racial discrimination (ICERD)	Accession 13.09.2001
Convention against Torture	Accession 21.02.1997
Covenant on Economic, Social and Cultural rights	
Covenant on Civil and Political rights	Accession 01.05.1972
Rome Statute of the International Criminal Court.	Ratification 05.03.2005
The International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families,	July 2003
African Charter on Human and Peoples' Rights on the Rights of Women in Africa July 11, 2003	Signed by Kenya on December 12, 2003

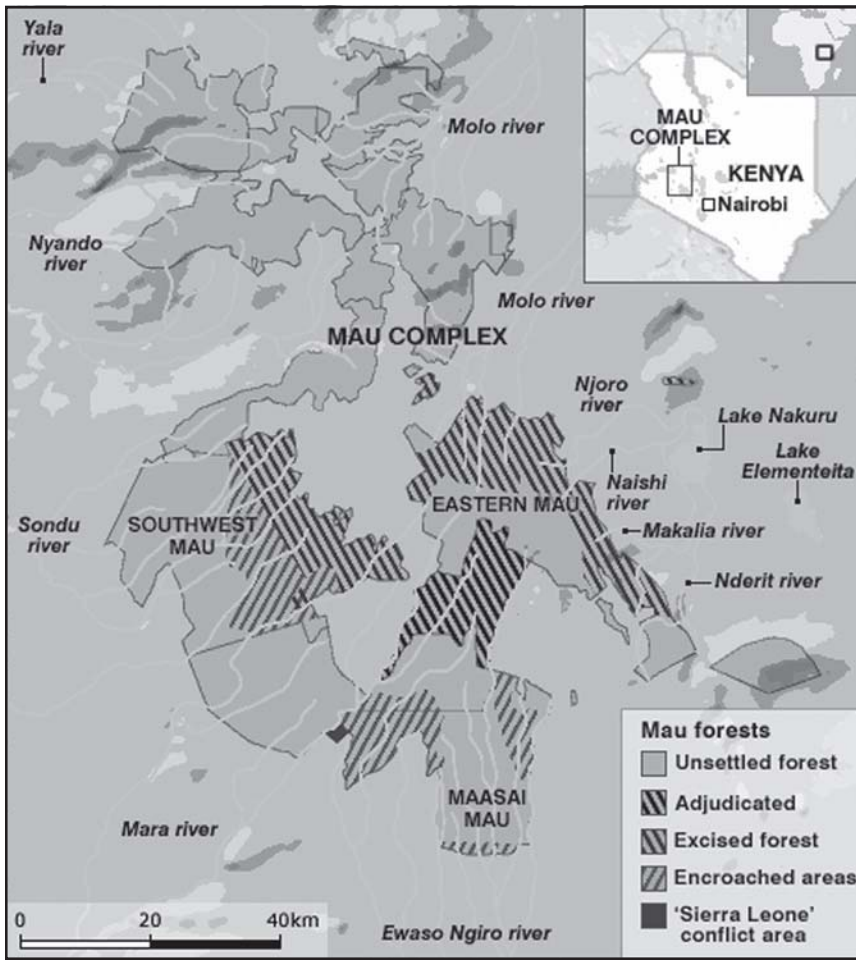
Source: http://lib.ohchr.org/HRBodies/UPR/Documents/Session8/KE/KSC_UPR_KEN_S08_2010_KenyaStakeholdersCoalitionforUPR_Annex3.pdf.

Annex 2. Sources of Wood for Charcoal in selected Districts, 2004



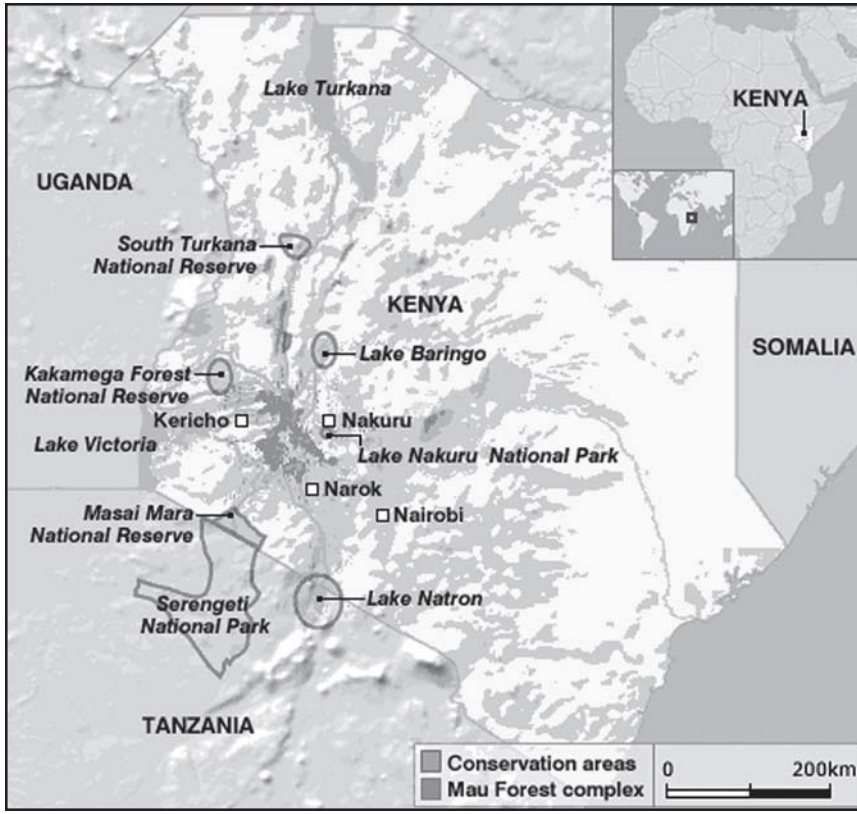
Sources: Administrative boundaries (CBS 2003), water bodies (FAO 2000), and sources of wood for charcoal (ESDA 2005a).

Annex 3. Kenya's Mau forest complex.



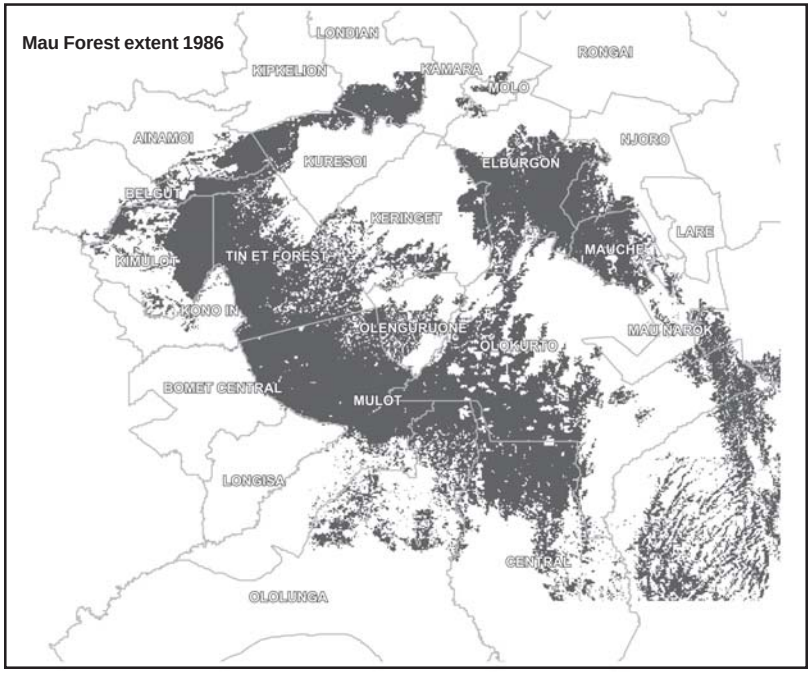
Source: BBC report: Kenya's heart stops pumping http://www.optimumpopulation.org/blog/?p=1221.

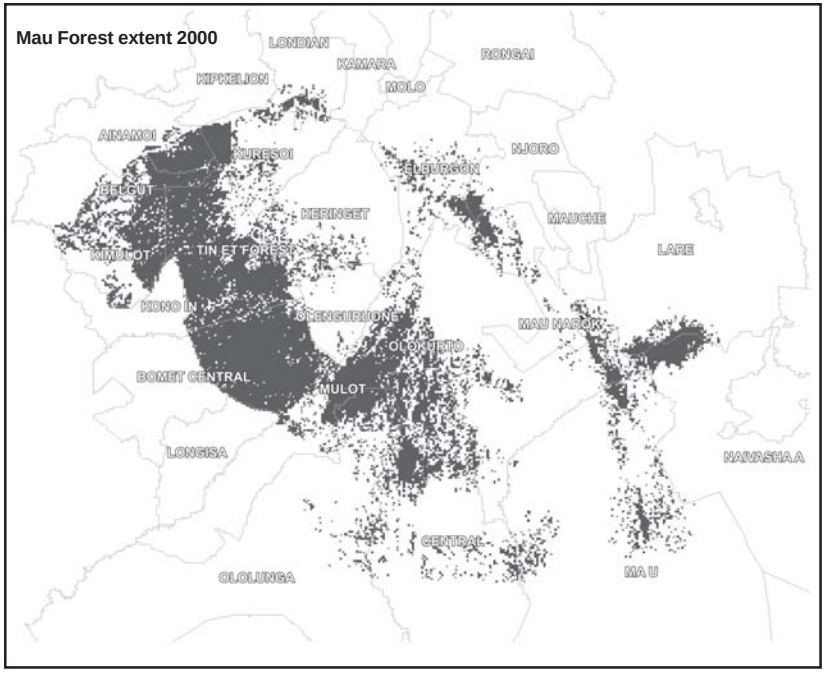
Annex 4. Conservation Areas Supported by the Mau Complex



Source: BBC report: Kenya's heart stops pumping http://www.optimumpopulation.org/blog/?p=1221.

Annex 5. Extent of Mau Complex Deforestation (1986 - 2000)





Annex 6. TOR and Composition of the REDD Technical Working Group

Terms of Reference for the Working Group

- Developing the organization, structure for preparation of REDD Readiness activities
- Implementation of interventions
- Development of the REDD Readiness- Plan Proposal
- Preparation and reporting of progress of Work plans and budgets (Capacity building activities)
- Entrenching stakeholder participation/ consultations
- Develop REDD Strategy
- Communication, information sharing and awareness
- Ensure participation of indigenous/forest adjacent communities in the process.

Composition of the National Working Group

A) Government Ministries and Agencies

- Ministry of Forestry and Wildlife
- Ministry of Environment and Mineral Resources
- Ministry of Energy
- Ministry of Regional Authorities
- Ministry of Northern Kenya and ASALS
- Ministry of Agriculture
- Ministry of Local Government
- Kenya Forest Service
- Department of Resource Surveys and Remote sensing
- Kenya Wildlife Service
- Kenya Agricultural Research Institute
- Director, Kenya Forestry Research Institute
- Director, Kenya Forest Service
- Director General, NEMA

B) National NGOs

- NGOS- WWF , KFWG, FAN, Nature Kenya, Green Belt Movement, IUCN
- Representative of forest adjacent communities
- Indigenous groups representative

C) Private sector

- KTDA, KAM, Rai Ply, Kakuzi, Charcoal Producers, KPLC, BAT
- Universities-Kenyatta, Moi, Nairobi

D) International Multi-lateral Institutions

- UNDP, UNEP, FAO, World Bank
- Donor coordination group

Annex 7. Indicative List of Actors in REDD strategy options

- Ministry of Forestry and Wildlife
- Ministry of Agriculture
- Ministry of Livestock Development
- Kenya National Bureau of Statistics (Ministry of Planning)
- Ministry of Lands
- Ministry of Water and Irrigation
- Ministry of Environment and Mineral Resources
- Ministry of Finance
- Ministry of Agriculture
- Ministry of Energy and ERC
- NGOs / CSOs – Kenya Land Alliance, etc.
- DRSRS
- Ministry of Planning, National Development and Vision 2030
- Kenya Forest Service
- Research institutes (KARI, KEFRI, Universities)
- Ministry of Local Government

Annex 8. Participants in Workshop and Working Group discussions for REDD Readiness Preparation Proposal (R-PP), 16th-17th November 2009, KFS HQ

	NAME	ORGANIZA-TION	NAME	ORGANIZATION
1	Robert Buzzard	USAID/Kenya	Inganji Yakhama	KFS-NRM
2	David Githaiga	UNDP	Gabrielle Giannini	FAO
3	Ngari Alex	Nature Kenya	Joshua Laichena	Ministry of Dev. of Northern Kenya & other Arid Lands
4	David Maingi	WWF	Praxedes Tororey	KFS-Legal; Services
5	Kai Windhorst	GBM-Unique Forestry	Julius Muchemi	ERMIS Africa
6	Haddy Jatoy Sey	World Bank USA	Sang K. Joepe	ERMIS Africa
7	*Kanyinke Sena	IPACC	Kefa M. Wamichwe	KFS
8	Niklas Hagelberg	UNEP	Patrick M. Kariuki	KFS
9	Makhanu Rudolf	KFWG	Leakey Sonkoyo	KFS
10	Kamau Julius	Embassy Of Finland	Michael Gachanja	KFWG
11	Jackson Kimani	Clinton Foundation	Alfred N. Gichu	KFS
12	Harta Honjane	IUCN	Benedict Omondi	KFS-Watershed Management

13	B.S. Wasike	KFS	John K. Maina	MOA
14	Zipporah Toroitich	KFS	Esau Omollo	KFS-Deputy Director
15	Enock W. Kanyanya	USAID/ABEO	David Mutuya	MEMR
16	Charles Situma	DRSRS	Christian Peter	World Bank
17	Freddrick Njau	GBM	Neeta Hooda	World Bank
18	Ochino Anthony	FAN	Erick F.N. Akotsi	Ministry of Energy
19	Daniel Plas	EC-Delegation	Ngari Alex	Nature Kenya
20	Joseph Mathuva	EC-Delegation	Diji Chandrasekharan Behr	World Bank
21	Harri Seppanen	MMMB		

Annex 9. National Institutions with Forest Data (there may be others. Not exhaustive list)

- KFS: Management data
- DRSRS: Land use Land Cover
- NMK: Biodiversity
- KWS: Biodiversity
- NEMA: EIA/ EA, Env. Hot spots
- Min of Water: Watersheds
- KEFRI
- Universities: National Universities, Londiani College
- Kenya National Spatial Data Infrastructure
- KFS and Clinton Foundation. Note from them will provide basis for this work and will be used to map the institutions and partners and their activities in the context of Reference Scenario and MRV development
- KIFCON project, none of the data is available to KFS



8

BUILDING ON INDIGENOUS PEOPLES' ROLE IN REDD+ IMPLEMENTATION IN CAMEROON

By
Lelewal*

***Authors:** Ibrahim Ndjobdi & Hamadou Amadou

INTRODUCTION

Cameroon is found in the Gulf Guinea and is located between longitudes 8° and 16° east of Greenwich and between latitudes 2° and 13° north of the Equator. The country covers a surface area of 475,650 sq km and has a population of over 19,000,000 as of 2010. Biophysically, Cameroon is known mostly by the variability of its climate, its ecosystems or its biodiversity (Tekeu 2004). Cameroon is made up of old African basement, with recent sedimentary components common in the Chadian Basin in the northern part of the country. Similar sedimentary deposits are found in the costal basin in the southwestern part.

The hydrology is characterized by several rivers that make up several drainage basins. Among these basins are the Atlantic, Niger, Congo and the Lake Chad Drainage Basins. The Atlantic Basin is in the south and its main rivers are the Sanaga, the Nyong, the Ntem and the Cross River. The Niger Basin that extends to Nigeria is drained by the Benue River and its tributaries in the section of Cameroon. The Congo Basin found in the southeast is drained by the Kadeï and the Ngoko Rivers. The Lake Chad Basin in the north has the Logone and the Chari as its main rivers.

The country has a variety of climatic domains that can be grouped as follows: the humid equatorial domain in the south that extends to latitude 6° north with two sub varieties. Next is the Humid Tropical Sudanese type that prevails between latitude 7° and 10° N. The last of these main climatic types is the Sudano-Sahelian type in the north, specifically around the Mandara Mountains and the Plains of Mayo-Danay and Diamaré (Tekeu 2004). Rainfall reduces as one move from the coastal region to the interior of the country. On the contrary, from the south to the north of Cameroon, temperatures increase considerably whereas the thermal amplitude increases from the north

to the south of the country. Temperature variations are very low in the south and high in the north. The northern part of Cameroon is close to the Sahara Desert and its climatic conditions are under the high influence of this desert.

The National Plan for Environmental Management (PNGE) has identified 10 distinct ecological areas that can be grouped into five ecological zones (See Annex 1). These zones include the degraded forest area of the Center and Littoral Regions that extends to parts of the coastal areas of the country. The next ecological zone is the dense forest that covers a surface area of 181,681 sq km in parts of the Southwest and East Regions. The third ecological zone is the coastal area that forms part of the Gulf of Guinea. It covers a surface area of approximately 4, 671 sq km. The savanna zone constitutes the fourth ecological zone of the country and it spreads over a surface area of 165,474 sq km covering the high savanna areas of the Adamawa Plateau, the low savannas of the Center and the East Regions, the Tikar Plains and the entire Western Highlands of the West and Northwest Regions. The fifth ecological zone is made up of the Sudano-Sahelian areas in the northern part of Cameroon. It has a surface area of approximately 10,268 sq km and it extends to the Mandara Mountains, the low lying plains of the Far North Region and the Benue Valley.

Over 16,164,000 inhabitants[1] live in these natural ecological zones of Cameroon with some of them being indigenous. These indigenous peoples are many and varied. The most distinct are the Mbororo (Fulanis) who are nomadic cattle herders and the Pygmies. The Mbororo live in the Adamawa and the Western Highlands while the Cameroonian Pygmies live essentially in the South and East Regions of the country. The Mbororo are about 1.85 million in number while the Pygmies are about 400,000.[2]

Historically, the Pygmies are presented as the first settlers of the Congo Basin and it has been observed that through their horizontal expansion, they currently live in parts of the East, Center, and South Regions of Cameroon. They are indigenous peoples made up of mainly the Bakas, Bakolas, Bagyélis and the Bedzangs. Although no exact data are available, the total indigenous population of the Pygmies in Cameroon is about 0.4 per cent half of which has been estimated to be the Bakas (Tchoumba

2005). The Bakas live essentially in the East and South Regions of Cameroon. The Bakolas and the Bagyélis are spread over a surface area of about 12,000 sq km in the South Region of Cameroon, specifically in Akom II Sub-division, Bipindi, Kribi and Lolodorf. Finally, the Bedzangs live in the Center Region, the northwest part of Mbam in Ngambè Tikar area (Nguiffo, Kenfack and Mballa 2009).

Despite the fact that indigenous peoples are widely recognized as the most marginalized groups of the population, they are legally not protected (Feiring 2008). Up to the present, their rights to own and use land are not given priority even though the Preamble of the Constitution of Cameroon makes provision for indigenous peoples to own and use land. They who have lived in harmony with nature from their very inception up until recently and have accumulated enormous indigenous knowledge that is useful in the management of biological resources are least favored by the existing natural resource management policies in the country. These policies neither incorporate their indigenous management systems nor consider their units of social life such as the semi-sedentary life-style of the Pygmies as being pertinent, and therefore, have rendered the issue of their ownership of forest and forest-based resources crucial. Within the domain of managing natural resources on which they wrest a living, there is no effective benefit sharing mechanism in the country that places these groups of people at the central position. Similarly, conservation organizations and government agents have used the issue of national parks and biosphere reserve in the East and Center Regions, respectively, to promote themselves and their agendas especially in terms of fund raising. The carving out of such large areas for conservation, the attribution of forest concessions to logging companies and the granting of safari hunting permits to aliens have accentuated the continuous dispossession of the Pygmies from land and other natural resources with severe consequences on the environment.

The data for this study were gathered from secondary and primary sources. The secondary data used were collected from the libraries of the Ministries of Forest and Wildlife, Environment and Nature Protection in Yaounde (Cameroon), the library of Cameroon Environmental Watch (NGO) and from the per-

sonal libraries of Professor John A. Mope Simo and Dr. Enchaw Gabriel Bachange. On the other hand, Tebtebba Project's funders provided a relevant online document entitled "Ensuring the effective participation of Indigenous Peoples in Global and National REDD processes" that guided us in our procedure.

The findings of this study have enabled us to understand those factors that contributed to the degradation and deforestation of the environment inhabited by the forest indigenous peoples of Cameroon, the issue of land and resource ownership rights of indigenous peoples, and the various international conventions ratified by Cameroon vis-à-vis conservation of natural resources and the rights of indigenous peoples. In order to carry out this study effectively, we used interviews, focus group discussions and field observation based on the maintenance guide of indigenous peoples. The data gathered using these research tools threw more light on the challenges of indigenous peoples on concerns of environmental degradation and deforestation, and the inadequate implementation of the international conventions on climate change and indigenous peoples.

Analysis of the secondary data revealed that the government of Cameroon is making insufficient effort to reconcile environmental protection and logging activities. It was also observed that the strategies used in the management of natural resources were suboptimal and never laid emphasis on the well being of the indigenous people and the smooth functioning of the REDD process. The common characteristic of indigenous peoples is their harmonious relationship with forests; they are opposed to any form of deforestation or degradation of forest-based resources.

The primary data collected through interviews, focus group discussions and field observation revealed that carving out of three National Parks in the East Region such as the Lobeke National Park was more eco-centered as the Bakas were forcefully evicted from their natural habitat. Field informants said that the Bakas lost access to their hunting and fishing sites and no alternative livelihood activities that are compatible with their units of social life were offered to them. Their eviction from the forest which served as their own territory has created conflicts over land with the Bantus. Similarly, the informants held that

their cultural and religious activities that used to take place in the forest were distorted. In another dimension, some of the Baka informants said that the categorization of animals into A, B and C classes by the government was unknown to them and would not help them in any way since their life revolves around hunting and gathering.

INDIGENOUS PEOPLES AND DEFORESTATION IN CAMEROON

Wanton deforestation in Cameroon has divested indigenous peoples of their life-sustaining resource base. In Cameroon, a wide range of drivers are responsible for such deforestation and forest degradation. This chapter presents the profile of indigenous peoples in Cameroon and their main features as well as the drivers of deforestation in the country.

Indigenous People's Lifestyle and Organization

In Cameroon today, indigenous peoples differ from the other people in the country in terms of their lifestyle. Though almost the entire landscape of Cameroon is dominated by a sedentary lifestyle, indigenous communities in the forest zone and the Mbororo in the savanna regions are still closely associated with a nomadic lifestyle.

Cultural specificities

The culture of indigenous communities in Cameroon is fundamentally different from that of their neighbors. While the sedentary life style of the populations in Cameroon revolves around crop cultivation, that of the forest indigenous peoples is characterized by hunting and gathering of natural forest products, and grazing of livestock for the Mbororo indigenous peoples. Although the Mbororos are not the only breeders in Cameroon, they have some specific characteristics that make them different from the other groups of breeders. For instance,

the Mbororo are the only breeders that go on long-distance transhumance on foot. They inhabit essentially hill tops or pasture lands which are relatively at a higher altitude. The Mbororo cherished living away from drinking points so that they could have enough time to discuss intimately with their wives when the children go to fetch water. Indigenous communities in the forest are unique in that polygamy is not an integral part of them and the disrespect of women is rife despite the central role played by women in their society. Conflicts among couples are solved as quickly as possible, following the man's initiative. In fact, the man must seek for his wife's blessing as she is the supplier of luck, before any hunting operation and collection. Given that these operations are daily, the man must be permanently available to ensure the kindliness of his wife.

Marginalization

Both the Pygmies and the Mbororo face a number of difficulties in integrating adequately into the national community. The working system of the State and the monetization of the economy have indeed been conceived for the sedentary people. They, therefore, have particular difficulties in getting basic social services.

Religion

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 those who have been initiated. These are those that constitute the regulatory society. This is the case with *Kose* that governs the divination dance of the Ngangas and Joboko. Then, another spirit presides over the *Yéli* ritual, and yet another performs a number of rituals before the hunting of elephants. 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, there are protected forest areas that host the spirits of their dead ances-

tors. Thus, there are types of trees that they should not cut because they are sacred.

Handicraft

Handicraft is the fifth most important social and economic activity practiced by Bakolas and Bagyélis of Lolodorf and Bipindi. It is considered as their third source of income. The results of a study carried out with the framework of the INDISCO Program in Cameroon revealed that the Pygmies also do basketwork, sculpture of mortars, pestles, boards used for crushing, drums and other materials used for traditional dances, braids of raffia plaited for the roofing of slots, the construction of huts, the texture of the lobster pots for fishing, the forging of (knives, spears, arrows, axes), 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 so this activity brings about a slow destruction of forest resources.

Traditional plaiting is a well-developed art in some Mbororo communities. Beauty shops, fashions parades, and designers would copy some Mbororo plaits without having to pay for a cent. Several Mbororo girls and women are used in this sector in Garoua and in other urban centers of Cameroon, but most of them complain of low wages despite long working hours and the intricacy of the plaits that they create.

Nomadic breeding (Mbororos)

During field work, it was gathered through interviews that cows do not only represent a source of wealth for the Mbororo, but also and especially a source of food and security. When the herd is large and in good health the Mbororos feel secure. Their lifestyle is dynamic and is adapted to the prevailing conditions of the environment. In the North West Region for example, the traditional nomadic practices of the Mbororos were replaced by transhumance in response to the demographic pressure in this region of the country that resulted in the restriction of the grazing areas. Agriculture is also becoming more and more important in the region as a source of income and as a means of achiev-

ing food self-sufficiency. The Mbororo are a force to reckon with when it comes to the domain of the livestock industry in Cameroon. The Mbororo alone hold more than 30 per cent of the estimated bovine livestock in Cameroon. This represents more than five million cows essentially found in the Regions of Adamawa, North and Far-North.

Main economic activities

The economic activities of indigenous peoples in the forest are different from those among the dominant social groups in Cameroon. Indeed, while the latter are active in crop production or subsistence agricultural activities, indigenous peoples in the forest are mainly hunters and gatherers. Their main sources of incomes are:

The sale of products generated from hunting

Indigenous peoples in the forests excel in the hunting practice. This activity is primarily meant for personal consumption, but somehow it has also become commercial. This activity is, in some camps, the main source of incomes of these communities. It was also observed in the field that the hunting techniques of the indigenous peoples are becoming more and more sophisticated with the introduction of hunting guns and slings, which are different from their traditional tools made up of spears and ropes. The products of the hunt, either fresh or dry, are generally sold very close to the roads. The trophies (tips of ivory, skins of panthers, bones and hands of gorillas, skulls of chimps, etc.) are at times sold directly by indigenous hunters. They are used for decoration or therapy in their traditional pharmacopeia.

The selling of gathered products

These products are: peels, roots, wild fruits and various tubers collected in the forest by members of the communities. These are sold either in the camps or through exhibition along the roads. These products are meant for consumption (as spices, medicines or food).

The selling of labor force

This is practiced more and more in regions that host indigenous communities. The labor force is sold to forestry compa-

nies (essentially as ski patrolmen), sport hunting guides, in development projects (generally as facilitators), and to individuals as agricultural workers or even as poachers. Based on observation, there is discriminatory treatment of the indigenous people vis-à-vis the natives. For the same piece of work done, the indigenous peoples are generally paid less than their Bantu counterparts. Similarly, there is a recurrent upsurge of agitations from the natives who are employed by forest exploitation companies. They claimed that their forest knowledge facilitates forest inventory and mineral and noble gases exploration. They held that the absence of higher qualifications such as degrees should not act as enough justification for the low remuneration that they receive. In fact, they want to receive a payment proportional to their output in the companies.

"Traditional pharmacopeia"

In Cameroon, the indigenous forest peoples (the Pygmies) are reputed for their invaluable knowledge of traditional medicine. They use forest products of all sorts to treat various ailments. Through their knowledge of traditional medicine, they are able to generate incomes. Their customers are mainly Bantu neighbors, but more patients from big urban centers come to seek for their prescriptions. The range of their treatment, at times, goes 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 for these natives of the forest.

Status of the forest

The size of the forest in Cameroon is about 23.8 million hectares and it decreases at a rate of one per cent per year. This natural vegetation is described as degraded forest and dense forest (181,681 km^2), coastal area or mangrove (46,671 sq km) and the savanna (165,474 km^2). In the year 2008, the issuing of logging permits largely respected the norms of the 1994 Forestry and Wildlife Law. It appears that in Cameroon, nearly 75 per cent of the forest production is locally transformed although

mainly at the level of individuals. Cameroonians are very active in the domain of wood transformation. There is an improvement in the quality of local transformation and the forest sector makes a significant contribution to the national economy. The main actors of this activity are the administrative authorities and managers of companies (sawmills). This activity is contributing to the improvement of residents' standard of living.

Community and communal logging

Community logging in Cameroon is done for the interest of local communities. The activity is carried out under control either in a part of the non-permanent forest that have been attributed to the communities for wood cutting through personal authorization to exploit wood or through permits issued to local communities in accordance with the provisions of a simple management plan approved by the administration in charge of forests. As for communal logging, it has a management plan approved by the administration in charge of forests.

According to the national plan for the attribution of land, the total surface area that has been carved out into Forest Management Units (UFA) is about six million hectares. Communities that live around forests areas generate a significant part of their income from forestry royalties allocated by the government or by using forest industries such as the exploitation of non-timber forest products. However, a substantial part of forest revenue goes to multinationals that are foreign investors. In the South Region, the village communities of Ekalis I, II, and III suffer severe effects of deforestation caused by logging companies. Their entire forest has been transformed and vast expanses of forests have become bushes with abundant lianas that give a new texture to the forest. Animals have become rare in these transformed forest and only birds and rats still find this degraded environment conducive.

Livelihood of the indigenous forest people

While the logging companies perceive the forest as an entirely economic domain, indigenous peoples associate a lot of symbolism to it. Indigenous peoples perceive it as a common

property of the community owned through history attachment and its members must benefit from it. To the indigenous peoples, ownership of forest is not associated with land titles. Field data showed that nobody among the people living in the camps has a land certificate. Taking into account the modern management strategies employed, it was noticed that the Baka people in the region of Mouloundou in the East Region are marginalized. They have been deprived of the forest that plays host to all their material and spiritual activities as mentioned earlier. The forest is used by the Bakas in various ways such as for agriculture, hunting and gathering. They also use it for their spiritual activities. For them, the forest is a direct link between the living and the dead. Similarly, the forest setting is at the center of funeral ceremonies; through it, they call on their ancestors to intercede on behalf of the living for protection during hunting expeditions or to fight evil spirits. They also depend on the forest for food which is made up of wild tubers and fruits. The carving out of the forest for conservation as national parks has deprived the Bakas of an essential source of food supply. This is for example the case with wild yams that have become very scarce. Baka women with whom the research team had a focus group discussion, pointed out that the destruction of many sites containing this source of food by logging companies has necessitated trekking over long distances for the women in order to find supplies.

The Bakas from Mbateka village told us that spiritual sites and trees having medical value are destroyed due to timber exploitation activities. It is necessary to mention that industrial cutting down of trees is not the only driver contributing to the divestment of the local population of their ownership rights. Forest conservation without alternatives is also a potential driver of divestment. For indigenous peoples, forest management, which generally does not consider forest as their environment is a driver of deforestation. An example of this is the wanton cutting of forest by the Bantu to establish farms and to build roads through dense forests. The consequences of deforestation in Cameroon such as agricultural land erosion, drying of water points during dry seasons, desertification and the disappearance of plant and animal species modify both local and regional environmental conditions significantly.

The Drivers of Deforestation

The main drivers of deforestation and forests' degradation in Cameroon are the following:

- *Agricultural activities:* The intensification of agriculture by big agro-industrial companies such as the Cameroon Development Corporation (CDC) in the South West Region that produces mainly rubber, banana and tea; Palm Oil Production Corporation (PAMOL) in Tiko and Lobe; the Cameroon Sugar Company (SOSUCAM) which has sugar cane plantations and others. On the other hand, the creation of access roads by logging companies provided an opportunity for the populations to move into the forest for the cultivation of other crops and to create farms in protected forest areas, thereby accentuating deforestation. The agro-industrial companies cover about 40 per cent of the forest surface area.
- *Charcoal processing:* Charcoal processing sites are found in Ntuisson village which is located at some 20 kilometers from Yaounde. In these sites, a huge quantity of trees is cut down to process charcoal. The activity is favored by the ever growing demand for charcoal from both rural and urban populations. Besides, an area of at least one hectare at the middle of the forest is needed for the burning of the cut down trees. A native medical doctor of the area recounted with a lot of indignation the disappearance of medicinal plants through this activity. "In places where charcoal is burned, nothing will be able to grow even after a long time because the land is completely impoverished." In Ntuisson, one sees on one side a dense forest and an entirely deforested area on the other. In this area, the activity of charcoal production is the main driver of deforestation as it contributes to the cutting down of trees and soils degradation. The charcoal that is produced is sold mainly in the capital city. Although this activity generates incomes to peasants, it also affects the forest and the environment significantly.

- *Industrial logging and economic activities:* The government of Cameroon carries out economic development through industrial logging, oil extraction, mining and the building of dams and plantations. In carrying out these activities, the rules and regulations governing environmental protection are not always taken into account. These investments, therefore, are among the drivers of deforestation and forest degradation. Despite the existence of both dissuasive and repressive legal provisions, there is still a lot of anarchy in the forest exploitation sector. Logging companies violate the number of trees to be felled within a given period, the sizes of trees to be harvested and the tonnage to be transported at a time with a lot of impunity although the NGO known as Greenpeace has raised awareness on the impact of illegal logging (Greenpeace 2005). This sector is characterized by a high level of corruption. A peasant in the Mbalmayo forest area said that foresters cut down trees and do not care about what happens. This peasant noted with a lot of indignation the "rampant corruption" in the logging sector of Cameroon. "For industrial forest operators, it is necessary to earn money by all means. Just take note of the way timber trucks parade our highways in the evening," the informant pointed out.

  Despite the dependence of millions of people, particularly, indigenous peoples on the forest for a survival, the forest of Cameroon is still threatened by companies involved in illegal and destructive logging (Greenpeace 2005). Logging, however, had been a very lucrative economic activity for a long time as Cameroon generates a lot of foreign earnings from it through the granting of forest concessions, issuing of forest exploitation permits and the collection of taxes from logging companies. These destructive activities are promoted by foreign partners. In 2004, France was the biggest wood and wood-related products importer in the European market. It imported over 817, 000 m3, and this volume was worth over 256 million Euros (Idem 2005).

According to that same report by Greenpeace, European companies such as Rougier and Patrice Bois are involved in illegal logging in Cameroon. Similarly, in the Ocean Division (Cameroon), "local communities have started experiencing the damaging effects caused by the new pipeline that crosses their land." The construction of the World Bank sponsored Chad-Cameroon pipeline that passes through the East, Center and South Regions of Cameroon has caused enormous loss of lands and forests at the detriment of several communities. The main victims who are the Bagyélis (Pygmies) that constitute indigenous communities lost a total surface area of 30 sq km of forest that was for hunting, collection, gathering and farming due to deforestation (Idem 2005). Thus, these indigenous peoples have lost their source of livelihood because of an activity that was supposed to bring them development. According to MINFOF, areas allocated as forest concessions summed up to 3,135,889 ha of forests in 2005 (MINFOF 2006). To this area, the extent of some protected areas such as community forests that cover over 1 219 554 ha can be added. These are the community forests whose management agreements have been approved.

Projects involved with the exploitation of natural resources tend to upset the lifestyles and culture of indigenous peoples. Industrial logging has some consequences on the environment and life of the pygmies. The opening up of roads and forest tracks, the construction of bridges, the setting up of logging infrastructure and the organization of cutting operations expose all the sites of the indigenous peoples to a wide range of stakeholders. Their units of social life such as hunting, gathering and fishing are affected with extended ill consequences on their food and nutritional balance.

- *Quest for the "well being" of natives and other people:* Indigenous peoples are adopting various survival strategies for their well being. In the absence of a viable energy policy, especially domestic energy, people opt for a policy of "self help" where everyone uses his/her own

means. The issue of firewood is still very marginal at the level of the ministry in charge of forest management. Although the cutting down of firewood is still not generalized, it increases with time following non-affordable prices of petroleum products especially gas and oil. This situation is affecting both urban and rural populations. It illustrates the continued deterioration of the standards of living of the poor "where the rich become richer and the poor become poorer." This situation leads to the systematic use of forests to solve the problem of energy for heating, cooking food and other uses. This energy related problem of deforestation is nothing compared to agricultural clearing which is one of the first drivers of deforestation. The exploitation of timber and commercial poaching are the first causes of forest degradation (O' Halloran and Shoe 1997). As far as mining activity in the forest is concerned, it is still rudimentary and expensive because of the rugged relief of the regions concerned.

- *Poverty and deforestation:* It is often said that poverty encourages deforestation as it promotes anarchical use of forest resources. Although poverty influences deforestation among the poor, wealthy households such as owners of ranches and plantations also contribute significantly to deforestation. This implies that high levels of income do not necessarily lead to low levels of deforestation. This is indicative of the fact that there are other parameters such as good governance, accountability, equity, transparency and the rule of the law that are more important than just income level. If these parameters are not adequately analyzed and addressed, these would engender corruption, clientelism and subsequently, deforestation.

  Studies modeling quantitative impacts of the increase of oil and mineral exports on deforestation have revealed significant variation from one country to the other. These variations are related to government structure, the trends in consumption expenditure, the situation of the job market and other factors. The huge revenue gener-

ated from oil in countries rich in subsoil resources can help reduce the pressure on forests and forest-based resources if a major shift is made from the forest and agricultural sectors to export activities or from the primary to the secondary sector of the economy. In Gabon, the oil boom led to an amelioration of the exchange rate and the growth of non-commercial sectors, but without resulting in an increase in deforestation. On the contrary, an oil boom in Ecuador did not check accelerated deforestation.[3] These circumstances indicate that the absence of good governance, accountability, equity, transparency and the rule of the law promotes corruption and clientelism (Karsnty 2007). Besides, the conception of rules governing the exploitation, use and management of natural resources do not often involve indigenous people who directly suffer the effects of externalities from deforestation. In the field, it was observed that conservation stakeholders used either assistencialism or absencialism (Enchaw 2009) to promote themselves and their agendas thereby paying little or no attention to the indigenous peoples. The State is preoccupied with the economic dimension than the ecological consequences that are suffered by the environment and indigenous peoples.

- *Manufacturing of cultural instruments:* In the South Region of Cameroon, deforestation is intensified by cultural practices. Field informants attested to the fact that the manufacturing of instruments for traditional dance and music (drums, rattles, flutes, and xylophones) and masks in the villages of Ovangoul and Médoumou requires felling of selected trees which are sometimes rare species. Even when the group needs just a small portion of wood for their instrument, the whole tree is felled. While moving to the field, the research team observed that the manufacture of these instruments has become semi-industrial as indicated by large quantities of products sold along the road. The commercialization of these traditional instruments has led to a massive cutting down of trees along the Yaounde-Mbalmayo High way. Al-

> though limited government data on this activity exists, field research revealed an estimate of two to three per cent rate of deforestation. Whatsoever the case, when the forest or environment is affected either due to political, economic or social factors, indigenous peoples such as the Pygmies are always those who suffer the effects most since they depend on the forest for subsistence.

It has been established that the prohibition of local populations from exploiting timber has not stopped the overexploitation of forest resources by alien European companies.[4] It is difficult for local populations to know the exact date when deforestation started, however, some of the people interviewed made allusion to the colonial period. In Cameroon, industrial exploitation of timber attained apogee in the 1980s. The activity skyrocketed with the use of unorthodox means due to the growing world demand for precious tropical wood. The high demand for timber led to increased rate of harvesting and wanton violation of forest exploitation norms. The damaging effects on the forest and indigenous populations became enormous. The increase in forest degradation has become an obstacle to the effective implementation of sustainable development policy because it jeopardizes the lives of future generations and particularly indigenous peoples who are forest dwellers.

From the findings presented so far, it can be concluded that logging activities, agriculture and the manufacturing of charcoals are the main drivers of the deforestation process in Cameroon. The main actors promoting the process are: industrial forest operators, farmers (industrial farming) and to a lesser extent manufacturers of handicrafts. A combination of these factors mentioned above leads to forest degradation. The forest is the primary source of food and livelihood for indigenous peoples. It is their source of health and medicine, leisure, cultural and spiritual life. This resource is a collective property based on the sharing of natural resources from the forest. Indigenous peoples consume forest products such as game, yams and wild fruits, honey, leaves and assorted peels. Deforestation renders these forest products scarce. If we can easily get leaves in the surrounding villages, this is not the case with animals, wild fruits,

honey and the peels that are less available. The forest that used to be dense and difficult to access has become more opened due to large roads that have been created by bulldozers for the transportation of timber by trucks. The bush is essentially made up of small trees and lianas that try to rebuild more or less the virginity of this area. Even with the advent of community-based forest management, indigenous peoples do not still benefit from the fallouts of REDD and the process of deforestation and forest degradation is in a steady increase.

Women

Women and children are the first victims of deforestation and forest degradation. Women have gradually become land stewards following their interaction with nature in search of domestic livelihood. They spend a lot of time gathering and moving in order to fend for their families. In this search of livelihood, men are also involved. Through hunting, family heads contribute to the livelihood of their families. Because of forest degradation, animals become very scarce. This obliged men to go over long distances to look for animals. Poachers hunting for commercial purposes destroy everything on their way making it difficult for indigenous peoples to get what they need from the forest. This has led to competition over game between indigenous peoples and some poachers who often come from the cities.

LAWS, POLICIES AND PROGRAMS ON FOREST, LAND TENURE, REDD & CLIMATE CHANGE

Laws, Policies and Program on Forest

Laws

The 1994 Forestry and Wildlife Law (law N° 94/01 of January 20, 1994) of Cameroon was promulgated in order to involve local communities in forest resources management and conservation. According to this law that laid down forests, fauna and fishing organization, the forest area is made up of permanent and non-permanent forests. The permanent forest domain is made up of areas that are under total protection such as national parks that play host to Class A fauna resources. The non-permanent forest domain is made up of State forests such as reserves and sanctuaries and communal forests. It is in the non-permanent forest that community forests and council forests can be carved out. It is also in this non-permanent forest that forest concessions are allocated to logging companies for forest exploitation. The 1994 law requires inventory and planning for the exploitation of forests in Cameroon's territory. Thus, any corporate body or natural person intending to practice a forestry activity must comply with the provisions stated by this decree.

The adoption of this law in 1994 was instigated by donors who needed a new law granting local communities the possibility of increasing their involvement and participation in the management of forest resources. But the practical application of this law is very challenging as the local communities seldom participate in the design and implementation of forest management norms. As Samuel E. Edge (2001) puts it "it is difficult to reconcile the supposed traditional hunting rights as stipulated by the 1994 Wildlife Law and the way fauna is exploited in the forest controlled by local authorities and communities." The interest of the local authorities and communities on issues of wildlife management and use at local level is not considered especially as synergetic hunting in forests under the *de facto* and *de jure* rights of local authorities and communities is associated with aliens. Similarly, the 1995 Decree on wildlife brings in some new

concepts that are related to the participative management of fauna, although this decree only aims at implementing the provisions of the 1994 law on wildlife.

Law n° 96/12 of August 5, 1996, which lays down the framework related to the management of environment, emphasizes on the sustainable management of forests for economic growth and for poverty alleviation. The law also calls for participative management and conservation of biodiversity through a national network of protected areas. The general trend in the forestry policy of Cameroon is to "perpetuate and enhance economic, ecological and social forest roles within the framework of an integrated management that ensures a sustained and sustainable conservation and use of forests and ecosystem resources" (MINFOF 2006).

During a sensitization day organized by the central and external services of MINFOF on January 22, 2009 on the issue of communal forests, the Ministry drew the attention of the staff on a new approach to forest management. The staff was enjoined to perceive communal forest as a tool for decentralization, good governance and the fight against poverty. The Ministry of Forestry and Wildlife (MINFOF), which is in charge of drafting and implementing forestry policy in Cameroon, is also the supervisory body. Through the directorate of forests, this ministry implements those forestry policies drawn up by the government. The government laws restrict access of indigenous peoples to forest resources through the creation of protected areas where all human activities are prohibited and monitored by local government agents. A young man in Yokadouma testified that through forest conservation, hunting by indigenous peoples is no longer allowed. He further noted that the law has prevented them from eating meat and they can no longer move freely in the forest. The informant wondered aloud whether we have moved forward or backward in the face of this new dispensation. It is difficult to give a satisfactory answer to the worries of this informant. These restrictive laws do not always take into account the socio-economic and cultural realities of the indigenous peoples. The indigenous peoples have very low levels of formal education and have not been sensitized adequately on their rights and responsibilities. Moreover, the procedure

for them to meet up with their responsibilities is so complex and foreign to them. They are poverty stricken and none of those interviewed in the field had an idea of a land title, a hunting permit and the classification of animals. Yet they are expected to respect the rules and regulations governing hunting. These populations suffer from these restrictions on their freedom.

In the socio-cultural domain, informants said that some men were already losing their grip as family heads since the restrictions made it difficult for them bring back home something to eat (game) as required by their custom. Women considered their inability to bring home game as a sign of weakness. Although laws striving for the mitigation of deforestation are for the general interest, those who have lived in these respective domains since time immemorial must be provided with copping alternatives that are commensurate with forgone opportunities.

In another dimension, those with *de jure* rights to exploit the resources on which indigenous peoples have depended from their very inception do not even respect the norms. This has complicated the reflection on who should exploit them and the rationale for aliens to be exploiting the resources. The map below shows how forests are used in the region inhabited by Pygmies in Cameroon (See Annex 2).

Indigenous peoples in Cameroon are treated differently when it comes to forest royalties although all of them face similar problems associated with loss of access to forests and forest-based resources and climate change. Those living in areas where concessions have been given to logging companies have been allocated yearly royalties while their counterparts in mountain forest areas that conserve their forest for good climate, constant water supply for the whole country and carbon sequestration have no royalties, no incentives and no alternatives to wrest a living out of their protected forests. On the contrary, they are under the heavy arm of the law when they protest due to loss of access to forest and forest-based resources and their shrines and sacred forests where they commune with their ancestors for intercession.

Climate Change and REDD

Climate change has become more of a human issue (as it embraces socio-cultural, economic, political and ecological dimensions of forest resources management) than a purely scientific and technical subject reserved for climatologists. Indigenous peoples inhabit many of the areas of highest biological diversity on the planet. These local populations and the biodiversity constitute what the Declaration of Belem adopted at the First International Congress of Ethnobiology in Belem, Brazil in 1988 calls "inextricable link" between biological and cultural diversity (Posey 1990). Consequently, any REDD scheme that does not guarantee the effective participation of indigenous peoples is bound to fail even before taking off. Attempts by the Catholic Church and the Government of Cameroon to forcefully resettle indigenous Pygmies along roadways turned out to be counterproductive. The dissociation of some of the Pygmies from their natural environment was exploited by some logging companies to deforest the initial sites of the Pygmies. The Mbororos are considered as aliens in all the localities in which they find themselves in Cameroon and their grazing activities are putting them into conflicts with their neighbors. In the savannah grasslands, transhumance calendars of the Mbororo cattle breeders have been altered from January to late October due to a shift in the start of the dry season. This early start of the dry season has increased the number of conflicts they have with their Semi-Bantu crop farmers as they go on transhumance when crops have not yet been harvested in the valleys (Enchaw 2009).

Impact of climate change on indigenous people

Indigenous people are affected by climate change in three ways:

1. The change in seasons (lengthy dry season and the coming of droughts) disturbs the agricultural calendar and the temperature of the surroundings;
2. Their life style is shaken; there is scarcity of forest products (fruits, tubers). Indigenous peoples are therefore compelled to look for other food substitutes;

3) Due to the change in the overall activities of the year, religious ceremonies of the year are not held at the proper time.

Actions and Responses to Climate Change

As far as community grouping is concerned, there are few community initiative groups (GICs) or associations that are put in place by indigenous people themselves. The rights of indigenous peoples, however, are protected by some local NGOs and associations. In Djoum, which is part of the study area in the South Region of Cameroon, women are organized in small groups (djangui) where they raise funds to carry out small scale commercial activities such as the selling of games, tomatoes, oil, maize and fruits. This enables them to satisfy some of their immediate needs. So far, there has been no community initiative group put in place by indigenous peoples, particularly by women, that fights against climate change and REDD. Actually, REDD initiative is still unknown in these communities even the pilot project of REDD that is run by the Cameroon Government.

Issues of tenure have complicated the challenges of climate change and the REDD processes vis-à-vis indigenous peoples in Cameroon. Forest reforms associated with modern land tenure system characterized by titling engendered loss of access to life-sustaining resources and destabilization of the social dimension which encompasses social policies, societal values and norms. All these resulted to cultural conflicts that influence biodiversity decimation even in protected areas under the aegis of governments. This embarrassing situation gave local communities the latitude to blame governments for applying top-down strategies that deplete their traditional forests. On the other hand, the governments blame local communities for much of the damage being done to the forest. These accusations and counter accusations are indicative of the recent unprecedented quest for the adoption of more adaptable conservation strategies.

Forest reforms in the country still give precedence to modern land tenure system with limited practical participation of indigenous peoples in forest managements. Forest reforms of the 21st century in Cameroon have been fostered in ways that

replicate the historical inadequacies of the 20th century. Until the 2nd half of the 20th century, local populations were considered as having nothing to offer in the domain of forest conservation. Effort to redress the situation in 1994 led to the introduction of community forestry as a means to increasing the participation of local peoples in forest management. That effort notwithstanding, the new Cameroon Forestry and Wildlife Law of 1994 accorded a problematic definition to a community with potentials to own a community forest. The establishment of community forests based on user groups did not coincide with the tenure arrangements of indigenous peoples. The subsequent transformation of some forests into community forests, with management entrusted to management officers (FMOs) and delegates of forest management institutions (DFMIs), was a state construct and it meant the transfer of tenure rights from traditional landlords to user groups. Duplication of posts (FMOs and DFMIs) at the head of forest management institutions (FMIs) paved the way for conflicts of authority (Enchaw 2009).

Indigenous peoples are among the poorest in the country and they depend on traditional methods of cropping and livestock rearing which are not adapted to increasing population and limited access to input and output markets. Their agricultural practices are very vulnerable to deforestation, forest degradation, climate change and rugged relief. Attempts to wrest a living and to cope with climate change (progressive increase in the length of the dry season, rising temperatures and inadequate and irregular rainfall) have rather metamorphosed to collective depletion of forests and forest-based resources through covert arrangements. Such clientelism is fanned by logging companies and ivory customers who are mainly from the developed world. REDD programs are riddled with top-down approaches that are cushioned by assistancialism. Forest governance is bogged down by poverty and the fact that sponsors of forest governance facility projects seldom include livelihood in their packages. Similarly, REDD processes have not included a capacity building component that considers the social status of indigenous peoples. The social status of the Pygmies and the Mbororos renders them vulnerable with limited chances of participating effectively in REDD initiatives.

Policies and programs on forest

The 1994 reform has three main objectives (Logo 2007): a political objective, a socio-economic objective and an ecological objective. Politically, it concerns with the implementation of principles that increase the involvement and accountability of villagers in the management of forest resources and the promotion of local democracy and governance in forest resource management. Economically and socially, the reform seeks to make the contribution of the forestry sector to local development and poverty alleviation possible. This could be achieved through the design and carrying out of economic and social projects such as water supply, electricity, construction and maintenance of roads, bridges, equipment and schools and health centers, etc. In the ecological domain, it aims at ensuring a sustainable management of the forest ecosystem.

But by granting the exclusive right to forest operators (70% of the area meant for exploitation), the 1994 law significantly restricts the user's rights of the residents (Lassagne 2005). For local forests that have been classified under permanent State domain, the classification act restricts the forest use rights of local populations. Thus, agro-forestry activities are strictly forbidden within the limits of local forest. In the field, it was noticed that the spreading of local forestry contributed tremendously in reducing arable land. This scarcity of arable land leads to conflicts among residents. In addition, increasing inequality and injustice in resource allocation and the absence of a viable benefit sharing mechanism has engendered conflicts among various stakeholders in the forestry sector (Logo and Dabire 2002). The lack of arable land led to a decrease in the incomes of the residents. Thus, the practice of agriculture, which is the main income generating activity, has become hypothetical. As a result, logging tends to impoverish the populations in spite of royalties generated by this sector.

Natural resource management in Cameroon is a strategy of the national forestry policy. This forestry policy is related to the National Environmental Management Program (NEMP) and is supported by ecosystem perspectives. The strategies, priorities and objectives of this forestry policy are tilted towards the conservation of biodiversity and the involvement of local popula-

tions in order to bring about economic development. In the development of this new policy, the government took into account the entire forest, which in this context, is considered as an ecosystem. The ECOFAC program that began in 1993 focused mainly on the Fauna Reserve of Dja created in 1950 with a surface area of 5260 sq km This was intended to combine improvement of people's standard of living and the development of a reserve.[5] The restrictive nature of this program that was focused only on the Dja Reserve has made its functioning difficult. The unstable nature of the reserve personnel disrupts its functioning. On August 2, 2001, several decrees appointing the personnel came up and disrupted the activities of the program and the conservation service. Among these decrees were those appointing a new national director in the Ministry, a new conservator and the representatives of the administration within the program established by ECOFAC. These appointments have created some uncertainties both within the staff and the population (Idem 2001). Difficulties encountered riddled the coordination and the management of the reserves because abusive and anarchical exploitation of the forest reserves in the country set in. Since these programs are considered as a means to enriching those manning them instead of effective conservation, uncertain periods of mandate has given room for clientelism and covert arrangements that are detrimental to the environment and the social fabric of the resident population.

A field informant during a focus group discussion said that leaders of this program are replaced on a daily basis, and this complicates the running of the program with the local population suffering the effects. When the post of the conservator is vacant, operators in the forestry sector take advantage to illegally exploit timber within the reserve with the complicity of the reserve guards.

The problems caused by logging accentuate land disputes. Land policy in Cameroon is based on land and estate tenure even though the Cameroonian land tenure is based on legal pluralism. Tenure in the country is based on tradition or customary law and modernity tenure.[6] The unrecognized cohabitation of these two tenure systems eschews complementarity and has instead resulted in recurrent conflicts with the State arrogating the monopoly of tenure.

The genesis of such land policies dates back to the colonial period. The colonial land policy that existed since 1901 became generalized following the 1932 decrees in Western and French Equatorial Africa. The policy is based on associating the public and the private and excluding the common. Customary land ownership has led to conflicts between the State and local communities. Customary tenure approach of collective ownership does not coincide with land titling approach of the State. The State uses economic and social development as a pretext to marginalize local collectivities. It is also the case with indigenous peoples whose land rights are violated. The marginalization of indigenous peoples has jeopardized their sustainable development. State land policy lays emphasis on the relationship between land ownership and sustainable development, thus it is a driver of the environmental protection policy. Unfortunately, these environmental protection policies are seldom implemented adequately. It has been difficult to reconcile land ownership, control and the distribution of non-registered lands. Besides, local populations know little or nothing on land registration policy. Ignorance is the root cause of many land disputes noticed throughout the national territory. Amougou Onana (2010), a field informant, related that he inherited his plantations from his parents and those in his community were aware of that. He said he did not see any reason to produce documents. According to him, the land title policy was something that was brought from somewhere. Land disputes are associated with deforestation and forest degradation.

REDD, Indigenous Peoples and their Rights

The involvement of developing countries in world efforts to mitigate climate change within the context of a new climate deal after 2012, led to the establishment of a project on "Reducing Emission from Deforestation and forest Degradation" (REDD) in the forest of the Congo Basin. Cameroon is concerned with REDD due to its 19.6 million hectares of forest potential. This is equivalent to 41.3 per cent of the national surface area. It is observed that 11 per cent of this forest is found in the Congo

Basin.[7] Thus, the country has been chosen to host that project. The adoption of REDD by Cameroon is aimed at providing the necessary tools that will prepare the country in particular and the sub-region in general to start operating within the framework of the mechanism to reduce greenhouse gases effects (GES) during the post period of the Kyoto Protocol. Cameroon became involved in the REDD process from the beginning of the negotiations in the Copenhagen meetings. In this context, support for launching a REDD pilot project in Cameroon in 2007 came from the State and COMIFAC. This initiative is carried out under the supervision of the Ministry of Environment and Nature Protection (MINEP) which is the national focal point of REDD. The implementation of this tentative phase is done through experiences of GAF-AG group—a German structure that specializes in remote sensing. The pilot project is funded by German Cooperation Agency (KFW). Other development agencies and research centers have initiated projects on REDD in Cameroon. This is the case with REDD-Alert Project initiated by ASB Partnership. "Making REDD Work in the Congo Basin" is supported by World Resource Institute (WRI). The most advanced of these projects is that of the government. The State's project is intended to develop new methodological approaches for the formulation of REDD's policies while making valid scientific projections for the potential credit/flow of carbon resulting from deforestation and forest degradation at the national level. The project combines the application of earth's observation technologies through development policies. This approach will lead to the establishment of a basis for the projection of emissions from deforestation, which, in turn, will be associated with regional projections on degradation. The project promotes a south-south cooperation while applying experiences acquired from Bolivia on the calculation of carbon stocks from deforestation in the Congo Basin. The setting up of the pilot phase of the REDD project in Cameroon focused on five main activities which include the analysis of stakeholders, the assessment of deforestation and forest degradation, calculation of emissions and the analysis of political situations and local capacity building. With this pilot project, it will be easier to establish the relationship existing between the system of REDD and the drivers of deforestation. In this perspective, a major question arises. Is it by

increasing forest value or by offering funds to the "owners" that deforestation can be stopped? It is difficult to give a unanimous response to the question.

Tackling the causes of deforestation may seem a suboptimal approach. This approach may contribute to the slowing down, but not to the termination of the ills or externalities of deforestation. As Myers (2007) cited, "the previous projects in the forest sector showed that if one invests in projects of conservation without having identified the reasons associated with deforestation before hand, then, he risks wasting resources without modifying to the least the rate of deforestation." Another scholar was of the view that it is important "to analyze the indirect causes and not only the immediate causes of forest disappearance. In this case, it will become easier to fight them directly by getting and allocating the necessary funding to the appropriate tasks" (Rawles 2008, 24). Similarly, a member of a civil society group said that:

> *It will be difficult to stop the hemorrhage of deforestation, for you to understand, you need to spend the evening at the central post office toward midnight, hundreds of trucks transporting timber are parading and that no one can tell you the exact number. Because of this, one cannot talk of the control of deforestation. In order to reduce deforestation, it is indeed necessary to look for indirect causes; you should not focus only on industrial logging. That would be a very easy solution.*[8]

This field informant referred to the central post in Yaounde. From the views of this informant, it can be noticed that it is not easy to provide an answer to the impact of REDD project and especially on how to achieve the goals set by that initiative. One wonders if REDD has not been buried before its birth. With such pessimistic views, the strategies mapped out for the fight against climate change may become complicated. The Central Africa Sub-Regional Committee has been involved in international negotiations for the recognition of the role played by tropical forests in the fight against climate change and carbon sequestration since 2006. All member countries of the Central African Forest Commission became signatories to the Convention on the fight against Desertification (CCD). This spurred them to adopt national action plans on the CCC and to step up the fight

against soil degradation and deforestation.[9] It is within this scope that Cameroon revamped its reforestation program throughout the national territory in 2007. Similarly, at the regional level, the sub-region came up with a plan for the fight against soil degradation and deforestation which included some activities such as water resources management and cross-border transhumance that were expected to be carried out at the sub-regional level through concerted effort (COMFAC 2008).

The January 1996 constitution of Cameroon alluded to minority and indigenous peoples in its Preamble. The meaning attached to the two notions by the constitution seems to be different from that adopted by the United Nations. According to the World Bank Operational Guidelines 4.20,[10] there are, however, two groups of peoples recognized as indigenous in Cameroon and they include the Mbororos and the Pygmies. The Pygmies still live in harmony with the forest ecosystem that forms their environment and serves as a source of livelihood (where they get raw materials, food products, and arable land for agricultural expansion) (Lescuyer et al. 2008). Forest indigenous peoples or the Pygmies are good in hunting and this traditional activity, at times, is in variance with some provisions of the law governing fauna conservation. For instance, the species preferred for hunting by the indigenous peoples such as elephants, gorillas and other large mammals are generally protected by law.[11] Whereas the natives are restricted from hunting these species, aliens from Europe and America obtain hunting permits from the Government of Cameroon to carry out sport hunting of these protected species in the forest that serves as a source of livelihood to the indigenous peoples. Hunting regulations in Cameroon do not take indigenous peoples into consideration although they live on hunting. They are always in conflict with forest guards as indigenous peoples refuse to respect the various hunting guidelines which they believe do not safeguard their interest. For indigenous people, eating this wildlife is a fundamental human right just as hunting is to synergetic alien hunters and any restriction is a violation of their basic rights. Prohibiting indigenous peoples from eating these animals is a violation of the provision of the African Charter that clearly states that peoples have free ownership of their surrounding wealth and natural resources, and that everybody has the right

to exist.[12] This shows some of the shortcomings in the policies regulating the management of forest products.

In principle, the Pygmies are Cameroonian citizens, subjected to the same rights and obligations as the other people. The daily realities, however, are completely different as a majority of these Cameroonians neither have birth certificates, marriage certificates, death certificates nor the Cameroon National Identity Card.[13] Their lack of identity prevents them from taking part in social or political activities according to the law.

Effort is, however, being made towards their socio-economic integration. The 1997 report sent by the Government of Cameroon to the Committee for the Elimination of Racial Discrimination (CERD) reassured the International Community that projects are being implemented for effective socio-economic integration of the Pygmies in the East and South Regions of Cameroon. It also mentioned the relocation and resettlement of the Baka Pygmies in camps along major road axis in these two regions and the improvement of their intrapersonal and interpersonal relationships with the native Bantu communities. They have been initiated into agriculture, hygiene and sanitation practices and provided with health and educational establishments in order to ascertain their sedentary life style. Some of their children also benefit from special school assistance.

Indigenous peoples are bound by law to forgo some of their customary rights and social practices. A family head of age about 30 observed in Yokadouma that what they are doing in the forest does not only serve their interest because people from the cities come to them for traditional medicines which abound in the forest. The informant acknowledged the fact that other stakeholders want them to have a lot of good things, which unfortunately do not coincide with their units of social life since they are different from the Bantu and aliens. In a bid to protect and to promote the rights of the minorities and indigenous peoples, however, CERD advised Cameroon to take adequate measures with respect to deforestation that could impact positively on these populations.[14] The fact that the interest of indigenous peoples is not safeguarded is a hindrance to them (Nguiffo and Mballa 2008). The absence of good forest governance, justice and equity, as mentioned earlier, is detrimental to indigenous

peoples as it becomes impossible to implement laws.[15] This is prone to jeopardizing effort made in the protection and sustainable management of forest. In order to curb deforestation, it is necessary to implement good governance as stipulated by the UN Forum on Good Governance and to step up the fight against corruption (Brack 2007). Indigenous communities that have been settled along the roads should be given tenure rights over their estates so that the Bantus who have customary land rights should tolerate the presence of the Baka Pygmies. At the core of the forest where their ancestral lands are found, protected areas have been created with many restrictions. They have lost both *de jure* and *de facto* rights to basic resources in these protected areas of their forest.

The perception of land ownership by indigenous peoples does not coincide with that of their Bantus neighbors and the State. The Pygmies and Mbororos believe that land is a collective property that should be used by all without exception. These indigenous peoples, particularly the Pygmies, are aware of the existence of their ancestral lands although there is no clear-cut limit between their lands and that of their neighboring Bantu communities.

The Cameroon Government and the United Nations Development Program (UNDP) jointly drew up a National Environmental Management Plan (PNGE) that was expected to be binding to the local populations although they did not participate in its drawing up and did not include the aspirations of the indigenous peoples who are generally the first victims of the decisions taken. Thus, the program is far from meeting the needs of local peoples that live either in the forest or Sudano-Sahelian areas. In the same manner, the National Forestry Action Plan was drawn up without the participation of indigenous peoples, even though they are bound to respect the regulations of the action plan. Laws that aim at protecting the environment and the fight against deforestation do not safeguard the interest of indigenous peoples.

Areas covered by REDD projects form part of those inhabited by indigenous forest peoples. In the Congo Basin, for instance, REDD covers countries such as Cameroon, Central Afri-

can Republic, Gabon, Congo and the Democratic Republic of Congo that play host to the Pygmies.

In Cameroon, the pilot project of REDD concerns only the technical aspect whereby the stock of carbon and the volume of biomass are estimated from historical satellite data. It is mostly about technical aspects based on the measuring of carbon stock in the forest. Thus, the project excludes socio-anthropologic and economic components that could allow for a better understanding of its impacts and effects on people. Integrating the socio-anthropological dimension would enhance an understanding of the expectations and responses of the people in the forest, especially the indigenous peoples. Knowing that the REDD is a process that will generate income, it is necessary to establish an equitable benefit sharing mechanism both at the national and local levels. Through this approach, REDD will become a veritable development process as many people perceive and believe. For the countries in the Congo Basin, REDD mechanism is considered crucial in the planning of their national development strategies. This indicates that the implementation of REDD doesn't only limit itself to the conservation of forest.

ISSUES AND CHALLENGES OF REDD

Among the issues and challenges inherent in REDD is stakeholders. The stakeholders in REDD are mainly ministerial officials, representatives of development agencies, research institutes and NGOs. The ministerial officials are, at the same time, members of the management committee of the REDD pilot project set up through a ministerial decision N°00009/MINEP of January 15, 2009. No indigenous peoples are included and by implication, therefore, the REDD project is currently the business of just a handful of people. A major question that could be asked is what REDD will do with local populations when it will come to the state of implementation now that they are not part of the pilot phase. The pilot project is based mainly on MINEP-REDD focal point that takes care of the implementation, the follow-up of policies and the various programs of REDD. Field activities are organized by the implementation agency of the

GAF-AF pilot project, with the funding of KFW and a logistical support from the support program of the Central African Forest Commission.

There has also been a Readiness Plan Idea Note (R-PIN) which is a document presenting the situation of a country preparing to participate in the REDD program. The R-PIN of Cameroon carries a set of data on the state of the forest of the country and the sustainability with which the forest is managed as recommended by government policies. The R-PIN document of Cameroon has been drawn up in close collaboration with WWF and has been validated by competent authorities. The sending of the R-PIN of Cameroon to the World Bank enhanced its selection among countries that will benefit funding grants to prepare for the REDD mechanism.

The involvement of indigenous peoples in the initiatives of REDD is near absent as they are not represented at the level of the pilot committees charged with the setting up of the pilot project mentioned previously. The statistical measurement of deforestation and degradation, as well as the calculation of carbon stock and the building of capacities are the main activities that are currently carried out by REDD. These are expert-oriented activities that are reserved for the staff of MINEP and those within the focal point of REDD. Little room is given to indigenous peoples to participate because they lack both information and the possibility to act or react to REDD initiatives.

The World Resources Institute, however, organized an outreach workshop through which some Bantus and Baka populations in Lomié in the East Region of Cameroon were contacted. This action was just a drop of fresh water in the sea considering the fact that many projects use the principle of assistencialism to achieve their initially set objectives. In this respect, it has been observed that the sensitization of the population on issues of REDD is a challenge for national and local governments, associations and NGOs that are more enlightened on REDD. A civil society member testified:

> *It is difficult to talk about REDD in Cameroon now, only experts in the domain can give an opinion on the issue. For me, it is necessary to organize many seminars for people to understand what REDD*

is all about. Some of us who have often heard about this process in conferences know little about it, what more with local populations? This makes it difficult for those of us who are always called upon to provide answers to questions asked by some citizens and for officials who are charged with preparing the country for this process. Indigenous peoples have their own way of perceiving things which is different from others. There is need, therefore, to adequately explain REDD's policies to the people in order to avoid misunderstandings and to avert conflicts between traditional systems of natural resource management and REDD policies.

The challenges of REDD are not lived by members of the civil society alone, but also by officials of the Ministry of Environment and Nature Protection. One of them, known as Maurice, had this to say, "I have heard about REDD in corridors and discussions with some colleagues, but I don't really know what it is all about. I will try to read books that I have just received to understand the concept."

These statements show the extent to which not only the indigenous peoples but also the officials in the ministries and members of the civil society are still unfamiliar with REDD. The concentration of all REDD-related activities at the level of the central administration (MINEP) further complicates both the implementation of the process and the adoption of the REDD by indigenous populations. With respect to the expected implementation, State policies on REDD had not involved local populations from its very inception and this approach will largely undermine implementation since indigenous peoples who have been eschewed from the process from the beginning will feel less concerned with it during the implementation phase. Women who are effective in door to door sensitization on issues such as the advantages of REDD (improvement in health, food and climate conditions and sustainable development) needed by present and future generations are not involved in the process.

Indigenous Peoples and Forest Management Practices

Recent forestry and wildlife reforms introduced in Cameroon in 1994 paved the way for participative and decentralized forest and forest-based resource management. These reforms have indeed introduced the notions of community forestry, communal forestry and areas of synergetic interest that are under the aegis of local communities from where part of the proceeds from the exploitation of forest and wildlife resources is being transferred to the local populations. The involvement of local populations in the management of natural resources by the government through these reforms appeared to be a potential vector for sustainable development in rural areas especially as the arrogation of resource ownership by the State in the past led to a marginalization of the natives and their exclusion from decision making circles and benefit sharing. That, notwithstanding, local natural resources management institutions complicate the resource management process in community forests or community hunting areas as little impetus is given to the priorities, interests and needs of the surrounding Bantus and indigenous communities. Rural companies in the forest Regions of Cameroon have developed an inextricable relationship with the forest ecosystem since it serves as a natural reservoir for wood energy, construction material, and a source of bush meat, fish and other non-timber forest products such as fruits, nuts, and spices. The forest is also used for grazing, crop cultivation and for the harvesting of rattan for the making of household furniture and utensils, and the harvesting of plants and animals for local pharmacopeia. This use of forest and forest-based resources to meet the socio-economic and cultural needs of indigenous peoples confirms the inherent traditional management of natural resources by local populations.

Indigenous peoples have developed various environmental management skills. The example of bushfire management will illustrate their environmental management skill. When a wildfire occurs, indigenous peoples use concerted effort to put it out with well adapted branches of trees. They use branches that have a lot of foliage since they burn with difficulty when wet or

green. The choice of branches by the populations to face fire is illustrative of the environment protection techniques they have acquired. Similarly, hunting activities, gathering and fishing are not carried out at random. One of them observed that the hunting of animals is selective. Some taboos of indigenous peoples prohibit the killing of young animals and pregnant as well as suckling females. Easily captured species are protected by taboos that prohibit young people from capturing them and the hunting seasons of indigenous peoples do not coincide with procreation periods of animals. In the same vein, care is taken in fishing because only fish that have reached the age of maturity are captured while younger ones are freed. This implies that indigenous people are quite versed with issues of biodiversity conservation. There are even community forests that are managed exclusively by indigenous Baka communities in the Upper Nyong Division. These findings were made with the support of an NGO and they are indicative of the fact that indigenous communities are capable of implementing both traditional and modern conservation strategies provided their capacity is built for them to comply with the prescriptions of the law.

Customary governance system is based on the respect of hierarchy within a local community. The implementation of the customary law is easy as it is binding to everyone in the community especially in matters of conflict management and the sharing of property among family heads. Many studies, however, showed that natural resource management as prescribed by the Cameroonian law does not reflect this traditional reality of natural resource management (Kamto 1996 and Van Walder et al. 1999). The current forestry and wildlife law in Cameroon lacks legitimacy and its implementation is therefore ineffective. Following these weaknesses of the law and the fact that its implementation is ineffective, it does not benefit the State, the ecology or the local communities. The flaws in the law have largely undermined the pilot project of REDD, particularly as it is still at its embryonic stage.

RECOMMENDATIONS AND THE WAY FORWARD

What emerges from the information gathered, analyzed and presented in this paper have enabled us to conclude that issues of climate change, forest and indigenous peoples in Cameroon are still to be adequately addressed in the REDD project. Issues examined so far reveal that the government of Cameroon is yet to come to terms with the drivers of deforestation and forest degradation and to perceive the impact of climate change on indigenous peoples and the capacities of indigenous peoples to adapt to climate change. The government of this country, as well as many governments in the tropical world, lack trend data to monitor impacts of climate change on indigenous peoples and it does not have legal frameworks or policy approaches that are friendly towards carbon sequestration or that safeguard the interest of indigenous peoples that depend on forests for a livelihood. Stating in the preamble of the January 18, 1996 constitution of Cameroon that the government is in charge of protecting the rights of minorities and indigenous peoples in accordance with the law is grossly insufficient.

The findings of this stud show that the existing legal frameworks have not addressed issues of tenurial rights, carbon credits and the trading of use rights in forest compartments that have been allocated to local populations as community forests. Government and indigenous people will provide solutions to various problems. While the forest resources in these compartments belong to the local populations, the sub-soil resources are reserved for the State. Local populations are still to be granted rights to trade on non-timber forest products (NTFPs) they harvest from these forest compartments.

Although REDD initiatives have tended to boast the force of argument of indigenous peoples in terms of them benefiting from carbon credits, the REDD mechanism itself would end up being a source of other problems to indigenous peoples as it doesn't tackle the main causes of deforestation. In addition, it will lead to disputes over forests and the placing of value on standing forest against the livelihoods of indigenous peoples. The consequences will be an upsurge of famine and malnutrition in native communities. Based on these findings, a number

of recommendations have been made which are here formulated as follows:

General Recommendations

- The government should put in place a legal framework that addresses land tenure issues and natural resource management. Such a legal system will safeguard the rights and the units of social life of indigenous peoples in protected areas without disrupting the national land right system;
- There should be an impact assessment of forestry activities on indigenous communities. Forest exploiters should have the obligation to assess the specific impact of their operations on indigenous peoples and to provide palliative measures;
- A mechanism should be put in place to ensure the involvement of indigenous peoples in the national political activities. At least two indigenous peoples should represent native communities in the Senate and at least one seat should be reserved for them in the decentralized regional institutions;
- Participative studies should be carried out on obstacles hindering the welfare of indigenous communities in Cameroon so that a national policy should be developed based on the results of the studies. Such hindrances could be sought in the domains of poverty, powerlessness, ignorance, interest, tenure contest between customary and statutory systems, and non enforcement of clear and devolved statutory tenure;
- An efficient REDD policy should be put in place. Cameroon, like many other countries in the Congo Basin, has not yet drawn up a REDD policy. This situation has made it difficult for issues related to customary laws and forest resource management to be addressed. It is therefore important to develop a complementary framework between traditional forest resource management

systems and REDD policies. It is obvious that the protection of the rights of indigenous peoples have become imperative for effective implementation of the REDD process in Cameroon.

Specific Recommendations in the REDD Process

- In spite of changes brought about mostly by various pioneering and innovative actions, it will be necessary to improve the protection of rights of indigenous peoples in order to facilitate their efficient adherence to the evolution of REDD process. To this effect, the government should seize this opportunity to develop the areas in which indigenous peoples live from the fallouts of REDD;
- To succeed in the REDD process in the future, it is important to involve indigenous peoples in all the structures that are concerned with the mechanisms for the conception, implementation, follow-up and assessment of the projects of REDD. Similarly, effective involvement of associations that fight for the protection of the rights of indigenous peoples and REDD-related capacity building is imperative;
- The authorities must try to ensure that the profits from REDD initiatives are shared equitably among all the stakeholders;
- The flaws in the law mentioned earlier are detrimental to indigenous communities; the policies and projects must take into account the cultural peculiarities of indigenous peoples. This will check their marginalization in the domains of health, education, natural resource management and the national political activities. The difficulties are mainly caused by the ignorance of indigenous peoples. This ignorance misleads public decision-makers who conceive fake solutions that at times are even contrary to their cultures and traditional practices. Hence, there is a need to carry out a socio-anthropologic study in the field to prepare for the launching of REDD mechanism.

- In addition, the laws conceived on protected areas are against indigenous peoples as they limit the opportunities of their use rights and the benefits from these protected areas. It is essential to correct these legal biases against indigenous peoples so that they could feel comfortable in their environment;
- The financial support of REDD should be managed in a way that benefits indigenous peoples through infrastructural development in the domains of health, education, transportation and communication;
- Sensitization of the masses on issues of REDD is important for the involvement of everybody in the initiative. The process of REDD should protect areas with high potentials for cultural values from logging operations. The REDD mechanism must encourage efficient conservation of resources that are used by indigenous communities;
- Improvement of the health of women and children should be a priority in the local development process that is triggered by REDD projects.

Monitoring and Assessing REDD

It is therefore necessary to build the capacities of indigenous communities on the activities of REDD especially the most vulnerable groups such as women and young girls. Their capacity can be built through education and training which aim at sensitizing members of indigenous communities and women on their rights and responsibilities towards the REDD process. When awareness has been created on issues of their rights and responsibilities towards the REDD process, they can then strive for their economic and social benefits from the fallouts of REDD.

In summary, it is important to boost women mainstreaming initiatives and to grant funds through REDD for micro-projects set up by women and other vulnerable groups. Health conditions of indigenous peoples must be made an integral part of environmental conservation. The fallouts of REDD could be used

to provide indigenous peoples with hospitals and health centers that have basic equipment and qualified human resources. Such health establishments should have pictures of childbirths and women who have delivered in health centers in order to encourage indigenous women to deliver in health units so that the number of deaths during delivery at home will be reduced.

Endnotes

[1] A 2003 estimate of the National Institute of Statistics.

[2] Birgitte Feiring, 2008, includes the indigenous population in the strategies of the poverty reduction BIT.

[3] Wunder, 2003, Wunder et Sunderlin (2004).

[4] Capistrano, 1990; Barbier et al. 1994, Vincent 1994.

[5] ECOFAC, Report on the activity form July–December 2001, p. 50.

[6] Robinson TCHAPMEGNI communication, The actuality of the land question in Africa, during a conference on land: the problem of the land property in Cameroon, held on November 18, 2005 in Mbalmayo.

[7] KAGONBE Timothé e and DOGMO MINKEM Mercelin, Presentation of project and steering REDD in Cameroon, Sao José Dos Campos, Brazil, February 06, 2009.

[8] Pigname Jean Théodore is the coordinator of the NGO Planet Environment At stake. This organization works in the protection of the environment through sensitization on selection and on the recycling of rubbish.

[9] COMIFAC, 2008, preparation of the 8th FNUF session.

[10] This prescription was revised and substituted for the operational policies PO/PB 4.10.

[11] Arrête, N°0648/MINFOF of December 10th 2006 focusing on the list of animal categories (A, B, and C).

[12] Articles 21(1) and 21(2) of the law.

[13] For more information on pygmies consult: http://www.fondaf.org.

[14] 20/03/98.CERD/C/304/Add.53.

[15] REDD+, p. 106.

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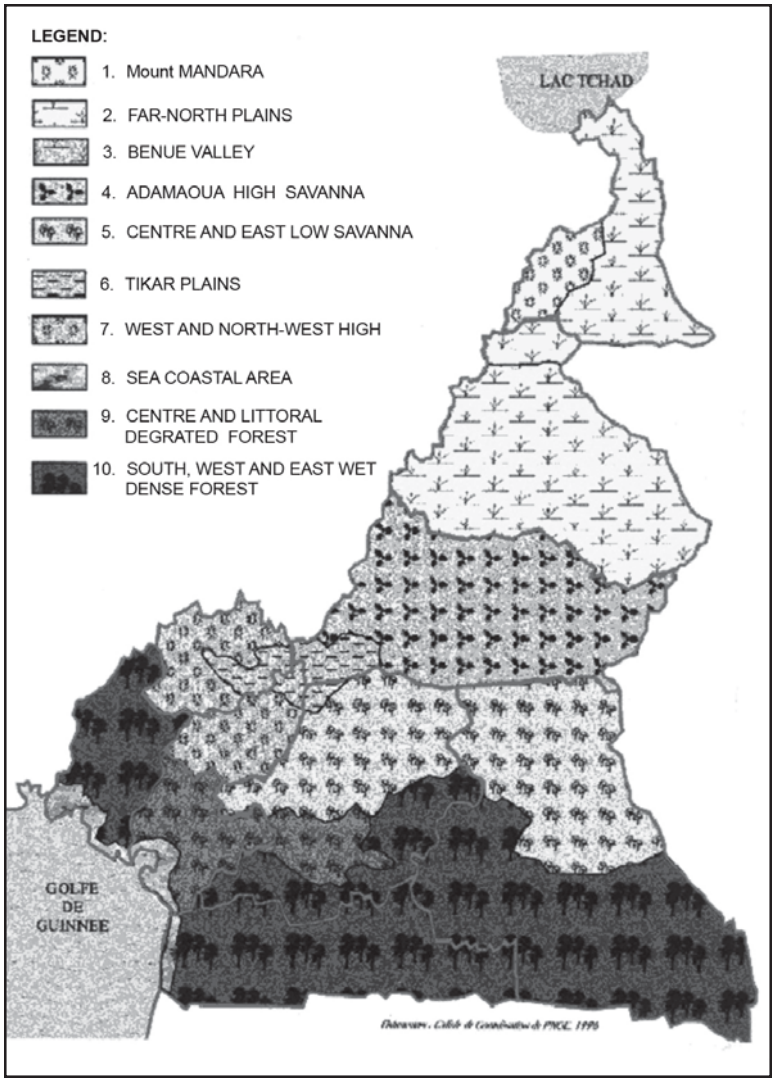
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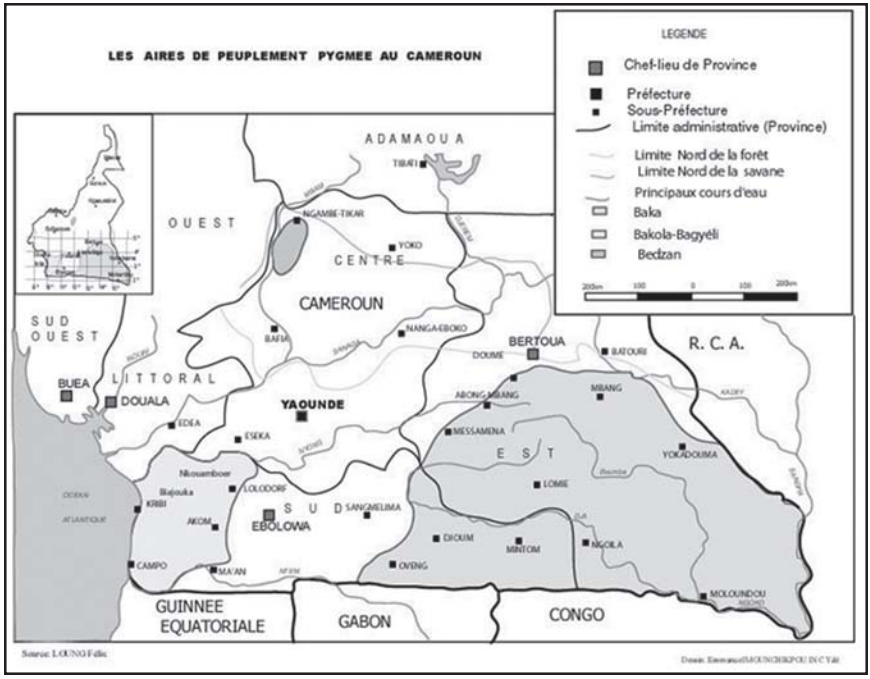
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Annexes

Annex 1. Major Ecological Areas in Cameroon



Annex 2. Area Inhabited by Pygmies in Cameroon



The implementation of the United Nations Declaration on the Rights of Indigenous Peoples and the enactment and implementation of national policy frameworks and legislation that protect indigenous peoples' rights will definitely reinforce the capacity of indigenous peoples to mitigate and adapt to climate change.

-Victoria Tauli-Corpuz

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