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

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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.

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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 System³ 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 eyeing 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 improvements⁹ 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 Board¹⁵ (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, devolution²⁰ 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 from 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 Foundation²¹ 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 forests²³ 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-

conomic 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 and³⁰ 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 Change³¹

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 ¹ 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 Protocol³² in 2003 and created a Presidential Task Force on Climate change (PTFCCC) in 2007 (otherwise known as the Administrative order 171). The PTFCCC³³ 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 Action³⁵ 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 Sarangani 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 Sagara-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 1999³⁹ as an act to promote and protect the global environment to attain sustainable development. As a signatory to the ASEAN Agreement on Transboundary Haze Pollution⁴⁰ 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 airsheds⁴¹ in the country and establishment of multi-sectoral 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 opportunities⁴² 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 REDD⁴⁴ 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 Areas⁴⁸	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
Mantalingahan, (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, Karkanaey, 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 (<i>The Mindoro Post</i> 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	Ikalan

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/ph/>).

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 jatropa. Ang pinyahan umaabot sa 100 ektarya at 10 ektarya para sa cassava at tuba-tuba (jatropa).* (This grazing land is now planted to pineapple, sugar cane and jatropa. The pineapple plantation is estimated to be 100 ha while 10 ha were planted with cassava and jatropa) - 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.

³⁹The 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.

References

- Abayao, Leah, 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. Tms (digital file, publication forthcoming).
- Agri Business Week. 2010. Sustaining the Cordillera as the watershed of North Philippines. Available at <http://www.agribusinessweek.com/sustaining-the-cordillera-as-the-watershed-of-the-north-philippines/>. Accessed on 24 February 2010.
- Allad-iw, Arthur. 2009. Panag-apoy: Sagada's fires of remembrance. *Northern Dispatch Information Service*. Available from: <http://dateline.ph/?tag=northern-dispatch>. Accessed 4 February 2010.

- Arquiza, Yasmin D. 2009. *Seeing REDD: Towards reducing emissions from deforestation and degradation in the Philippines*. Manila, Philippines: Unpublished paper commissioned by the Non-Timber Forest products-Exchange Programme.
- Barnsley, Ingrid. 2008. Reducing emissions from deforestation and forest degradation in developing countries: A guide for indigenous peoples. Available from: http://www.ias.unu.edu/resource_centre/REDDPocketGuide_web.pdf. Accessed 16 February 2010.
- Bengwayan, Abigail. 2004. IP group scores DENR for favoring loggers. Available from: <http://www.bulatlat.com/news/4-46/4-46-loggers.html>. Accessed 4 February 2010.
- BirdLife International. 2009. Important bird area fact sheet: Mount Kitanglad Range natural park, Philippines. *Data zone*. Available from: <http://www.birdlife.org> on 25/2/2010. Accessed 25 February 2010.
- Butic, Moise and Robert Ngidlo. 2002. Muyong forest of Ifugao: Assisted natural regeneration in traditional forest management. Available from: <http://www.fao.org/docrep/004/ad466e/ad466e06.htm>. Accessed 22 November 2009.
- Camacho, Leni D. 2008. Prospects of forest investment for carbon credit in the Philippines. Available from: http://www.kgpa.or.kr/engboards/view/eng_reldoc/848/page:1. Accessed 24 February 2010.
- Canadell, Josep. 2002. Land use Change and the terrestrial carbon cycle in Asia. Available from: <http://www.gcte.org/APN%20Kobe%20Report.pdf>. Accessed 26 February 2010.
- Carandang, Antonio P. 2005. National forest assessment: Forestry policy analysis, Philippines. Available from: <http://www.fao.org/forestry/10541-1-0.pdf>. Accessed 19 January 2010.
- Carlos' Think Pieces. 2008. Disadvantages of the Philippine biofuel program. Available from: <http://butalidnl.wordpress.com/2008/02/19/disadvantages-of-the-philippine-biofuel-program/>. Accessed 23 February 2010.
- CDM registration sought for Ikalahan indigenous group's reforestation project. Available from: <http://www.worldagroforestrycentre.org/af2/MediaRelease?q=node/141>. Accessed 16 February 2010.
- CoDe REDD. 2009. Background. Available from: <http://ntfp.org/coderedd/about-code-redd/background/>. Accessed 4 February 2010.
- _____. 2009. REDD: Something to dread or the way ahead? In Joint Visayas-Mindanao consultative workshop on exploring forest carbon revenues for Philippine forest-based communities. Available

- from: http://ntfp.org/coderedd/wp-content/uploads/2009/12/REDD_Viz_Min_proceedings.pdf. Accessed 1 February 2010.
- Conservation International. Biodiversity hotspots. Available from: <http://www.biodiversityhotspots.org/xp/hotspots/philippines/Pages/default.aspx>. Accessed 27 January 2010.
- Cronin, Richard and Amit Pandya. 2009. Exploiting natural resources: Growth, instability, and conflict in the Middle East and Asia. Available from: http://www.stimson.org/rv/Natural_Resources/Exploiting_Natural_Resources-Chapter_4_Kobayashi.pdf. Accessed 4 February 2010.
- de Vera, Dave Vera and Datu Johnny Guina. 2008. The Igmale'ng'en sacred forests of Portulinhart of the Ancestral Domain conserved by the Talaandig Peoples of Mindanao, Philippines. Available from: http://cmsdata.iucn.org/downloads/portulinhart_philippines_report_icca_grassroots_discussions.pdf. Accessed 12 February 2010.
- Delgado, Marc Elgin M. and Frank Canters. 2009. Determining the accessibility of basic services and resources in an agricultural community in the Philippine uplands under seasonal weather variations: Combination of participatory-GIS and sustainable livelihoods approaches. Available from: http://www.openmeeting2009.org/pdf_files/Pd%20papers/mdelgado_fullpaper_IHDP09.pdf. Accessed 19 January 2010.
- Durst, Patrick B., Thomas Waggener, Thomas Enters and Tan Lay Cheng. 2001. Forest out of bounds: Impacts and effectiveness of logging bans in natural forests in Asia-Pacific. FAO of the United Nations Regional Office for Asia and the Pacific. Available from: <http://www.fao.org/DOCREP/003/X6967E/x6967e07.htm>. Accessed 19 January 2010.
- El Niño R&D Technical Working Group, PCARRD/PCAMRD. 1998. Basic concepts in watershed management. Available from: http://www.pcarrd.dost.gov.ph/enso_old/R&D_Overview/forestry/guidebook/chapter2.htm. Accessed February 4, 2010.
- Ellorin, BenCyrus G. 2002. Degradation of natural resources creates conflict and how people are coping to reverse the trend. In the Regional workshop on land issues in Asia held in Hotel Cambodiana, Phnom Penh, Cambodia, June 4-6, 2002. Available from: <http://www.landcoalition.org/pdf/wbellorin.pdf>. Accessed 23 July 2010.
- Executive Order 192. Available from: <http://www.psdn.org.ph/chmbio/eo192.html>. Accessed 21 January 2010.
- FAO News Room. 2006. Forests and climate change: Better forest management has key role to play in dealing with climate change.

- Available from: <http://www.fao.org/newsroom/EN/focus/2006/1000247/index.html>. Accessed 22 January 2010.
- Farhan, Mauricio. 2002. Philippines: Indigenous peoples and the convention of biological diversity. World Rainforest Movement. Available from: <http://www.wrm.org.uy/bulletin/62/Philippines.html>. Accessed 23 February 2010.
- Finally, a renewable act. Manila Times, December 18, 2008. Available from: <http://www.manilatimes.net/national/2008/dec/18/yehey/opinion/20081218opi1.html>. Accessed 23 February 2010.
- Five, Ding Cervantes. 2007. Mining firms ordered closed in Zambales. Available from: <http://www.minesandcommunities.org/article.php?a=2314>. Accessed 24 February 2010.
- Forest Management Bureau (FMB). 2009. Philippines forestry outlook study. In *Asia-Pacific Forestry Sector Outlook Study II* (Working Paper Series, Working Paper No. APFSOS II/WP/2009/10). Available from: <http://www.fao.org/world/regional/rap/APFSOS/2009-10Philippines.pdf>. Accessed 6 Jan 2010.
- Foronda, Anthony. 2008. REDD and A/R CDM: Experiences in the Philippines. Available from: http://maidon.pcarrd.dost.gov.ph/joomla/resources/climate%20change/PCARRD_Jakarta.pdf. Accessed 2 February 2010.
- Gould, David Gould. 2002. The evolution of land tenure and in forestry management. Available from: <http://www.spatial.maine.edu/~onsrud/Landtenure/CountryReport/Philippines.pdf>. Accessed 5 February 2010.
- Gingog IFMA “no consent” from IPs. SunStar (Cagayan de Oro). Available from: <http://www.sunstar.com.ph/cagayan-de-oro/gingog-ifma-no-consent-ips>. Accessed 12 February 2010.
- Guerrero, Chrissy. 2009. Paying the town REDD. Available from: <http://natureandpoverty.net/code-redd/news/article/paying-the-town-redd-578/>. Accessed 5 February 2010.
- Guiang, Ernesto S., Salve B. Borlagdan, Juan M. Pulhin. 2001. Community-based forest management in the Philippines: A preliminary assessment. Available from: <http://samdhana.org/uploaded/CBFM-Part%201.pdf>. Accessed 19 February 2010.
- _____, and Gem Castillo. 2005. Trends in forest ownership, forest resources, tenure and institutional arrangements in the Philippines: Are they contributing to better forest management and poverty reduction?. Available from: <ftp://ftp.fao.org/docrep/fao/009/j8167e/j8167e11.pdf>. Accessed 9 November 2009.
- Highlights of the National Consultation on REDD Held in Quezon City on April 28-29, 2009. Available from: <http://ntfp.org/coderedd/wp->

content/uploads/2009/12/REDD_natl-consultation_-
highlights1.pdf.

Institute of Philippine Culture (IPC). 2001. Community-Based Forest Management in the Philippines: A Preliminary Assessment. Quezon City: Ateneo de Manila University. Available from: <http://samdhana.org/uploaded/CBFM-Part%201.pdf>. Accessed 23 July 2010.

International Union for Conservation of Nature (IUCN). 2009. REDD mapping, baseline piloting and local stakeholders consultations. Available from: http://www.nciucn.nl/funded_projects/redd_mapping_baseline_piloting_and_local_stakeholders_consultations_1/. Accessed 15 February 2010.

Kalikasan: People's Network for the Environment. 2008. Lumad alliance bow to stop large-scale mining and jatropa plantations in Mindanao In the October 16, 2008 Press release. Available from: <http://www.kalikasan.org/cms/?q=node/209>. Accessed 23 February 2010.

_____. 2009. Critique of the Philippine climate change act of 2009. Available from: <http://www.kalikasan.org/cms/?q=node/311>. Accessed 23 February 2010.

Kho, James and Eunice Agsaoay-Sano. n.d. Country study on customary water laws and practices. Available from: <http://www.fao.org/legal/advserv/FAOIUCNcs/Philippines.pdf>. Accessed 24 February 2010.

Lasco, Rodel D. 2002. Integrated assessment in the Philippines; a case study material used in AIACC Project Development Workshop (TWS) Held in Trieste, Italy 3 June 2002. Available from: <http://www.google.com/search>.

_____. 2002. Forest carbon budgets in Southeast Asia following harvesting and land cover change. Available from: <http://www.scichina.com:8082/sciCe/fileup/PDF/02yc0055.pdf>. Accessed 26 February 2010.

_____. Visco & J. M. Pulhin. 2001. Secondary forests in the Philippines: Formation and transformation in the 20th Century. *Journal of Tropical Forest Science* 13, (4) 2001: 652-670. Available from: http://www.cifor.cgiar.org/publications/pdf_files/SecondaryForest/Lasco.pdf. Accessed 19 January 2009.

_____ 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. Available from: http://espace.uq.edu.au/eserv/UQ:8168/n11._philippine_.pdf. Accessed January 20, 2010.

- _____, Florencia B. Pulhin, Patricia Ann J. Sanchez, Grace B. Villamor, and Karl Abelard L. Villegas. 2008. Climate change and forest ecosystems in the Philippines: Vulnerability, adaptation and mitigation. Available from: http://www.zef.de/module/register/media/ff64_Climate%20change%20and%20Forest%5B1%5D.pdf. Accessed 24 February 2010.
- Magcale-Macandog, Damasa B. and Edwin R. Abucay. n.d.. Understanding and conserving indigenous knowledge on sustainable natural resource management in the Cordilleras region of the Philippines. Available from: <http://www.infosys.ecoinfolab.com>. Accessed 24 February 2010.
- Malanes, Maurice. 2008. Tribe, farmers guard against biopiracy. Available from: http://services.inquirer.net/print/print.php?article_id=20080301-122218. Accessed 2 February 2010.
- Malaya.com.ph. [News]. 9 August 2008. Available from: <http://www.malaya.com.ph/Aug09/metro1.htm>. Accessed 24 February, 2010.
- Manila Times. 2008. Finally, a Renewable Act. Available from <http://www.manilatimes.net/national/2008/dec/18/yehey/opinion/20081218.html>. Accessed on 23 February 2010.
- Mendoza, Lorelei C. , Rufa Guiam and Luisa Sambeli. n.d.. Mapping and analysis of indigenous governance practices in the Philippines and proposal for establishing an indicative framework for indigenous people's: Governance towards a broader and inclusive process of governance in the Philippines. Available from: https://eprints.soas.ac.uk/4465/1/Mapping_and_Analysis_of_Indigenous_Governance-Philippines_Participatory_Governance_Case_Study.pdf. Accessed 11 February 2010.
- Merilo, Ma. Gerarda Asuncion D. 2001. Greenhouse gas mitigation strategies: The Philippine experience. Available from: http://unfccc.int/files/meetings/workshops/other_meetings/application/pdf/asuncion.pdf. Accessed 22 February 2010.
- Montanosa Research and Development Center, Inc. (MRDC). n.d. Traditional resource management in the cordillera. Ppt.file (Photocopy).
- Molintas, Jose Mencio. 2004. The Philippine indigenous peoples' struggle for land and life: challenging legal texts. In *Arizona Journal of International & Comparative Law* 21(1). Available from: <http://www.law.arizona.edu/Journals/AJICL/AJICL2004/vol211/Molintas.pdf>. Accessed 19 February 2010.
- Moutinho, P. , M. Santilli, S. Schwartzman and L. Rodrigues. n.d. Why ignore tropical deforestation? A proposal for including forest

- conservation in the Kyoto Protocol. Available from: http://www.joanneum.at/REDD/Moutinho_et_al.pdf. Accessed February 24, 2010.
- National Framework Strategy on Climate Change 2010-2022*. n.d.
- National Statistical Coordination Board. 2005. 2005 Pilot study on the diagnosis of indigenous people's rights to ancestral domains in the Philippines. Available from: <http://www.nscb.gov.ph/metagora/default.asp>. Accessed 23 July 2010.
- New Countries join the UN-REDD programme: The UN-REDD programme welcomes eight more countries from Latin America, Africa, Asia and the Pacific to the programme. 2010. *UN REDD Newsletter* 8. Available from: http://www.un-redd.org/Newsletter6_Eight_New_Observer_Countries/tabid/3277/language/en-US/Default.aspx. Accessed 26 February 2010.
- Occidental Mindoro bans large-scale mining, too. 2009. *The Mindoro Post*, Dec 11. Available from: <http://mindoropost.com/2009/12/11/occidental-mindoro-bans-large-scale-mining-for-25-years/>. Accessed 24 February 2010.
- Office of the President, Republic of the Philippines. 2005. What's a forest? DENR harmonizes definition with international standard. Available from: http://www.op.gov.ph/index.php?option=com_content&task=view&id=23332&Itemid=1. Accessed 25 March 2010.
- One Alternative Energy Blog. 2007. Philippines biofuels Act signed into law. Available from: <http://www.alternative.com/biofuel/2007/01/12/philippine-biofuels-act-signed-into-law/>. Accessed 22 February 2010.
- Pazzibugan, Dona and TJ Burgonio. 2008. RP food supply in peril. In *Philippine Daily Inquirer*, 15 January.
- Pedroso, Erlina. 2008. Documentation and monitoring CEDAW implementation in the Philippines. *Asia Indigenous Women's Magazine* (unpublished).
- Peralta, Athena. 2008. Gender and climate change finance, a case study from the Philippines. Available from: <http://www.wedo.org/prototype/wp-content/uploads/genderandclimatechangefinance.pdf>. Accessed 10 March 2010.
- Philippine forest and wildlife law enforcement situationer and core issues. Available from: http://pdf.usaid.gov/pdf_docs/PNADL681.pdf. Accessed on February 15, 2010.
- Philippine Information Agency(PIA). 2008. Farmers beginning to gain additional income from jatropha plantations. Available from: <http://>

- [/pia-misoroccam.blogspot.com/2008_07_14_archive.html](http://pia-misoroccam.blogspot.com/2008_07_14_archive.html). Accessed 23 February 2010.
- PinoyBusiness.org. 2008. Renewable energy act of 2008. Available from: <http://pinoybusiness.org/2008/12/20/renewable-energy-act-of-2008/>. Accessed 22 February 2010.
- Plantilla, Anabelle E. 2009. Community forest management in Tubo. Available from: <http://www.manilatimes.net/national/2009/june/06/yehey/opinion/20090606opi4.html>. Accessed 25 January 2010.
- Proceedings summary of the technical workshop on the review and revisions of NIPAS Act IRR held at Montevista resort, Calamba , Laguna on on July 20-22, 2005. Available from: Accessed 25 June 2010.
- Ressureccion, Bernadette P. 2003. Edging women out? Gendered political practices in upland development. In the 1st International Conference Women and Politics in Asia Held in Halmstad- Sweden June 6-7, 2003.
- Romero, Paolo. 2009. GMA signs climate change act. Available from: <http://www.philstar.com/article.aspx?articleid=517009&publicationssubcategoryid=63>. Accessed 20 February 2010.
- Romero, Purple S. 2009. Philippines: Will tribes gain from climate change talks?. Available from: <http://www.abs-cbnnews.com/special-report/09/05/09/ip-rights-climate-change-talks>. Accessed 9 September 2009.
- Rovillos, Raymundo, Aida Cadiogan and Wilfredo Alanguí. 2000. The World Bank policy on indigenous peoples: The conservation of priority protected areas system project (CPPAP) in Bataan, Philippines. n.p.: Tebtebba Foundation. Available from: <http://www.wrm.org.uy/actors/WB/IPreport2.html>. Accessed 26 May 2010.
- _____ and Daisy N. Morales. 2002. Indigenous peoples/ethnic minorities and poverty Reduction-Philippines. Available from http://www.adb.org/Documents/Reports/Indigenous_Peoples/PHI/indigenous_phi.pdf. Accessed 15 February 2010.
- Sagaral-Reyes, Lina. Biofuels gain, but food farms, forests lose. *Philippine Daily Inquirer*, 1 December 2007. Available from: http://newsinfo.inquirer.net/inquirerheadlines/nation/view/20071210-106052/Biofuels_gain%2C_but_food_farms%2C_forests_lose. Accessed 23 February 2010.
- Sajis, Dr. Percy E. n.d. Forest policies in the Philippines: A winding trail towards participatory sustainable development. Available from

- <http://enviroscope.iges.or.jp/modules/envirolib/upload/1504/attach/ir98-3-16.pdf>. Accessed 23 February 2010.
- Senga, Rafael G. 2001. Establishing protected areas in the Philippines. Available from: <http://www.georgewright.org/182senga.pdf>. Accessed 6 January 2010.
- Solons urge review of Biofuels Act. *Philippine Daily Inquirer*, 5 November 2008. Available from: <http://newsinfo.inquirer.net/inquirerheadlines/nation/view/20080115-112396/Solons-urge-review-of-Biofuels-Act>. Accessed 23 February 2010.
- Stavenhagen, Rodolfo. 2008. An essay on land, territory, autonomy and self-determination. Based on United Nations Development Programme, Human Development Report Office, Occasional Paper, Background paper for HDR 2004, 2004/14. In Discussion papers submitted by major groups, Commission on Sustainable Development Sixteenth session 5-16 May 2008. Available from: <http://157.150.195.10/esa/sustdev/csd/csd16/mg/mgdp-ip.pdf>. Accessed 12 February 2010.
- Summary report of the Global Indigenous Peoples Consultation on Reducing Emissions on Deforestation and Forest Degradation (REDD) Held in Baguio City, Philippines 12-14 November 2008. Available from: <http://www.un-redd.org/LinkClick.aspx?fileticket=qV8kimV-2b8%3D&tabid=587&language=en-US>. Accessed 19 February 2010.
- Sustaining the Cordillera as the watershed of north Philippines. *Agri Business Week*. Available from <http://www.agribusinessweek.com/sustaining-the-cordillera-as-the-watershed-of-north-philippines/>. Accessed 24 February 2010.
- Tacio, Henrylito D. 2000. Forest gone. *The Manila Times Internet Edition*. Available from: <http://forests.org/archive/asia/foregone.htm>. Accessed 26 November 2009.
- Tebtebba Foundation. Philippine indigenous peoples and protected areas: Review of policy and implementation. Available from: http://www.forestpeoples.org/documents/conservation/wcc_philippines_pa_review_wkg_dft_aug08_eng.pdf. Accessed 17 November 2009.
- The Mindanao Current. 2009. ASEAN heritage park. Available from: <http://themindanaocurrent.blogspot.com/2009/12/mt-kitanglad-is.html>. Accessed 24 February 2010.
- The Nature Conservancy. n.d. Climate change and energy: The true cost of biofuels. Available from: <http://www.nature.org/initiatives/climatechange/features/art23819.html>. Accessed 23 February 2010.

- The Philippines national report to the third session of the United Nations forum on forests. 2003. Available from: http://www.un.org/esa/forests/pdf/national_reports/unff3/philippines.pdf. Accessed 24 February 2010.
- United Nations Educational Scientific and Cultural Organization (UNESCO). 2006. Kabayan mummy burial caves. Available from: <http://whc.unesco.org/en/tentativelists/2070/>. Accessed 4 February 2010.
- Victor, Rex and Juan M. Pulhin. 2006. Review of multisectoral forest protection committees in the Philippines. Available from: <http://www.verifor.org/RESOURCES/case-studies/philippines.pdf>. Accessed 20 February 2010.
- World Rainforest Movement (WRM). 2001. Philippines: Planting trees and terror. *WRM bulletin* 50(September). Available from <http://www.wrm.org.uy/bulletin/50/Philippines.html>. Accessed 16 February 2010.
- World Resource Institute. 2003. Philippines: Clean air act. Available from: <http://projects.wri.org/sd-pams-database/philippines/clean-air-act>. Accessed 22 February 2.