



**UN COLLABORATIVE PROGRAMME ON REDUCING EMISSIONS FROM
DEFORESTATION AND FOREST DEGRADATION IN DEVELOPING COUNTRIES
JOINT PROGRAMME DOCUMENT**

1. Cover Page

Country: Panama

Prog/project Title: UN-REDD Panama Programme

UNDAF Outcome(s): *OUTCOME 8: Environmental Sustainability (biodiversity conservation, forest management, climate change mitigation, disaster risk management) is strengthened with the support of policy frameworks, national strategies and local actions.*

Programme/project Duration: 4 years

Anticipated Start/end dates): January 2010–November 2012

Fund Management Option(s): Pass-through (Parallel, pooled, pass-through, combination)

Managing or Administrative Agent: UNDP (if/as applicable)

Total estimated budget:	\$5,300,000
Out of which:	
1. Funded Budget:	\$5,300,000
2. Unfunded budget:	

Sources of funded budget:	
• Government	
• Regular/Other CBMAP	
• NGO or private	
• UN Org....	
• Donor (UN-REDD)	\$5,300,000
• Donor ...	

Names and signatures of national¹ counterparts and participating UN organizations

UN Organizations	National Partners² (including sub national partners.)
<i>Name of representative UNDP</i>	<i>LIGIA CASTRO DE DOENS ANAM</i>
<i>Name of representative UNEP</i>	
<i>Name of representative FAO</i>	

¹ Governmental, and any NGO/civil society, private sector or other partners
² For UNDP, national signatories must include the national coordinating agency and the relevant national cooperating agency

ACRONYMS

AA	Administrative Agent
ANAM	National Environmental Authority
BDP	Bureau for Development Policy
CBO	Community based Organization
CSO	Civil Society Organization
DFID	Department for International Development
ENA	National Environmental Strategy
EEG	Energy and Environment Group
FAO	United Nations Organization for Food and Agriculture
GOP	Government of Panama
IT	Information & Technology
JP	Joint Programme
JPMF	Joint Program Monitoring Framework
MDTF	Multi-Donor Trust Fund
MEF	Ministry of Economy and Finance
MOU	Memorandum of Understanding
NGO	Non-governmental Organization
NJP	National Joint Programme
OIMT	International Organization for Tropical Woods
PRODEC	Community Development Program
	Reduction of Emissions due to Deforestation and Degradation of
REDD	Forests
ROLAC	Regional Office for Latin America & the Caribbean
SAA	Standard Administrative Arrangement
SBAA	Standard Basic Assistance Agreement
SIDA	Sweden International Development Agency
SIF	Social Investment Forum
SINAP	National Protected Areas System
tbd	to be determined
TOR	Terms of Reference
UN	United Nations
UNEP	United Nations Environment Program
WCMC	World Center for Monitoring of Conservation
WWF	World Wildlife Fund

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2. Executive Summary

The National Environment Authority (ANAM) was established by Law No. 41 of July 1, 1998, also known as the General Environment Law. It lays down the principles and basic standards for the protection, conservation and recovery of the environment, promoting the sustainable use of natural resources. It also promulgates rules for environmental management and relates it to social and economic goals, in order to achieve sustainable human development in Panama.

As early as 1999, the first National Environment Strategy (NES) was adopted for the period 1999-2006. This resulted in two GEO Panama reports: one issued in 1999 and one in 2004. The Strategy also includes the Participatory Strategic Plan (1999-2004). It was adjusted in 2004: focusing on "Conservation for Sustainable Development" for the period 2004-2009, having as a vision constructed with Panamanian society a country characterized by a healthy environment and a culture of sustainability promoting attainment of a high level of human development.

The mission is to spearhead, facilitate, oversee and administer environmental management for sustainable development, with the goal of conserving, protecting, restoring and improving the environment and the natural resource base, and promoting Panama's environmental competitive advantage.

In order to achieve our proposed mission, institutions and agencies with environmental mandates are guided and coordinated; policies, laws, standards and instruments for environmental management are proposed; environmental information is provided and a culture of sustainability and capacity-building is promoted; new styles of development are defined and encouraged; advice is provided on the best use of resources; controls, follow-up, oversight, incentives and sanctions are provided. All this is for the benefit of the Panamanian State, society and ecosystems.

In accordance with this concept, our entire National Environment Strategy is clearly focused on an environmental management program in collaboration with the communities for the protection of our forest ecosystems and sea coasts. Our Strategy therefore obviously includes among its components the following objectives of a strategy for the reduction of emissions from deforestation and forest degradations:

Development objective: Incentives for increasing technical assistance and revenue for rural communities through environmental businesses, thus promoting adaptation to change, forest conservation, and biodiversity, thereby contributing to mitigation efforts.

National environment objective: To establish a link between adaptation and mitigation activities that help to improve the quality of the environment, to prevent deforestation (REDD) and to promote true sustainable development. In other words, shared global stewardship based on a watershed management program that will allow us to restore forest cover and reduce the deforestation rate in strategic alliance with the communities.

Global environment objective: Conservation of internationally important biological diversity, protection of mountain and coastal forest ecosystems (REDD) and mitigation of climate change.

As noted above, the REDD strategy for Panama is incorporated in our National Environment Strategy, which also promotes a style of shared environmental management, in which each of the social actors plays a motivating or executing role, in proportion to the efforts and resources that can be provided by the individual or within some type of organization. Accordingly, for REDD the main thrust of the work will be to provide opportunities for organized grassroots groups, to develop community investments and environmental business that enable them to coexist with the forest/ecosystem and to engage in productive/daily activities compatible with the potential of the natural resources around them.

One of the main goals of our REDD strategy, as it is in National Environment Strategy, is to involve the indigenous farming communities living in ecosystems of interest for conservation

and provision of environmental services. In order for this participation to be effective, resources are needed to encourage productive activities compatible with conservation goals and with human development needs, so that these population groups can be fully incorporated in a green economy at the local, national, and global green economy, in order to achieve efficient and sustained management of natural resources. And also changes in technology and production methods in small, medium, and large firms.

Following the guidelines of the Millennium Development Goals and implementing the international commitments made at the Conferences of the Parties to the United Nations Framework Convention on Climate Change, ANAM has initiated a direct dialogue with the country's farming and indigenous inhabitants in order to keep the various rural communities informed about the problems and opportunities connected with the work of adaptation to and mitigation of climate change. In 2008, nine forums on climate change and desertification, which dealt with the subject of REDD, were held in Panama: Chiriquí (2), Los Santos (1), Veraguas (2), Herrera (1), Coclé (1), Bocas del Toro (1) and Darién (1).

As regards the indigenous population, seven information meetings were held with the traditional authorities, in three of the five indigenous lands of the Republic of Panama. The first was held on the day on which the new authorities were selected for the Congress of the Comarca Emberá Wounaan. The newly elected cacique (chief) Betanio Chiquidama invited ANAM to explain the general principles and the status of negotiations on REDD and it was agreed to hold a follow-up meeting (**See Annex 1**). At the second meeting, the authorities gave ANAM a REDD scenario, which they had asked the firm Brinkman y Asociados Reforestadores de Centroamérica, S.A. to prepare. The procedure to be followed with this indigenous community will be defined at a workshop to be held in January with representatives of each of the 40 villages in the comarca.

In the Comarca Kuna Yala, the General Cacique requested ANAM support for his participation in the Fourteenth Conference of Parties (COP 14) in Poznan, Poland (**See Annex 2**) and a meeting in the Comarca to explain the status of the negotiations to Congress and its technical advisers, before he left for the Conference. This meeting reached important agreements on the supervision, control and joint management of the Protected Area within the Comarca (**See Annex 3**). It should be mentioned that, since COP 14, a REDD advisory workshop was held in Panama, sponsored by the Smithsonian Tropical Research Institute in cooperation with ANAM. At this event, all the indigenous groups of Panama were given information on our REDD Readiness Plan (R-Plan) strategy. Many of the indigenous groups' doubts about REDD, due to misinformation, were dispelled. The formal consultations with all the indigenous lands are described in the environmental culture component of Panama R-Plan. It is very important to highlight that continues consultation and capacity building with indigenous groups have to be permanent all along the next four years.

In order to secure this objective, six outcomes and associated outputs will be pursued, but ANAM only will concentrate in two with UN-REDD:

- ***Outcome 1: Capacity-building for implementation of specific activities under the Panama Readiness Plane for REDD strategy.***

Social Communication, Public Consultation, and Training to build capacities:

The success of the REDD strategy will, to a large extent, depend on the gradual transformation of the environmental culture of the Panamanian population, a process that has been under way for at least 15 years. That process, in turn, hinges on the ability of the State to foster responsible, shared environmental stewardship among all stakeholders. Key players in that endeavor will be the Inter-Agency Environmental System, local governments, private enterprise, project promoters, environmental NGOs, academic and scientific circles, and, above all, the grassroots of the social fabric being forged in Panama in the form of community-based organization aimed at achieving access to environmental business or investment development opportunities in the form of small and micro enterprises or cooperatives.

The basis for a genuine transformation of the environmental culture lies, indeed, in the possibility of learning from sustainable use of resources and ecosystems, introducing new knowledge and reinforcing environmentally sustainable know-how, while disseminating and applying technology to take pressure off ecosystems and improve living conditions without increasing dependence on the State. Many of the organizations that now call themselves micro or small enterprises began as environmental volunteers because they possessed the awareness and will to work to conserve, recover or protect their natural resources. Today they have learned that through organization they increase their capacity to generate greater economic and social wellbeing and gradually transform their lives and their environmental culture and, at the same time, conserve the ecosystems they defend.

Today it is a fact that Panama has a network of organizations benefiting from ANAM training and advice. Those organizations have attained or are in the process of obtaining the legal status they need to operate and obtain direct benefits from the recovery and restoration of their basins, reforestation of degraded areas, and the protection and development of mangrove forests using nontraditional practices, including the establishment of animal breeding farms, orchid farms, and a whole range of environmental services.

Outcome 2: Technical capacity to measure, report and verify the reduction of emissions from deforestation and forest degradation

2.1 National forest inventory and network of eco-physiological permanent sampling plots

With the aim of improving the levels of quality relating to data on volume and biomass of timber- and secondary native forests, considered to be of average reliability currently available in the country a national forest inventory will be taken, the design of which will be done in strict observance of the technical and statistical criteria, owing to the heterogeneous character of those ecosystems.

This inventory will be taken in layers, by life zones, and type of forests, and will involve the survey of dendrometric information and the floristic composition of the forest, and this, besides facilitating the calculation of volume, will also allow for calculation of biomass and the carbon stock. To this end, diameters will be measured at 1:30 m from the ground (DAP) in trees from 10 cm upwards and those of the commercial height. If it is possible to measure the total height, this is also done; however, in native forests this parameter is very difficult to measure because of poor visibility. Nevertheless, there are allometric equations that allow for an estimate to the total biomass as a function of the DAP. For trees less than 10 cm. in diameter, smaller units within each sample unit will be established, according to statistical criteria.

Data will also be captured of the dead leaves and the biomass of dead wood, where the amount of sample units will be dependent on the statistical criteria and the levels of certainty that are determined prior to the inventory.

The data captured in the field will make it possible to determine the biomass of the trunk, branches, and leaves through the use of allometric functions recognized and validated for mainly tropical hardwood forests. Once this information is obtained, the carbon content of the biomass per tree and per unit of surface (hectare), per zone of life, and types of vegetation (heterogenous mature forests, cativa forests, oreyzales/salt marshes, mangroves and secondary forests, according to the state of development) may be estimated.

Once the national forest survey has been conducted and the biomass and carbon per zone of life, types of forests, and state of development of these has been calculated the carbon stock for each ecosystem and zone of life may be estimated, as well as the national total.

2.2 Forest Land Monitoring System

Carbon monitoring will be carried out by quantifying carbon stocks in the biomass of the forests and soils. For that, it will use the information generated by the forest cover and land use survey, the national forest inventory, and the network of measurement plots to be established throughout the country.

These surveys will generate data on biomass by life zone, types of forest, their stage of development, and carbon in the soils. The biomass contents in each of these strata will enable us to determine the stock of carbon in each case. The national carbon stock would be the sum of all those stocks.

The above procedure will be applied in the survey of forest cover and land uses carried out every three years. The difference in carbon stocks between the years in which it is quantified determines carbon emissions and will allow inferences to be drawn regarding the effectiveness of the REDD strategy.

The network of plots to be established in the country's different strata in order to measure biomass and carbon will, by generating information every three years, allow us to achieve a gradual improvement in the robustness and reliability of data on the carbon stock and changes in it over time.

Once field data on the carbon stocks in the different life zones have been obtained, they should be correlated with the analysis derived from remote sensors, in order to obtain a more precise indication of the carbon stock in the different life zones in Panama.

Specialists will help the ANAM and CATHALAC team to correlate the data.

Panama also recognizes the need to hire an independent auditor to corroborate possible emission reduction certifications.

2.3 Reference Emissions Level scenarios

The extensive agriculture, cattle breeding, the growth of urban areas, lack of legislation, the squandering of forest resources, illegal felling of trees are referred to as the principal causes of deforestation. However, to grasp this in greater detail and to see where we stand today, it is necessary to reconstruct the history of the country's forests and to take a detailed look at what was happening in those areas in which, year after year, deforestation was taking place, and to analyze the causes in greater depth. Data on all this are dispersed in a number of agencies, which have yet to put them together.

Once we have achieved this objective, we will be in a position to develop more precise reference scenarios to be discussed by a broader panel, in which the Participants Committee of the Forest Carbon Partnership Facility (FCPF) can express its opinion and hear what Panama has to say. We mention that because these are issues currently being debated among the parties involved, who talk unofficially of historic scenarios and of going back five (5) years before the Conference of the Parties, COP-11 (on climate change) in Montreal, which takes us back to 2000.

2.4 Inventory system for greenhouse gases

Panama is finishing its Second National Inventory of GHG base year 2000. It is of the interest of Panama to move from a Tier 1 mandatory methodology under UNFCCC for a Non Annex I

Country to use the IPCC Guidelines of 2003 for the forest GHG inventory and even more to attempt the use of the propose Guidelines of IPCC 2006 AFOLU, still under evaluation. For this objective Panama will need to create the data necessary to have use these IPCC guidelines which will require to have workshops in order to train the technical personnel of ANAM under REDD Committee to achieve these goals. This is very important item in order to prepare the country to collect enough data to present this kind of GHG inventory in less than 4 years.

Agenda for Next steps

This document is in proposal form of R-Plan of the country and as such it contains information and planning gaps. However, the document identifies these gaps in its respective sections and provides a summary of the work between June and November 2009 and beyond that up to 2012.

By November 2009 the NJP program will report:

- The results of initiating the NJP capacity building program under the R-Plan of Panama, which will take place between now and November 2009, will be carried out through a participatory consultation process, placing particular attention in ensuring that the view of ethnic minorities and disadvantaged groups are factored into program of capacity building between ANAM under CIDES from City of Knowledge and UNEP. One of the results of this process will be an agreement on the role of these groups in the implementation of REDD readiness activities.*
- In the other hand, other expected result will be that CATHALAC together with FAO will start the monitoring program proposed using remote sensor analysis with the SERVIR node technology described for Panama under R-Plan proposed aiming to achieve the goals of IPCC guidelines 2003 to move to IPCC 2006 AFOLU*

3. Situation Analysis

The State of Forests

In 1947, the first national survey of the forest resources of the Republic of Panama (Garver, R.D.) estimated a forest area of 5,245,000 hectares, equivalent to 70 percent of the national territory. In 1970, the national forest inventory conducted by FAO estimated this area to be about 4,081,600 hectares, equivalent to 53 percent of the territory, indicating that between the two dates 1,880,409 hectares were deforested. The Final Report on Forest Cover and Land Use in the Republic of Panama: 1992-2000 indicates that during this period forest cover decreased to 330,569 hectares. This is equivalent to a reduction of 8.5 percent in eight years, which represents an annual loss of 41,321 hectares and an annual reduction of 1.12%. The reductions were larger in the Comarca Ngöbe Buglé (21.77 percent), Darién (13.89 percent) and Panama City (12.21 percent), where the main pockets of deforestation still persist.

Map 1: Change in the forest cover 1992-2000



Deforestation by systematic use of the slash-and-burn method started in Panama with the transition to agriculture of the first complex societies on the Isthmus, some seven thousand years ago. At the beginning of the sixteenth century, at the time of the European Conquest, alluvial land in the low and mid-level basins of the main rivers and savannas in the Western Central region of the Pacific watershed were deforested. The Conquest, for its part, resulted in elimination of over 90 percent of the indigenous population and concentration of the European presence in the Western Central region of the Pacific watershed, which became an agricultural and pastoral hinterland for the inter-ocean communication axis linking the new port cities of Portobelo, on the Atlantic, with Panama City, on the Pacific. In addition, this territorial reorganization was accompanied by the creation of internal frontiers excluding the entire Atlantic coast and Darién from direct European control.

The main consequences of these events for the later development of interactions between social systems and natural systems in Panama were the following:

- Abandonment of mixed farming combined with intensive harvesting practices – including, for example, use of savannas and mangroves as sources of protein – which was the focus of the productive activity of the aboriginal societies.
- Predominance of extensive livestock farming as the focus of agricultural activity, organized on the basis of the work of African slaves, which became the principal source of wealth, social prestige and political power.
- Persistence of indigenous methods of preparing land for farming, facilitated by the adoption of metal tools.
- Displacement of the indigenous population and other marginal groups to more degraded land in the Pacific Western Central region, to the high water basins and to territories located on the other side of the internal frontiers.
- Spontaneous reforestation of the territories on the other side of the internal frontiers, which became occupied by indigenous groups from Mesoamerica and Chocó.

Basically, this development model became a lasting structure, subordinating development of the agricultural sector to the requirements of an economy organized around the transit of cargo through the inter-oceanic region, offering as a bonus access to cheap land and manpower. This structure was at its most developed stage between the 1940s and the 1970s, with access by Panamanian agricultural production to the United States national enclave then known as the Canal Zone, which in particular generated a high demand for meat.

The cycle of extensive livestock raising gave way to increased herding, through expansion of grazing following, firstly, concentration of ownership of the most productive land in the Pacific Western Central watershed and, secondly, transformation of the forests located beyond the internal frontiers of the colonial period. In this second phase, an important role was played by migration to these territories of farmers displaced by the concentration of land ownership on the Pacific coast, which in the late 1960s had already opened up fronts of growing livestock raising in the Atlantic Western and Central regions and in Western Darién.

A correlation exists – still awaiting detailed investigation – between the forms of organization of the official United States presence in Panama and the evolution of the link between agricultural activity and forest cover. This is also important because the negotiation and application of the Torrijos-Carter Treaties occur, particularly as of the mid-1980s, in a context marked by institutional transformations (such as the creation of the Institute of Renewable Natural Resources, immediate precursor of ANAM), construction of important hydroelectric facilities, creation of a number of Protected Areas and of important indigenous lands, and the transfer to the Panamanian State of operation of the Panama Canal and management of the watershed that provides water for the inter-ocean watercourse.

In addition, these transformations coincided with important changes in the national development model. For example, while the former canal enclave became the central element of a modern hub of transnational services, the old internal frontiers were transformed into areas for the development of resources of a new kind – water, biotic and ecotourist, for example – which in turn required new and more complex forms of environmental management. At the same time, however, the age-old structures described above persisted. Consequently, the conflict between the old tendencies and the new demands and opportunities became the most pressing issue for environmental management in Panama.

The government response to this situation was the policy of conservation for sustainable development reflected in the National Environmental Strategy, which in turn embodies synergistically the REDD strategy. In the short term, the Strategy has to deal with a series of consequences of the old development model which are still negatively affecting deforestation in Panama. Among these, mention may be made of the following:

- An Agrarian Code (in the process of being amended) which in fact encourages the producer to deforest in order to sustain functional land use.
- The tendency of agricultural credit to favor the extensive livestock raising traditional in the Panamanian economy.
- The limited effectiveness of title deeds as a means of achieving territorial stabilization of the farming population
- The low opportunity cost represented by forests for the productive activities of the indigenous and farming communities.
- The takeover of land and speculation by agribusinesses and other firms, which take advantage of weaknesses in the current legislation.
- The persistence of an environmental culture geared to livestock raising and hostile to forests, and,
- The consequences of settlement policies of agricultural frontiers in the 1970s, in the Central Atlantic region and Darién.

These problems have generally been tackled by a series of initiatives designed to facilitate the change process in environmental management, by the organization of a well-structured market for environmental goods and services, as the best way of developing natural capital by developing social capital. With this aim, the government, in partnership with the private sector and with indigenous and farming grassroots organizations, is taking measures to:

- Improve the transfer of sustainable technology to rural communities, in order to boost and diversify production for personal consumption and for the market in areas already equipped and to limit the expansion of such activities to forest areas.
- Organize a system of payment for environmental services that encourages the preservation and appropriate use of forest resources and biodiversity.
- Delimit the forest heritage of the State.
- Create the necessary socio-economic instruments for implementing the country's environmental land use plans.
- Introduce a policy of infrastructure development incorporating plans for conservation of forest cover.
- Improve oversight capacity to control tree felling.

In this connection, ANAM has designed a Sustainable Forest Model (SFM), following the principles and basic outline of the NES and of the Forest Policy of Panama³. The SFM gives the population forestry alternatives such as: promotion of reforestation on a commercial and community scale; conservation and restoration; reduction of emissions from deforestation and degradation of forests; research and education on forests; and institution-building and job creation to increase the forest sector's exports and competitiveness, thereby generating benefits for the population and foreign exchange for Panama.

Accordingly, the SFM focuses on three main programs: the Ecosystem Restoration Program; the Forest Administration Program and the Training, Research and Dissemination Program. This illustrates the need to build the national forest history as suggested in chapter 7 of this document.

These programs use watersheds as a unit of management, thus including the protected areas, to encourage industrial and community reforestation on lands with a forestry potential and to

3 Executive Decree N° 2 of January 17 2003, "By which the principles and general guidelines of the Panamanian Forestry Policy are approved" ("Por el cual se aprueban los principios y lineamientos básicos, de la Política Forestal de Panamá"), which serves as a base for the development of plans and programs that contribute to the improvement of the forestry sector.

improve the social, economic and environmental indicators of Panama. They all provide for responsible participation by all sectors and stakeholders in the conservation and sustainable use of forest ecosystems, in order to decrease vulnerability and promote mitigation through carbon capture and adaptation to the effects of global warming.

Panama has a Plan of Action to Combat Drought and Desertification, meeting the requirements of the United Nations Convention to Combat Desertification, which was ratified by Law No. 9 of 1996. The zones with the greatest degradation identified in the Plan are the Veraguas Savanna, Cerro Punta, Arco Seco and the Comarca Ngobe Buglé, where land has been degraded by the effects of deforestation and use of unsustainable agricultural practices.

The environmental legislation in force establishes that promoters of development projects must submit to ANAM as part of their Environmental Management Plans a reforestation program to offset the environmental impact caused by their project in forests or vegetation cover. In the environmental legislation, environmental compensation is viewed as a management tool applicable to development projects at the national level.

The country has funds to finance environmental business and investment. These funds provide direct support to 250 rural grassroots organizations, through the program of community environmental business and investment, benefiting about 12,600 people directly and 71,000 indirectly. Environmental business and investment are therefore an important means of supporting the economic development of rural communities, as well as a tool for achieving the goals of sustainable use and conservation of natural resources, and particularly natural forests, through the communities themselves.

This program develops social capital through the creation of cooperatives and small community businesses allowing the incorporation into economic activity of vulnerable groups living in poverty or in extreme poverty in various regions of the country. This includes, for example, the projects for watershed restoration, for the Mesoamerican Biological Corridor of the Panamanian Atlantic and for Conservation of the Lake Alajuela basin. In addition, the Cleaner Production Program incorporates sustainable forest management in the management of medium-size and large agricultural holdings.

Forest Policy

ANAM, promulgated Executive Decree No. N° 2 of January 2, 2003, establishing the basic principles and guidelines of Panama's forest policy, the strategic guidelines, the scope of the forest policy, the strategic objectives, and the strategic actions of Panama's forest policy.

The principles and guidelines of the forest policy are covered in the National Environment Strategy and are an integral part of policies for the economic and social development of the country. This includes several aspects, the most outstanding of which are the following: it is the duty of the State to provide a healthy and suitable environment for life and sustainable development, exploit and manage in a sustainable manner the forest heritage of the State, develop the national plan for forest plantations, promote and support forest protection, among others.

Aspects for promoting the contribution of forestry resources in the national sustainable development model; social and market valuation of the goods and services generated; fostering the sustainability of forest resources exploitation; promotion of shared participation and responsibility; and institutional strengthening are included under the strategic guidelines.

Forest policy is divided into the intersectoral, sectoral, and subsectoral aspects, in which the forest theme transcends the traditional limits of the forestry subsector to become a part of the decision-making process, the harmonization of forest activity with the set of policies and strategies designed to manage different institutions in the primary user of natural resources sector and seeks to strengthen forest management from the point of view of both ANAM and civil society.

The strategic objectives aim to: promote and facilitate the inclusion of civil society, promote a flexible and indicative land use planning, promote the adoption of forest land use planning for the country, and create centers and subcenters for training and forest management training.

The strategic actions include the following: support the National Environment Council in order to incorporate the Forest Policy in the National Economic Development Model; formulate and establish a national reforestation plan that guides and defines, according to the specific objectives, areas, species and the market; establish an effective system of technical assistance in all spheres of forest activity; establish a forest certification system that facilitates the marketing process, among others.

Political Constitution

The Political Constitution of the Republic of Panama lays down the Ecological Regime in Title III, Chapter 7, which establishes four fundamental principles which must be interpreted in harmony with each other: the principle of environmental health, the principle of sustainable development, the principle of the rational use of renewable resources, and that corresponding to non-renewable natural resources.

The first states that it is the fundamental duty of the State to ensure that the population lives in a healthy environment free from pollution, in which the air, water and food meets the requirements for the proper development of human life.

The second principle points out that the State, just like all inhabitants of the country have a duty to facilitate social and economic development and avoid polluting the environment, should maintain the ecological balance, and prevent the destruction of ecosystems.

The third principle provides that the State shall regulate, have oversight of, and enforce in a timely manner, the measures necessary to ensure that the use and exploitation of terrestrial, riverine, and marine fauna, as well as forests, land and water is carried out efficiently, in such a way as to avoid plundering and ensure their preservation, renewal, and continued existence. Finally, the fourth principle has the same provision with respect to non-renewable resources.

The Ecological Regime of the Political Constitution does deal exhaustively with important environmental provisions; there are provisions elsewhere on the topic under discussion.

In this regard, Title III, Chapter 8, the Agrarian Regime, provides that the State will pay special attention to the comprehensive development of the agriculture and livestock sector, promote optimum land utilization, ensure it is sensibly distributed, and properly exploited and conserved, so that it is productively maintained and will guarantee every farmer's right to a decent life. Article 259 provides that grants of forest and land concessions are based on the welfare of the community and done in the public interest.

This very important legal instrument also provides that the State will pay special attention to rural and indigenous communities in order to encourage their economic, social and political participation in national life; and that the State will ensure that indigenous communities are provided with the necessary land under collective ownership so that they can achieve economic and social wellbeing. Article 90 of the Constitution acknowledges the ethnic identity of indigenous communities and will implement programs for the development of their physical, social, and spiritual development.

In addition to the above, Article 5 of the Constitution has similar provisions, which allows for the division of the country into provinces and other legal divisions such as the indigenous comarcas.

Legal Framework

The National Environment Authority (ANAM) was established by Law No. 41 of 1998, as an autonomous governing State entity in matters of natural resources and the environment, to ensure compliance with and enforcement of the laws, regulations, and national environment policy. It provides that the national environment policy is the array of measures, strategies and actions employed by the State that direct, prescribe, and determine the behavior of the public and private sector, the decision-makers in the economy, and the population in general in the conservation, use, and exploitation of the natural resources and the environment. Despite being an autonomous entity, in the scope of its functions ANAM is represented on the Executive Board through the Minister of Economy and Finance (MEF).

Article 4 of this law establishes the principles and guidelines of the national environment policy, including “stimulating and promoting environmentally sustainable behavior, the use of clean technologies, the establishment of a market for recycled and reused goods as a way to reduce levels of waste accumulation and environmental pollution”.

The National Environment Authority has institutional permanence, territorial coverage, and a budget to carry out the duties entrusted to it. Among its many functions ANAM has to promote and facilitate the execution of environmental projects through public and private sector agencies.

Law 41 of 1998 provides that public sector institutions with environmental jurisdiction shall form part of the Inter-institutional Environmental System [*Sistema Interinstitucional del Ambiente SIA*] and shall establish coordination, consultation, and execution mechanisms among themselves, following the parameters of the National Environment Authority, provided ANAM is in charge of the System, in order to harmonize their policies, prevent conflicts or lack of skills, and respond coherently and efficiently to the aims and objectives of abovementioned Law 41 and the national environment policy guidelines.

Title VII of the Law sets out the relationship between the national authorities and the comarcas and indigenous people. Panama is currently divided into nine provinces and five indigenous comarcas: Ngöbe-Buglé, Emberá-Wounann, Kuna Yala, Madugandí and Wargandí, the lands comprising its comarcas, are collectively owned.

Title VII of Law 41 of 1998 lays down the constitutional principle that the State will respect; preserve, and maintain the knowledge, innovations, and practices of local indigenous communities and their traditional lifestyles with respect to conservation and the sustainable use of biological diversity, by fostering their widest application with the participation of those communities, and by advocating that the profits derived therefrom be shared with them equitably.

Likewise, Law 41 of 1998 states that studies on the exploration, exploitation, and development of the natural resources that are authorized on the lands occupied by comarcas or indigenous communities should not result in a deterioration in their cultural, social, economic integrity and spiritual values; that in the case of activities, works, or projects carried out in the territory of the indigenous communities, consultation proceedings shall be aimed at concluding agreements with the representatives of the communities in relation to their rights and customs, as well as providing compensatory benefits for the use of their resources, knowledge, or land; that to grant any type of authorization with regard to the exploitation of the natural resources in the comarcas or the lands of indigenous communities preference shall be given to projects submitted by their members provided that they comply with the requirements and procedures demanded by the competent authorities.

In addition to the above, Law 41, provides that in the case of activities aimed at developing the natural resources in lands of the comarcas or indigenous people, the latter shall have the right to share in the profits deriving therefrom, when said profits are not provided for in current laws. This is consistent with the principles arising from the Biological Diversity Convention of 1992, incorporated into Panama's Law No. 2 of 1995.

Chapter V of Title VI of Law 41 of July 1, 1998, General Environment of the Republic of Panama, regulates Air Quality, and provides that the air is a public good, whose conservation and use are of social interest.

ANAM, and the competent entities are charged with setting standards for everything relating to air quality, by establishing controlled follow-up programs, the permissible levels and parameters in order to protect health, the natural resources, and environmental quality; the State recognizes that carbon capture is an environmental service of the forests, and it will establish the mechanisms to marshal the financial and economic resources through agreed-upon joint international implementation programs.

Law 1 of February 3, 1994, "Establishing Forest Legislation in the Republic of Panama and laying down other provisions" sets out in Title I, Chapter II the forest heritage of the State. Article 10 specifies that the forest heritage of the State consists of all the natural forest⁴ the land on which such forests are growing and the State lands with mainly forest potential. Forest plantations established by the State on State-owned land are also part of this heritage.

Article 13 of the aforementioned law indicates that administration of the forests and land constituting the forest heritage of the State is the responsibility of ANAM, which by dint of that provision and its Executive Board Resolution 05-98 of January 22, 1998 (regulating enforcement of Law No. 1 of February 3, 1994) establishes management and development rules governing the forest heritage of the State.

Executive Board Resolution JD-05-98 of January 22, 1998, pursuant to that law, specifically authorizes ANAM to adopt measures that foster and promote the establishment of plantations and natural forest management, designed to capture and fix CO₂ and contribute positively to the global and national balance of green house gas emissions.

Panama, by Law 10 of April 12, 1995, adopts all parts of the United Nations Framework Convention on Climate Change, done in New York of May 9, 1992. Subsequently, by Law 88 of November 30, 1998, it adopted all parts of the Kyoto Protocol of the United Nations Framework Convention on Climate Change, of December 11, 1997.

In compliance with the above, Resolution AG-0040-2001 of January 14, 2001 was issued through which the National Program on Climate Change (NPCC, was created as the entity responsible for supporting ANAM in the executing activities and commitments assumed as a result of Panama's ratification of the United Nations Framework Convention on Climate Change, and it will be headquartered in the Water Center for the Humid Tropics of Latin **America** and the Caribbean [*Centro del Agua para el Trópico Húmedo para América Latina y El Caribe* (CATHALAC). Under this program four subprograms were created with the objective of covering the principal activities generated at the international level for national application. The subprograms are: compliance, vulnerability and adaptation, mitigation, and public awareness.

The functions of the National Program on Climate Change include: to promote, on a national scale, the development of vulnerability studies, policy measures, and projects for adaptation to climate change in the different natural ecosystems and socio-economic sectors; to manage the necessary resources with the corresponding agencies; and to use mechanisms linked to the

⁴ Natural Forest: Any ligneous vegetable formation, native, predominantly of arboreal species, or that by its function or composition, must be considered as such. Article 5 of the Law N° 1 of February 3 1994, Forestry Law.

abovementioned Convention for the creation and/or strengthening of national capacity in the area of climate change and the heightening public consciousness and awareness.

Executive Decree 35 of February 26, 2007, adopted the National Climate Change Policy, its principles, objectives, and guidelines. For purposes of implementation, this policy was inspired by the principles emanating from the CMNUCC, the Kyoto Protocol, Law 41 of 1998, and Panama's General Environment Law. Among the principles are a recognition of the commitment to implement measures for adaptation to, and mitigation of, the adverse effects of climate change, taking into account particularly the areas of poverty so that economic, social, and environmental development will not be compromised; and the acknowledgement that the policy and topics related to climate change at the national level will be coordinated through ANAM as the designated National Authority and Focal Point in dealings with UNFCCC.

Among the specific objectives and policies contained in Executive Decree 35 of 2007, are the following:

1. Formulate, agree on and implement a participatory action plan that covers all the initiatives of the public sector, civil society and academic institutions aimed at enforcing all the commitments undertaken by the country to the UNFCCC.
2. Exercise the right granted by the UNFCCC to obtain financial resources and technical cooperation from developed countries that would make it possible for us to confront climate change by employing adaptation measures.
3. Promote the development of support programs to the poorest vulnerable communities, so that they can adapt to the effects of climate change.
4. Develop the national strategy for the promotion and implementation of projects under the Clean Development Mechanism, as an instrument that will contribute to the sustainable development of the country.
5. Promote and manage financial resources internationally through field organizations in industrialized countries that commit to reduce emissions, in order to establish of projects under the Clean Development Mechanism.

The Executive Decree 1 of January 9, 2009 created the Panama National Climate Change Committee [*Comité Nacional de Cambio Climático en Panamá CONACCP*](**Annex 4**) to support ANAM in the implementation and monitoring of the National Climate Change Committee. According to the aforementioned Decree, the National Climate Change Committee (CONACCP), must ensure the implementation of the inter-institutional coordination system necessary for compliance with the provisions of the international agreements on the topic of climate change of which Panama is a signatory, especially in the context of the two major action pillars: adaptation and mitigation.

The CEO of the CONACCP is permanently employed by it or the legal representative of the National Environment Authority. For all the above reasons, the REDD Panama strategy is a mitigation project that supports the adaptation of humans to climate change based on a legal framework which we believe should not be modified and that on the contrary it should be enforced so that lessons can be learned in accordance with the results that are being obtained over time, results that have been positive for Panama up to now.

Land Use, Forest Policy, and Governance Quick Assessment

The analysis of change in forest cover between 1992 and 2000 shows a decline of 330,369 hectares, equivalent to an annual average loss of 1.12%. It also points to three critical areas (See Annex 2 – Map of Changes in Forest Cover in the Republic of Panama, 1992-2000):

- The indigenous comarca of Ngöbe-Buglé, located in north-east Panama, with a deforestation area of 81,793 ha, or 2.7%;

- The province of Darién, in the east of the country, with an annual deforestation rate of 1.7% (137,612 ha); and
- The eastern part of Panama Province, which has an annual deforestation rate of 1.5% (60, 709 ha).

The study also shows changes in vegetation coverage by type of forest, notably the following:

Category	1992 (Ha)	2000 (Ha)
Mature forest	3,352,072	3,015,002
Mangrove	181,775	174,435
Mixed floodable forest	45,554	37,398

The most serious environmental problem we face is the loss of natural resources, as a result of unsustainable development, based on waste. It is deforestation (at a rate of approximately 48,000 ha per year) that illustrates this most clearly. The problem worsens in the dry season, when slashing, burning and forest fires destroy vegetation and biological diversity, be it in forests, stubble fields, grazing land, or anywhere else, even close to our homes, driven by the society's own irresponsibility and its development style.

Studies carried out by ANAM point to six major causes of deforestation:

1. Traditional and mechanized agricultural practices;
2. Extensive cattle-breeding practices;
3. Unsustainable and disorderly exploitation of forests;
4. Poorly planned urban development;
5. Inappropriate practices in the exploitation of mining resources; and
6. A low level of education and an unsustainable environmental culture in the country.

Contributing factors in deforestation are said to be; an uncontrolled approach to development; extreme poverty, a paddock mentality, and incorrect valuation of forest resources irrespective of the Agrarian Code.

As for the legal provisions specifically addressing this issue, Law 1 of February 3, 1994⁵, "Establishing forestry legislation in the Republic of Panama and enacting other provisions", establishes in Title I, Chapter II, the Forest Heritage of the State.

Article 10, specifies that the forest heritage of the state consists of all the natural forests⁶, the land on which such forests are growing and the State lands with mainly forest potential. Forest plantations established by the State on State-owned land are also part of this heritage.

Article 13 of the aforementioned law indicates that administration of the forests and land constituting the forest heritage of the State is the responsibility of ANAM, which by dint of that provision and its Executive Board Resolution 05-98 of January 22, 1998 establishes management and development rules governing the forest heritage of the State.

⁵ Article 129 of Law N° 41 of 1998, General de Ambiente, declares Law N° 1 of 1994 "by which the forestry legislation of the Republic is established" as "complementary" to it, by which both are considered as part of the same code with a general environment hierarchy before a specific one in the forestry aspect.

⁶ Natural Forest: Any ligneous vegetable formation, native, predominantly of arboreal species, or that by its function or composition, must be considered as such. Article 5 of the Law N° 1 of February 3 1994, Forestry Law (in Spanish original: Bosque Natural: toda formación vegetal leñosa, nativa, con predominio de especies arbóreas, o que por su función y composición, deba considerarse como tal. Artículo 5 de la Ley 1 de 3 de febrero de 1994, Ley Forestal).

Article 15 of Resolution JD-05-98, expanding on the Forest Law, specifically authorizes ANAM to adopt measures designed to capture CO₂:

“INRENARE may establish mechanisms to stimulate and promote the creation of plantations and the management of the natural forest, so as to capture and fix carbon dioxide and make a positive contribution to the national and global balance of greenhouse gas emissions. To that end, it shall establish a promotion, monitoring and control office.”

Even in natural forests on estates governed by private property law, ANAM has a role to play by virtue of the provisions of the Sustainable Use of Forests Regime, Title II of this regulatory resolution.

Indigenous peoples

The General Environment Law establishes - in title VII on the indigenous lands and peoples – the relations between the national authorities and the indigenous lands and peoples. Panama is currently divided into nine provinces and five (5) indigenous lands: Ngöbe-Buglé, Emberá-Wounann, Kuna Yala, Madugandí and Wargandí. The lands comprising their lands are owned collectively under a constitutional mandate.

That law develops the constitutional principle that the State will respect, preserve and maintain the knowledge, innovations and practices of the indigenous and local communities which involve traditional ways of life related to the conservation and sustainable use of biological diversity, promoting their widest application, with the participation of the communities, and will promote equitable sharing with them of the resulting benefits.

The same law also indicates: that any natural resource exploration, exploitation and development studies authorized on land occupied by lands or indigenous peoples should not cause harm to their cultural, social and economic integrity or spiritual values.

Thus, for activities, works or projects carried out within the territory of indigenous communities, consultations will focus on concluding agreements with community representatives relating to their rights and customs, as well as on the granting of benefits to compensate for the use of their resources, knowledge or land; that when granting any type of authorization relating to the development of natural resources, in the comarcas or on lands of indigenous communities, preference will be given to projects submitted by their members, provided that they comply with the requirements and procedures laid down by the competent authorities.

Article 103 of Law 41 of 1998 states that for activities, works or projects carried out within the territory of indigenous communities, consultations will focus on concluding agreements with community representatives relating to their rights and customs, as well as on the granting of benefits to compensate for the use of their resources, knowledge or land.

Article 105, for its part, establishes that, in the case of activities involving the development of natural resources on land of comarcas or indigenous peoples, they are entitled to a share in any resulting economic benefits, if such benefits are not covered by existing laws.

A Role for Ethnic Minorities in REDD

The General Environment Law establishes - in title VII on the indigenous lands and peoples – the relations between the national authorities and the indigenous comarcas and peoples. Panama is currently divided into nine provinces and five (5) indigenous comarcas: Ngöbe-Buglé, Emberá-Wounann, Kuna Yala, Madugandí and Wargandí. The lands comprising their comarcas are owned collectively under a constitutional mandate.

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diversity, promoting their widest application, with the participation of the communities, and will promote equitable sharing with them of the resulting benefits.

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Article 105, for its part, establishes that, in the case of activities involving the development of natural resources on land of comarcas or indigenous peoples, they are entitled to a share in any resulting economic benefits, if such benefits are not covered by existing laws.

The policies, programs and activities corresponding to this strategy must emphasize the incorporation of indigenous and marginal communities that live in the ecosystems of interest into the conservation and supply of environmental services. This participation requires resources to promote productive activities in line with the dual goals of environmental preservation and human and economic development, including the incorporation of these populations into the local and national economy, achieving efficient and sustained management of the natural resources, and bringing about changes in technology and production methods used in both small and large enterprises.

ANAM, following the guidelines of the Millenium Goals and considering the international commitments made during the Conferences of the participants in the United Nations Framework Convention on Climatic Change, has started a direct dialogue with indigenous populations and marginalized groups in the country to inform the different rural communities on the problems and opportunities associated with the adaptation and mitigation tasks of the climatic change. During 2008 nine Forums on Climatic Change and Desertification were carried out countrywide, in all the REDD issue was presented: Chiriquí (2), Los Santos (1), Veraguas (2), Herrera (1), Coclé (1), Bocas del Toro (1) and Darién (1).

With respect to indigenous peoples, eight informative sessions were carried out with the traditional authorities in three of the five indigenous territories of the Republic of Panama. The first discussion was took place on the day of elections for the Congress of the Emberá Wounaan Territory. Cacique Betanio Chiquidama, a recently elected official, granted permission to talk to ANAM to explain the general principles and the status of the negotiation on REDD, and the parties agreed to convene a follow-up meeting. In the second instance, the authorities delivered ANAM a REDD insignia made by Brinkman y Asociados Reforestadores de Centroamérica, S.A. (Central American reforestation company). The steps to follow with this indigenous community will be defined in workshops with representatives of each of the 40 settlements within the territory.

In the Kuna Yala Territory, the General Cacique requested ANAM support to participate in the 14th Conference of the Parties (COP 14) at Poznan, Poland and a meeting in the Territory to explain to the Congress and its technical advisors the progress in the negotiation before departure for the Conference. That meeting reached several important agreements on supervision and control and the joint management of the Protected Area of the Territory. The

activities of formal consultation with all the Indigenous Territories are described in the component of environmental culture of this report.

Pending task: the process of completing the NJP document, which will take place between now and November 2009, will be carried out through outcome 1 of this document which deals with a participatory consultation process, placing particular attention in ensuring that the view of ethnic minorities and disadvantaged groups are factored into program design. One of the results of this process will be an agreement on the role of these groups in the implementation of REDD policies under The National Environmental Strategy.

4. Strategies including lessons learned and the proposed Joint Programme

Panama´s REDD strategy has several objectives:

Development Objective

Incentives for increasing assistance and revenue for rural communities through environmental businesses thus promoting adaptation to change, forest and biodiversity conservation, which contribute to mitigation efforts.

National Environment Objective

To establish a link between adaptation and mitigation activities that help to improve the quality of the environment, to prevent deforestation (REDD) and to promote true sustainable development. In other words shared environmental management based on watershed management to restore forest cover and reduce the deforestation rate in strategic alliance with communities.

Global environment objective

Conservation of internationally important biological diversity, protection of mountain and coastal forest ecosystems (REDD) and mitigation of climate change.

Specific objectives

- Capacity-building for implementation of specific activities under the REDD strategy.
- Development of a system of intensive monitoring of forest cover allowing calculation of carbon stock and the degree of modification of the country's forests.
- A process of supervision, control and oversight to guarantee implementation of the REDD strategy.
- Creation of a training program for participation in environmental management and green business to promote the REDD strategy.
- Design of a financing mechanism to promote fair, equitable and transparent distribution of revenue generated by the provision of environmental goods and services, with direct benefits for communities.
- Proposal of adaptation measures to guarantee the availability of natural resources for future generations, through production of environmental goods and services that promote positive changes in soil [Patricia: land] use.

Although the REDD is a mitigation strategy, it will help support the processes by which human beings adapt to climate change. To that end, the strategy will foster an environmental culture of sustainability based on consumption and production patterns that encourage both the "unlearning" of bad practices and the "re-learning" of those that will enable us to tackle the effects of climate change. That culture will, moreover, enable us to recover the best and most appropriate insights afforded by traditional and modern knowledge, through training, technical advice, and the use and innovation of environment-friendly technology.

The REDD strategy will be implemented through environmental management geared to economic growth with livelihood benefits, social participation and the conservation of our natural resources, so as to support the establishment of a low-carbon economy and contribute to global mitigation of greenhouse gases, as well as the implementation, at the local level, of measures for adapting to climate change. In this way, the REDD strategy will coordinate core

elements of environmental management in Panama, developing natural capital through the development of social capital.

For that purpose, REDD provides an innovative financing mechanism, which will enable the country to have the resources it needs for social investment that is not taxation-based but, rather, achieved through the social participation mechanisms needed for the transfer and effective distribution of resources and relevant information to the community organizations and enterprises directly responsible for maintaining environmental conditions. Thus, Panama has chosen to create collective benefit distribution mechanisms reaching broad segments of society.

The minority sectors that already have land and financial means are also brought into the process through the provision of training in how to adopt sustainable production methods that will bring them added benefits through sustainable management of their land and how to adapt to climate change. This will facilitate greater participation in the collective establishment of forest reserves, greater capacity to retain CO₂, and the development of an environmental culture that encourages both sustainability and the country's regional competitiveness.

ANAM has attached a high degree of priority to the establishment of protected areas as a conservation initiative for sustainable development. In addition, there are a number of programs and projects to strengthen SINAP, such as the consolidation of the Mesoamerican Biological Corridor on Panama's Atlantic coast, aimed at taking pressure off the priority protected areas and their buffer zones through actions to develop local capacities and local participation in the management of those areas. The National Land Titling Program is also a key factor in efforts to strengthen SINAP, because it allows for legalization of land in protected areas in order to guarantee exploitation of their productive potential, thereby boosting the REDD strategy and its buffer zones, which contain the bulk of the country's vegetation cover.

Zones that require urgent restoration and are most vulnerable to degradation, while still possessing a wealth of natural potential threatened by inappropriate practices, constitute a major problem for sustainable development. These zones should be at the center of the policies and actions outlined in the National Environment Strategy, based on Environmental Land Management according to watersheds, which makes it possible to identify the potential, limitations, and problems associated with the terrain and, with them in mind, to arrange for appropriate use of physical spaces and prevent and mitigate disasters.

The REDD Strategy complies with the objectives of the three Rio Conventions: Conservation of Biodiversity, Climate Change, and Actions to Combat Desertification and Drought. Achieving those objectives requires actions geared to conservation of biodiversity through interconnection of biological corridors as well as the implementation of sustainable land management practices designed to stop soil degradation and mitigate climate change.

As regards the Biological Diversity Convention of 1992, the REDD strategy would ensure connection between the biological corridors being worked on nationwide by producing environmental goods and services in ways that at the same time make it possible to attend to the zones hardest hit by soil degradation. This can best be visualized by looking at the map showing the Atlantic Mesoamerican Biological Corridor areas, the zones being worked on the Pacific side, and the degraded areas that the REDD strategy could recover as a connecting bridge.

The National Plan of Action to Combat Drought and Desertification envisages actions and objectives that coincide with the REDD strategy with respect to stemming environmental degradation in order to preserve the current healthy forest cover. That plan has so far been executed using national funds, by executing the Ecosystems Recovery Project in the most degraded areas of the country, which requires the application of best sustainable land management practices in pilot agroforestry plots; the restoration of gallery forests; and sustainable practices for cultivating timber- and fruit-yielding forest species. The plots were established in farms owned by low-income farmers, who were given a variety of options for raising their income by recovering and conserving their natural resources.

The United Nations Framework Convention on Climate Change set important targets for mitigation and adaptation. In connection with them, Panama is currently preparing its Second National Communication, which includes an update of the National Inventory of Greenhouse Gases (INGEI). The first version of that Inventory revealed that 60% of Panama's greenhouse gas emissions occur in the Change of Soil Use and Forestry sector, within which the forestry sector is analyzed according to soil use. Preliminary INGEI-II figures for 2005 show an increase in emissions in this sector, which is still the largest source of them. The REDD strategy will make it possible to counter this trend by applying the working programs of the integrated water basin management model in order to comply with environmental regulations.

So far, the methodology used to compile the INGEI is that outlined in the 2003 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories, which provides guidelines for identifying types of land use to detect changes over time by category of land (agricultural, wetlands, forest, pastureland, settlements, and other lands) and subcategories. However, the information generated for identifying land use does not include periodical updates nor does it provide the carbon stock calculations that help measure national emissions,

The activities of the CMNUCC include analysis of sectors vulnerable to global warming with a view to designing adaptation measures to be included in a National Climate Change Strategy. That Strategy aims to direct the country's development toward a low-carbon economy by promoting adaptation measures in key sectors for sustainable development, in such a way as to have REDD actions regarded as useful for both mitigation and adaptation.

With respect to the Millennium Development Goals, Panama has been working on a reduction in the levels of both poverty and extreme poverty. To achieve that, it has carried out activities in a number of critical areas, which have reduced poverty by 8%. The REDD strategy would contribute to this goal, even though poverty is not in itself the main reason for the degradation of national soils. In effect, the coordination arrangements of the REDD entail the equitable distribution of funds to address the issue of reducing deforestation nationwide through implementation of environmental businesses and investments, including businesses and investments by rural communities demonstrating that they have the capacity to conduct them. The same is true of the Promote Panama Program (*Programa Impulsa Panamá*), which provides funding for the development of community businesses, as do other programs in which ANAM participates, such as PRODEC, the Critical Basins Management Program, the Darién Fund, the Chagres Fund, the Ecological Trust Fund of Panama (FIDECO) and the Small Grants Program.

Experience has shown that promoting environmental businesses and investments at the community level can lead to the establishment and consolidation of financially viable environmental enterprises in rural areas, if they make sustainable use of natural resources and pursue conservation activities. Thus, environmental businesses and investments constitute an alternative to conventional slash and burn practices, while enabling forest ecosystems to maintain the supply of environmental goods and services needed for the well-being of the communities. This approach thus reinforces the thrust of Panama's Integrated Water Basin Management Model by helping to achieve the goal of reducing the rate of deforestation and designing and implementing a system for monitoring, overseeing, controlling and verifying flora and fauna.

Description of the REDD Strategy

ANAM has developed an environmental management model based on the Integrated Management of Water Basins (GICH), with two clear aims: to consolidate the arrangements for conservation on the Caribbean side and to curb environmental degradation on the Pacific side. Within that framework, the principal challenges for national environmental policy and strategy are addressed from a planning, management, monitoring and evaluation perspective, in which the basic unit of analysis – both inside and outside the protected areas --is the watershed. This model is based on coordination of environmental, institutional, economic and social factors

through the implementation of 24 programs working in concert to improve the country's environmental conditions. These programs are:

1. Environmental Businesses and Community Investment	9. Decentralization and Deconcentration of Environmental Management	17. Land Management
2. Environmental Monitoring	10. International Management	18. Administration and Finance
3. Supervision, Control and Verification	11. Institution-Building	19. Construction and Maintenance
4. Environmental Culture and Citizen Participation	12. Science and Technology	20. Environmental Information
5. Cleaner Production	13. Outreach – (<i>Comunicación Social.</i>)	21. Environmental Risk Management
6. Biological Corridors / Forest Connectivity	14. Environmental Justice	22. Environmental Quality
7. Restoration of Ecosystems	15. Human Resource Development	23. Public Use of Areas
8. Environmental Planning	16. Land Management	24. Climate Change and Desertification

The operational strategies from which these programs derive are the REDD strategy, the Forest Connectivity and Biological Corridors Strategy, the Climate Change Strategy, the National Plan of Forest Development, the Comprehensive Management of Water Resources Plan, the Strategic SINAP Plan, the Restoration of Degraded Lands Strategy and the Production of Environmental Goods and Services Strategy.

The GICH model proposes integral solutions for the principal environmental problems and risks affecting watersheds (See Annexes). Actions in that model will focus on the following priorities:

- Participatory diagnostic assessment of principal watershed-related problems and solutions, aimed at achieving consensus-based environmental land management;
- Organization and training of selected community groups;
- Strengthening of the social fabric in watersheds in order to implement new forms of production and consumption;
- Prevention and mitigation of environmental risks;
- Restoration and conservation of watersheds;
- Prevention and mitigation of environmental pollution;
- Reduction of soil degradation and protection of forest cover;
- Development of environment-friendly production systems; and
- Fostering of a local economy through community-based environmental investments and businesses.

The GICH model includes a monitoring and evaluation program for measuring the impacts and outcomes of environmental interventions by means of a comprehensive control panel systematizing the information on 115 performance indicators, which may be interrelated to the country's environmental statistics and indicators. The system can also map out and transmit the results by subject matter, via the ANAM website. Users can generate their own analyses using the country's interactive maps production tool. The model also generates its own feedback each year from updates of the analyses of each of the country's 52 watersheds conducted in Panama's 13 administrative regions. The new model is available at the start of each year in order to evaluate the previous year's work programs.

The success of the REDD strategy will, to a large extent, depend on the gradual transformation of the environmental culture of the Panamanian population, a process that has been under way for at least 15 years. That process, in turn, hinges on the ability of the State to foster responsible, shared environmental stewardship among all stakeholders. Key players in that endeavor will be the Inter-Agency Environmental System, local governments, private enterprise, project promoters, environmental NGOs, academic and scientific circles, and, above all, the grassroots of the social fabric being forged in Panama in the form of community-based organization aimed at achieving access to environmental business or investment development opportunities in the form of small and micro enterprises or cooperatives.

The basis for a genuine transformation of the environmental culture lies, indeed, in the possibility of learning from sustainable use of resources and ecosystems.

Environmental Investments

The term "natural" or "environmental service" refers to each of the benefits that nature provides for humanity, or a local population, from an economic point of view. It was coined by Robert Costanza and his colleagues in scientific works aiming to appraise nature in a language compatible with standard economics, which shuns the word "value" unless the reference is strictly monetary or transaction-related.

Environmental services are directly dependent upon "healthy" ecosystems and the biodiversity they harbor. When ecosystems are degraded, so too are the services they provide. Nevertheless, while the income from actions that are harmful to nature are recorded in accounts, the indirect costs associated with them are systematically ignored.

The problem stems from the decision taken by academic economists to preclude any concept of value that does not derive from the preferences of economic agents, as manifested in market transactions. While costs and benefits may be more or less clear, despite the asymmetry in the information, for those who voluntarily perform a transaction the indirect costs to others, that is to say, the externalities, are systematically, and more or less deliberately, ignored.

Economic growth supported by uncontrolled productive processes contributes to progressive environmental degradation, so much so that nowadays it is commonplace to interpret environmental pollution and over-exploitation of natural resources, at least partially, as signs of unsustainable and inefficient economies that tend to diminish citizens' quality of life, instead of enhancing it. Panama recognizes that the signals sent by the recent growth of our economy indicate that we must act immediately to guarantee sustainable generation of the inputs required to meet growing demand and support the productivity of rural communities, especially those living in and dependent upon forests.

Conventional wisdom maintains that there are two financial mechanisms for influencing the behavior of persons in such a way as to avoid deforestation:

- Increasing the value of existing forests by providing periodic financial support, for a limited time, in order to maintain forest carbon reserves; and

- Making deforestation less profitable by increasing the costs associated with it through taxes on change of land use and the marketing of timber.⁹⁸

Panama's proposal is based on the premise that, for a lasting impact on deforestation, we need to invest in our principal allies in forest management: rural communities, indigenous populations, and other residents of the forests. In its strategic guidelines for 2004-2008, ANAM proposes establishing capacity for introducing new economic tools for environmental management, such as economic valuation of environmental goods, services and impacts; arrangements for paying for environmental services; pollution command and control instruments; clean development mechanisms; cleaner production; as well as the strategy for developing small and medium-sized enterprises in protected areas to identify environmental services that could be converted into micro-enterprises and cooperatives managed by vulnerable groups (small farmers and indigenous communities) living in protected areas and their buffer zones.

Payment for Environmental Services (PES) is a mechanism for economic compensation by which the beneficiaries or users of the service make a payment to the providers or custodians of the service. The environmental services involved may be very specific such as a constant flow of clean water or a predictable supply of firewood. In other cases the environmental services may be something more abstract or may have a global reach: carbon capture or scenic beauty, for example. The environmental services sector at the global level includes, among others, land and water management, protection of biodiversity, reduction and prevention of impacts on ecosystems, and management of climate change.

Compensation schemes to support PES programs may vary depending on the ecological, social, and political environment of the country or region where they will be implemented. Three major types of mechanisms may be distinguished in descending order of government participation:

- a) Public payment schemes;
- b) Freelance agreements with a regulatory ceiling or floor; and
- c) Independent private agreements.

On the other hand, the development of activities for Production of Environmental Goods and Services (EGS) seeks to reduce threats and polluting content in a specific area and, at the same time develop the local capacities of community groups to improve the natural conditions and have access to economic improvements in the development of environmentally sustainable business undertakings.

- Ecosystem Restoration Program. This is designed for degraded areas, especially those that are important for watersheds, and to bring sustainable solutions to poor and extremely poor rural communities living in such areas. This is one of the complementary programs we use as a basis for our community-level environmental investments program.
- Forest Management Program. This involves various supporting mechanisms for the forest sector, with a particular focus on developing public and private forest management capabilities for productive and commercial purposes. Under this program, forest industry is supported by Law 24 of November 23, 1992: Law on Reforestation Incentives.
- Training, Research and Dissemination Program. This is a complementary program aimed at (local and institutional) capacity building and the dissemination of knowledge regarding sustainable forest development.

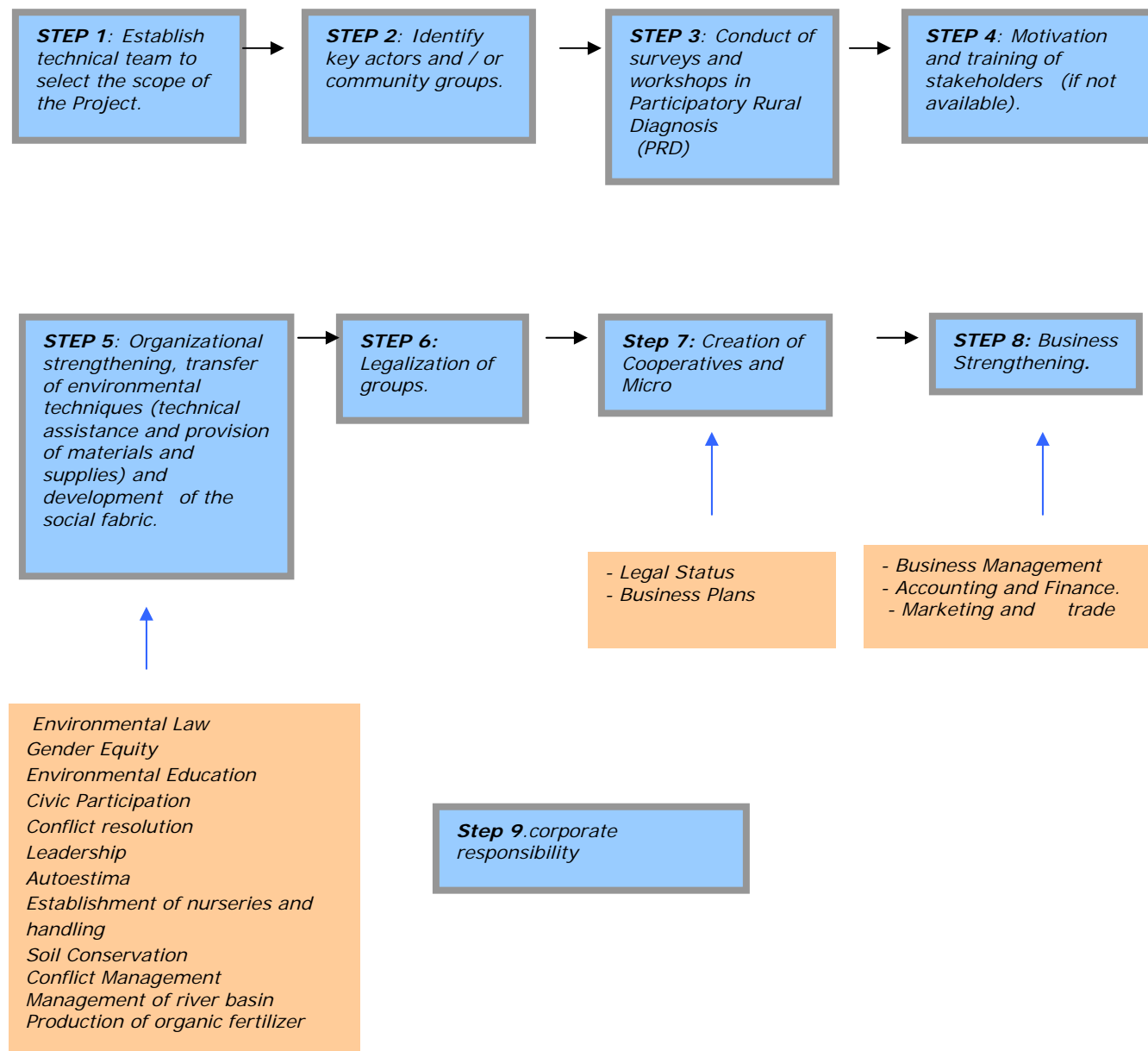
The purpose of promoting environmental investments is to offer resources to local populations so that they can play an active part in environmental stewardship, by producing environmental goods and services that simultaneously improve people's living conditions and environmental conditions in their geographical area. This encourages the formation of social capital for the

⁹⁸ Rametsteiner, Obersteiner, Kindermann & Sohngen; Economics of Avoiding Deforestation.

development of natural capital. It does so by: stimulating individual willingness to participate; coordinating groups or associations working in environmental activities generating livelihood benefits; and facilitating initiatives that bring about more extensive economic change in relation to a cooperative or micro-enterprise.

Based on the experience we have acquired, following are some basic steps for establishing and strengthening environmental enterprises:

Figure 1: Logical Process for Establishing Environmental Businesses



Developing these economic environmental management tools helps build the capacity of community groups and other similar associations to make sustainable use of nature and convert it into natural capital. Building these capacities has three major dimensions – environmental, economic and social – and it focuses on incorporating new techniques and working methods, while respecting their inclusion in existing traditional and cultural productive systems.

In Panamá there are approximately seven environmental investment programs/funds engaged in working with communities in the manner outlined above. To date, using the environmental agenda, they have managed to offer economic resources, technical assistance, training and inputs to develop an annual investment portfolio of at least US\$3 million. Different organizations provide the funds for these initiatives. Some funds come from bilateral agreements with the United States government, such as the Ecological Trust Fund and the Debt-for-Nature Swaps for the Chagres and Darién parks. Others (such as those of the Small Grants Program and the Environmental Investments Fund of the Atlantic Mesoamerican Biological Corridor (CBMAP) Project) come from international organizations, in these two cases from the GEF. Governments are another source of financing, as in the case of the ten Watershed Restoration projects. Funds are also provided by international entities, such as the Andean Development Corporation, to restore and generate biomass in critical basins.

Disponibilidad de Fondos para Inversiones Ambientales 2004-2013

<i>Fuente de Financiamiento</i>	<i>Período</i>	<i>Total</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>
Fondo de Inversiones Ambientales (CBMAP2)	6 años	8,300,000				1,000,000	1,200,000	2,100,000	2,000,000	2,000,000	-	
ACP - gobierno de USA (cuena del canal)	3 años	1,200,000				400,000	400,000	400,000				
Fideicomiso Ecológico (FIDECO)	anual	6,657,672	319,072	427,500	605,550	805,550	1,000,000	700,000	700,000	700,000	700,000	700,000
Programa de Pequeñas Donaciones PPD/GEF	anual	2,050,000				150,000	150,000	350,000	350,000	350,000	350,000	350,000
Proyecto Adaptación para la cuena de Tabasará	2 años	120,000						60,000	60,000			
Proyecto Adaptación para la cuena de Chucunaque	2 años	120,000						60,000	60,000			
Fondo Darién – Canje de Deuda	2 años	210,000			210,000							
Fondo Chagres – Canje de Deuda	2 años	182,500			182,500							
Proyectos de Gestión Integrada de Cuencas Hidrográficas	2 años	5,029,800			164,600	185,200	930,000	750,000	750,000	750,000	750,000	750,000
Fondo Finlandia/AEA	por concurso	-										
Generación de Biomasa (CAF)	6 años	10,000,000						2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Total		33,869,972	319,072	427,500	1,162,650	2,540,750	3,680,000	6,420,000	5,920,000	5,800,000	3,800,000	3,800,000

[Translation: Key to Table: Funds Available for Environmental Investments, 2004-2013

Source of Financing Period Total 2004

Environmental Investments Fund (CBMAP2)

ACP – U.S. Government (canal basin)

Ecological Trust Fund (FIDECO)

Small Grants Program (SGP/GEF)

Adaptation for the Tabasará basin project

Adaptation for the Chucunaque project

Darien Fund – Debt Swap

Chagres Fund – Debt Swap

Integrated Management of Watersheds Projects

Finland Fund/AEA (Energy and Environment]

Generation of biomass (ADC/CAF)

Total

So far, community environmental investments have generated capacity-building and access to inputs for over 10,000 people living in poverty or extreme poverty and they have led to the formation of more than 180 community groups engaged in such activities as the establishment of timber-yielding, fruit, ornamental, and medicinal plant nurseries, orchid farms and animal breeding farms, in eco-tourism services, waste management, recycling, and reutilization programs, aquaculture, apiculture, the preservation of ancestral traditions and knowledge, the conservation of sea turtles and manatees, production of organic fertilizer, and the establishment of biodigesters. Add to that their impact on the development of capabilities in the areas of deforestation and degradation, such as services for the maintenance and management of forest plantations and the sustainable exploitation of forests; agroforestry and forest pasture programs; community reforestation programs for water sources; restoration of watersheds; reforestation and recovery of gallery forests, and restoration of mangroves.

For the post-Kyoto period, it has been decided to invest the returns yielded by the strategy in the forested areas requiring most attention. That includes attending to activities designed to maintain conditions in the protected areas, which cover approximately 36 percent of the national territory and harbor a population living under the highest level of environmental protection in the country. In second place come the zones containing Panama's indigenous comarcas, which account for 22.2% of the national territory. There, more than 70% of the land is forest. Combined, these two zones cover 58% of the national territory. That might soon increase to 60% because Panama's goal is to protect 40% of the national territory.

Also worth underscoring is the fact that in this component the Terms of Reference (TORs) will be established after our country's lacunae and needs have been identified.

Synergies between community investments, agencies, and enterprises to strengthen REDD

- Regional meetings on sustainability. These encounters linking the country's water zones bring the social organizations conducting environmentally sustainable, ANAM-certified businesses or investments into contact with firms with social and/or environmental accountability, and channel funds to strengthen such micro enterprises or cooperatives. By November 2008, two meetings had taken place, with incipient but important outcomes. REDD can and must use this forum to gain a foothold and attain its goals;
- Strengthen citizen participation mechanisms with entities developing environment projects and services based on mitigation or compensation in REDD;
- Cases: AES Changuinola, ODEBRECHT, Supermercados Rey, COPA and others; and
- Sustainability Forums.

The basis for a genuine transformation of the environmental culture lies, indeed, in the possibility of learning from sustainable use of resources and ecosystems, introducing new knowledge and reinforcing environmentally sustainable know-how, while disseminating and applying technology to take pressure off ecosystems and improve living conditions without increasing dependence on the State. Many of the organizations that now call themselves micro or small enterprises began as environmental volunteers because they possessed the awareness and will to work to conserve, recover or protect their natural resources. Today they have learned that through organization they increase their capacity to generate greater economic and social wellbeing and gradually transform their lives and their environmental culture and, at the same time, conserve the ecosystems they defend.

Today it is a fact that Panama has a network of organizations benefiting from ANAM training and advice. Those organizations have attained or are in the process of obtaining the legal status they need to operate and obtain direct benefits from the recovery and restoration of their basins, reforestation of degraded areas, and the protection and development of mangrove forests using nontraditional practices, including the establishment of animal breeding farms, orchid farms, and a whole range of environmental services.

Partnerships and organizations involved:

ANAM, Local Communities, Indigenous Groups, National Universities, the Smithsonian Tropical Research Institute (STRI), Civil Society, Local Governments, the Interagency Environment System, Knowledge City [Ciudad del Saber], Nongovernmental Organizations (NGOs), the Water Center for the Humid Tropics of Latin America and the Caribbean (CATHALAC), McGill University and **NJP under UNEP, UNDP and FAO.**

Law No. 41 (General Environment Law) states that environmental management should be provided through three main entities:

- ANAM, as coordinating body and creator of environmental public policy
- Civil society, through the Environmental Advisory Commissions, and
- The Interagency Environment System (IES)¹³, as the coordination hub.

All these structures have representatives at the national, provincial, comarcal and district levels.

This environmental management is provided by the instruments specified in title IV of the General Environment Law, which are used in various ways by the institutions in the IES. These instruments are:

1. The Environment Plan for the territory: ANAM has developed this at the national level under the General Indicative Land Use Plan (PIGOT) and various environmental plans have been devised at the regional and local levels. The Land Use Plan is a State policy and a planning instrument designed to achieve the spatial projection of social, economic, environmental and cultural development policies; implementation of measures to guarantee improved living standards for the population and conservation of the environment; development planning using a comprehensive, forward-looking, democratic and participatory approach; strengthening of decentralization, as regards both coordinating and integrating capacity, and distribution and orderly location of activities and sustainable uses of space in harmony with the environment.
2. The process of environmental impact assessment, which is one of the most sophisticated instruments of environmental management and which has been harmonized with land use and endorsed by the general public.
3. Environmental quality standards already implemented include 11 standards in the process of being authorized, including standards for air, environment, interiors, stationary sources, mobile sources, sea and recreational water and bad smells.
4. Supervision, control and environmental oversight, closely linked with all environmental management instruments, to supervise enforcement of rules, monitor activities to ensure that they are performed correctly and correct damage done to the environment by bad practices.
5. Environmental information made available through environmental indicators, environmental statistics, online systems and a Web page used as a portal.

13 Executive Decree N° 283 of 2006, which regulates Article 16 of Law N° 41 of 1998, about the form of the Interinstitutional System of the Environment (Sistema interinstitucional del Ambiente – SIA).

6. Environmental education provided jointly with the Ministry of Education, through formal and non-formal education.
7. The program of scientific and technological research, working with SENACYT to make environmental issues a cross-cutting pillar of the national strategy for scientific and technological development.
8. Focus on environmental disasters, from early warning to prevention and mitigation, through an office created for this purpose, which formulates policies for defining a framework of guidelines.
9. Environmental accounting, currently being organized and updated.

The institutional platform for REDD must be more inclusive than the abovementioned institutions because the participation of major stakeholders in the emission reduction process is limited. In this regard, it is important to involve those partners who are primarily responsible for the decisions to eliminate or to preserve the forest cover; likewise the presence of the knowledge managers must be ensured in order that variable technology and technological advances go hand in hand with REDD management, and therefore raises the issue of creating a REDD Steering Committee.

REDD Steering Committee:

The National Environment Authority will encourage the establishment of a REDD steering committee which will act as the technical secretariat for the process. This committee will be responsible for defining and having oversight of the program activities for the implementation of REDD.

It is planned to engage consultants to properly define the way in which each stakeholder group will participate in the process, including the thematic responsibilities of each one and the way in which each subgroup of partners will be elected to membership of this steering committee. This committee will be established by the following major groups of partners:

1. SIA Working Committees:

Traditionally, SIA operates through working committees, and with this in mind, it is important that the following working committees participate through a representative.

1. National Committee for the Integrated Management of Water Resources [*Comité Nacional para la Gestión Integrada de los Recursos Hídricos* CONAGIRH], comprising government institutions who share responsibility at stages for water resources.
2. National Climate Change Committee. A government body comprising SIA institutions whose main responsibility is to define the national climate change strategy and calculate the cost of the actions to be carried out by Panama in the area of mitigation of, and adaptation to, climate change.
3. National Forest Management Committee [*Comité Nacional de Gestión Forestal* CONAGEFOR] establishes the guidelines and sets the objectives to be carried out for economic and social growth of the forestry sector by generating inputs with high value added to be featured in the international market. It has both governmental and non-governmental entities.
4. Social Cabinet, which runs the Network of Opportunities program as part of the national strategy to combat extreme poverty. The Social Cabinet consists of the Ministries and government institutions most directly involved in developing the country's social capital. The Network of Opportunities focuses on the country's extremely poor corregimientos, identified by the Poverty Map, the study of social vulnerability and the 2003 and 2008 Standard of Living Surveys. It will provide

important information to provide focus for the actions of government, including REDD. Those persons who have no monetary resources and take decisions to eliminate the forest cover as an alternative to their difficult situation. The main objective of the Network of Opportunities is to support capacity-building and to increase opportunities for access to a productive life by families in a situation of extreme poverty, guaranteeing education, health, and nutrition services and improving their quality of life. This program must be complemented by the REDD program through the support of all stakeholders.

5. The Municipal Association of Panama and the Mayors Association of Panama (AMUPA and ADALPA), comprise 75 municipalities of the Republic and their respective mayors. Their participation is fundamental, given that many of the functions of monitoring, control, and inspection of the different standards, including environmental standards, will be transferred to the municipalities over time.

2. Scientific Committees:

The scientific, technological, and teaching research institutions are a fundamental pillar through which current knowledge can help REDD's steering committee. These are:

- The Smithsonian Tropical Research Institute, For more than 100 years it has been providing research in the area of natural resources to the scientific research world;
- The recently established International Center for Sustainable Development comprises national and international private and public sector institutions;
- National Secretariat for Science, Technology and Innovation: public institutions under the portfolio of the presidency of the Republic managed by the current Government with a view to taking the technological leap into the first world;
- The Panama Council of Chancellors: all chancellors of Panamanian universities are represented on this council; and
- The Humid Tropics of Latin America and the Caribbean (CATHALAC): The Center will make available the technology necessary for measuring carbon in different phases of the GEO process.

3. Indigenous Groups

Aboriginal groups clustered in five comarcas: Emberá-Wounnan, Ngöbe Buglé, Kuna Yala, Wuargandí, and Madugandí and on Teribes collective lands have formed an organization to defend and advocate for the interests of indigenous peoples in Panama. These communities represent a high percentage of forest lands and are key stake holders in the REDD process.

4. Consultative Committees and Watershed Committees

The General Environment Law and the Watershed Law create working advisory committees, established jointly by representatives of the government sector and civil society. They have representatives from civil society up to the district level.

5. Social Fabric

Network of Institutions for Non-formal Environmental Education, Network of Environmental Educators, Environmental Volunteers, NGOs, communities organized in cooperatives and/or micro-enterprises that are building up green businesses. These stakeholders have much to contribute to each of the REDD Strategy components.

6. Private Enterprise

Enterprises that apply cleaner production, enterprises with corporate social responsibility (CSR) are the foundation for production linkages and the main supporters of environmental businesses and investments.

Provincial and Investment Schemes

The political and administrative structure of Panama consists of nine provinces and five comarcas, each of which is headed by a governor appointed by the President of the Republic. In the particular case of the comarcas, decision-making power is exercised by the general congresses, which as the traditional authority coordinate with the respective comarca governor. Each province and comarca is divided into municipalities and each municipality is divided into corregimientos. The mayors are the highest municipal authority, elected by popular vote, assisted by a municipal council composed of corregimiento representatives.

The stakeholders of the proposed structure are represented in those areas where work will be done—the province and the district. For the REDD to achieve success at the local level, an organization similar to the national one will be established. The consultants will explore and complement the work in view of the recently passed Law on Municipal Decentralization. District, comarcal, and provincial organizations shall coordinate with the national organization.

This coordination will be part of the consultancy introduced in establishing the REDD organizational structure.

Panama has identified a number of challenges to becoming REDD ready, including:

- The design and implementation of a system for monitoring, reporting, and verification for the National Environment strategy focusing on REDD
- Lack of funding for a detailed forest monitoring system, setting of permanent plots to measure carbon stock along different layers, life zones and types of forest to have ;
- Understanding drivers of deforestation and their transmission mechanisms from 1947 up to date.
- Challenges with inter-sector and inter-provincial planning.

The Proposed Joint Programme

The Panama REDD Strategy contributes to the mitigation of climatic change by reducing emissions caused by the deforestation and degradation of Panamanian forests, with the objective of recuperating and/or increasing the forest cover with respect to a national baseline. The REDD program will allow greater access to ecosystems services , will allow for maximizing environmental benefits, will seek innovative financing sources for the communities, and will strengthen of the environmental management schemes in Panama.

Specific Goals:

- Develop capacities for the implementation of concrete actions of the REDD R-Plan strategy;
- Develop a system of intensive monitoring of forest cover that will permit estimation of the carbon stock and the intervention levels in the forests of the country;

- Carry out supervision, control and inspection processes that assures the development of the REDD R-Plan strategy;
- Establish a continuous training program for participation in environmental management, including for environmental businesses that promote the REDD R-Plan strategy;
- Design a financing mechanism that allows for fair, equitable, and transparent distribution of the income generated by environmental assets and services, with direct benefits to the communities according to existing laws;
- Assure the complementarity of the REDD actions with National Environmental Strategy and country development plans, including policies for the fight against poverty;
- Promote adaptation measures that assure the availability of natural resources for future generations by means of assets production and environmental services that favor positive changes in land use.

The REDD R-Plan strategy will allow the support of adaptation processes for people and communities facing the effects climatic change. To this end, the strategy will induce an environmental culture of sustainability, based on new consumption and production patterns that will promote the “un-learning” of bad practices as well as “re-learning” of those that will allow us to face the effects of the climatic change. That culture, in addition, will permit the recuperation of the best and most suitable tools from both traditional and modern knowledge, through training, technical advisory, and the use and innovation of environmentally-friendly technology.

The REDD R-Plan strategy will be carried out from an environmental management standpoint based on the renew National Environmental Strategy that allows for economic growth, human welfare and social participation, and the preservation of our natural resources to support the creation of a low-carbon economy and to contribute to the mitigation of greenhouse gases worldwide, and the implementation of climate change adaptation measures at the local level. In this way the REDD R-Plan strategy will address essential elements of environmental management in Panama, inducing promoting natural wealth through the promotion of social wealth.

With this objective in mind, REDD provides an innovating financing mechanism in the future that will allow the country to have gain resources for social investment not through taxation, but through mechanisms of social participation that will help to transfer and effectively distribute resources and relevant information to the organizations, communities, and businesses that directly deal with environmental management. Thus, Panama has opted for mechanisms that will distribute benefits collectively while incorporating social sectors.

The minority groups that already have access to land and financial capacity, on the other hand, will be incorporated into the process by means of training in sustainable production methods that will allow them to achieve additional benefits arising from the sustainable management of farms and to adapt to climatic change. This will permit a wider participation in the collective creation of forest reserves, a greater capability for carbon retention and the promotion of an environmental culture that stimulates both the sustainability and the competitiveness of the country in the region.

Panama has granted a high level of priority to the creation of protected areas as an initiative to promote sustainable development. This is complemented with a series of programs and projects to promote the strengthening of SINAP as well as the consolidation of the Meso-America Biological Corridor of the Panamanian Atlantic, to reduce the pressure on the more important protected areas and their buffer zones through actions for the development of the local capabilities and their participation in the management of these areas. The National Program of Land Titles is also a key element in strengthening of SINAP, since it allows the legal recognition of protected areas to assure the beneficial use of productive capabilities, therefore strengthening the REDD strategy and its buffer zones, which account for most of the vegetation cover in the country.

The zones that demand urgent restoration, are the most sensitive to deterioration, and still have rich natural potentials threatened by environmentally harmful practices constitute a priority problem for sustainable development. These zones must be the subject of policies and actions defined by the National Environmental Strategy, from the Environmental Territorial Regulation for the water basins that identifies the potentials, limits, and territorial problems for an appropriate and beneficial use of these physical spaces for the prevention and mitigation of disasters.

Ex Ante Assessment of Cross-cutting Issues

Social and gender equity

The project will promote processes in which the views, needs and rights of politically marginalized groups – including women, rural poor and ethnic minorities – can be more fairly articulated in deliberations and negotiations about the use and development of natural resources. The project will improve SD policy linkages with local level realities through knowledge management and dissemination of lessons learned. Through active engagement, vulnerable groups will have better access to policy channels, and will, thus, have a stronger voice in their own development.

Women's participation in planning and decision-making on climate protection and sustainable planning is a big challenge. As women are in general more vulnerable to the effects of climate change, in particular because they represent the majority of the world's poor and because they are more than proportionally dependent on natural resources that are threatened, gender equality is an important issue in sustainable development and climate planning. Therefore it is important that gender equality concerns, in particular women's representation in decision making will be integrated in all elements of the project as a cross-cutting issue. A number of mechanisms will be established to assure that this project will be gender responsive in all its actions and initiatives. These include:

- 1) A minimum of 30 % women's participation is targeted in every training activity organized by the project including workshops, trainings and study tours.
- 2) Ensuring that all project contractors, trainers and advisory teams are gender balanced;
- 3) Inclusion of gender aspects in capacity building activities
- 4) Inclusion of gender aspects in media and advocacy activities conducted by the project, e.g. by ensuring that the produced media and advocacy material is gender sensitive avoiding gender stereotypes
- 5) The data collected is sex-disaggregated when possible.

Anticipated environmental impact

The REDD R-Plan Strategy is specifically designed to have a positive impact on the environment through the better coordination and implementation of sustainable and pro-environment policies.

Sustainability of Results

The feasibility of the Panama UN-REDD programme will be assured by a careful positioning of the programme within the context of on-going initiatives supported by international development partners and the government under National Environmental Strategy (ENA).

Given the extremely ambitious time-frame which the international community has given itself to assess the viability of REDD as an element of a post-Kyoto climate-change mitigation financial instrument, and the intended contribution of UN-REDD to negotiations on this issue,

the greatest risk is related to administrative delays in approval and mobilization of funds, recruitment of personnel and related issues.

Measures to reduce this risk have included fast-tracking and parallel processing of documentation required for approval by the donor (through UN-REDD) and GoP, and advance identification of potential issues, undertaken with UNDP Trac funds.

A related risk is a lack of coordination and collaboration among potential partners. Because REDD has emerged so quickly as a potential source of major additional funding for forest conservation, there is inevitably a risk of institutional competition among agencies involved in on-going programmes. This is seen, for example, in the debate about the extent to which the Panama UN-REDD programme should be embedded in the FSSP, or managed separately. Measures to reduce this risk include extensive consultations with development partners during the design phase, and the inclusion of Output 1.1, which will establish a coordination mechanism, and which explicitly calls for resolution of the relationship with the FSSP.

Regarding sustainability of results, the Panama UN-REDD programme represents an initial step in a process leading up to 2012, when the GoP intends to be REDD-ready.

5. Results Framework

The **Objective** of the UN-REDD Panama Programme is "*To assist the Government of Panama in developing an effective REDD regime*". This will contribute to the broader **Goal** of ensuring that "*By the end of 2012 Panama is REDD-ready and able to contribute to reducing emissions from deforestation and forest degradation nationally*".

In order to secure this objective, two outcomes will be pursued:

Outcome 1: Improved institutional capacity for national coordination to manage REDD activities in Panama

This outcome is expected to contribute to the development of national level capacities to design and implement the necessary measures and steps to establish a national REDD programme that will be able to: i) generate and monitor measurable and sustainable reductions in rates of deforestation and forest degradation; ii) sell carbon credits on the international market, provided that such a market is developed; iii) receive market or fund-based payments related to performance, and distribute these down to provincial and district levels in a transparent and equitable manner. This outcome will address a number of elements within the time frame of the UN-REDD programme (three years) through the following outputs:

A. Communication Campaign: Panama, REDD country

Once Panama was accepted as one of the pilot countries in the world to apply a REDD strategy, it became necessary to develop a communication campaign, at least on two levels:

- At the international level, pointing out the qualities of our country and the progress it has made that made it an excellent choice to implement REDD. This applies from the Head of State, government authorities, civil society, enterprises, academics, and international donors, who all together implement policies and strategies that underscore the development of an environmental culture that makes sustainable use of its resources and ecosystems, and raises the quality of life of its population;
- At the national and local levels, bringing REDD to the people in the country preparation phase, focusing on the key stakeholders.

With regard to the international level, it will be shown how the country has developed environmental policies and national strategies that highlight conservation of its natural resources, preservation of its biodiversity and especially supports the population that uses them in a sustainable manner and improve their quality of life. This coincides fully with the cross-cutting themes or issues proposed by REDD, such as:

- Pointing out the areas in which the country must act pursuant to the policies and environmental management instruments which focus on the reduction of deforestation.
- Pointing out how the funds available for the production of environmental goods and services by community organizations in the form of micro- and small businesses have been used by demonstrating that they can improve their living conditions and reduce pressure on the forests and their related resources.
- Pointing out the cross-cutting nature of the environmental theme in formal and non-formal education, supporting an environmentally sustainable culture.

At the local and national level, the REDD-focused National Environment Strategy, "Environmental Management for Sustainable Development", also involves a communication campaign which will support the outcomes and tasks derived from the baseline findings from public consultations. It will be closely geared to the objectives sought and the public targeted, which will determine the right methods for conveying our message to the society in general.

The specific role of this campaign will be:

- To expand knowledge of topics related to the problem caused by deforestation, and their alternatives for solutions, and opportunities;
- To inform about REDD and how to participate in the strategy;
- To influence attitudes in order to create support for personal or collective action; and
- To reiterate or reinforce knowledge, attitudes, or behaviors.

A communication campaign is essential for the execution and effectiveness of the REDD strategy and its components. It will increase awareness among all key stakeholders, ANAM officers, public institutions, and the industrial and business sector involved in the environmental issue, and it will also increase awareness of the public and thus all those participating in the strategy.

If citizens are to participate in communicating information on environmental management, it will be necessary to develop awareness and positive habits among Panamanians to support the process of environmental management. For this reason, a communication campaign must be designed and executed to create the necessary awareness of this topic.

The objective of the communication campaign is to foster widespread focus on the topic of REDD using the mass media. Within the communication campaign specific objectives are also identified, such as:

- Alerting the public to the importance of emissions reduction, stewardship of the environment and conservation of natural resources.
- Demonstrating, through the campaign, the leading role of the National Environment Authority in conservation of natural resources and environmental quality.

It is hoped that the main result of our communication campaign will be that Panamanians will be more aware of their responsibility for stewardship of the environment and of the need to conserve it.

The communication campaign will involve the following activities:

- Development of a creative proposal – campaign theme – to be used for the various media and adapted to the various target audiences.
- Development of designs for the various media (television, radio, magazines with a national circulation) and for mass publicity materials (videos, documentaries, posters, information leaflets, handbooks, pamphlets, stickers), promotional material (handouts, tee shirts, kits, briefcases, bags, etc) approved by representative population groups before production.
- Presentation of a production plan, including costs to be incurred for each communication instrument:
- Television spots (24 seconds)
- Radio spots (in addition to Spanish as the national language, include the dialects of the different ethnic groups in the country)
- Print media (various announcements and/or supplements in mass circulation newspapers)
- Moopies (cartoons)
- Billboards (highway or outdoors)
- Preparation of the media plan, which in addition to materials to be produced will cover participation in extensive public debate and discussion.

Who are the targeted potentially affected groups that will be involved in the consultations?

The groups identified as those which will have some kind of impact. According to the 2000 map of forest cover, Panama had 45 percent cover. In addition, almost 36 percent of the country's total area is under some type of protection (protected areas). Officially established indigenous comarcas account for 22.20 percent of the territory of Panama. However, of this percentage, only 15.7 percent have forests.

What stakeholder groups would be consulted on what components (monitoring, REDD strategy, reference scenario, etc.)

The groups selected to be consulted for each component are listed below. (See the tables giving the schedule for training under component 2 "Management of readiness")

Monitoring: ANAM, local communities, indigenous groups, national universities, STRI, McGill University, civil society, local governments, the Interagency Environmental System, non-governmental organizations (NGOs), CATHALAC and **UN Agencies**.

REDD strategy: ANAM, local communities, indigenous groups, national universities, STRI, civil society, local governments, Interagency Environmental System, Ciudad del Saber, non-governmental organizations (NGOs), CATHALAC, McGill University.

Reference scenarios: ANAM, local communities, indigenous groups, universities, STRI, civil society, local governments, Interagency Environmental System, Ciudad del Saber, non-governmental organizations (NGOs), CATHALAC, World Bank, FAO, UNDP, UNEP, Coalition for Rainforest Nations.

How are attendees selected?

Attendees will be selected under TORs, for the reference scenario component. For consultations on the other components, they will be selected in accordance with national standards for public consultations laid down in Law 41 of 1998 General Environment Law.

Stakeholder analysis: What are the potentially affected interests of the stakeholders?

The potentially affected interests of the stakeholders will be determined in the various base-line scenarios.

What role would indigenous peoples and other forest dwellers play?

Like rural communities and other users of our forests, indigenous peoples would play a very important role in REDD, since they are involved in most of the components of the strategy, including carbon monitoring and their role in our National Environment Strategy. In addition, they would participate in forest protection work, sustainable management of forests belonging to indigenous communities, development of ecotourism projects and use of non-timber forest products, and in development of agroforestry and reforestation projects

B. ANAM Actions to support the REDD Communication Campaign

Finally, apart from hiring teams of professionals to conduct and implement the communication campaign, ANAM will have the role of overseeing its implementation, as well as directing its development and making adjustments as required. Additionally, the Department for the Promotion of Environmental Culture will take a series of actions in support of this campaign as part of recognizing the need to intervene on a large scale in the the population by introducing basic knowledge and promoting sustainable practices. The following actions will be initiated:

- Disseminating via the Internet and the mass media the opportunities REDD offers to Panama, and how to make the most of them.

- Introducing REDD in the primary school teachers annual training program and in the next edition of the Teachers' Guide to Environmental Education (Guías Didácticas de Educación Ambiental);
- Holding school competitions in the five water resource zones to elicit different local and cultural perceptions of REDD;

Designing teacher's aids and audiovisual materials directed at the different established categories of "key players," for each phase of training: a practical guide to REDD in Panama, three-page leaflets on applicable environmental businesses, posters, and other materials.

Public Consultations

In this connection, ANAM will use inputs from stakeholder sectors participating in the revision of the National Environment Strategy in order to establish a diagnosis of the state of public knowledge about topics of importance to REDD and to link it with programs being implemented by ANAM. Even so, it will be necessary to hold individual consultations with specific sectors and groups, such as local governments, NGOs, comarcal authorities, indigenous groups and communities which depend on or are located in forests or protected areas or in buffer zones of basic interest for the REDD strategy. Based on an analysis of the results of these consultations, training workshops will be held that focus on identifying the causes of deforestation and forest degradation and the way in which the REDD strategy can contribute to the social and economic well-being of the participants.

In addition to public consultation done by ANAM, the Kuna Yala Institute for Research and Development (IIDKY), representing the Traditional Authorities of Panama's Indigenous Population (AOPIP), will convene 11 meetings in the following locations: Ngöbe-Buglé, Alto Bayano Emberá, Wargandí, Kuna Yala, Congreso Nacional Wounaan, Madungandí, Comarca Emberá, Tierras Colectivas Emberá, and Wounaan, Naso-Teribe Bri-Bri, Kuna de Dakar Kuna Yala. These meetings are designed to increase the awareness and knowledge of indigenous people on the topic of REDD, create a forum for dialogue to establish coordination mechanisms and the rationale for integrating indigenous people into implementation of REDD programs and thereby facilitate their participation in the future in any system of practical gains achieved by REDD. The R-Plan is one of the matters to be reviewed at these meetings. It is therefore hoped that these meetings will facilitate the active participation of the indigenous population in public consultations that ANAM will hold. (These activities will be financed with resources that IIDKY manages directly with the World Bank).

Among the tasks common to the *Public Consultations and Training Workshops* is the selection of a human team comprising 20 experts in the professions, who will be in charge of implementing TORs designed for both components. (For more details, see the tasks set out below for the workshops).

Objective of Public Consultations

- To establish a base line of information between sectors and interest groups regarding the uses and conservation needs of their forests and related resources.
- To analyze and propose, based on these needs, the best mechanisms for forest recovery and compensation, as well as environmental business and investment that are most acceptable to the various cultures, in order to improve their quality of life and integration into the REDD-Panama strategy.
- To acquire a general knowledge of the living conditions and types of organization of the persons concerned.
- To identify the media that they use and their favorite programs, so that information can be transmitted by that means.

- To evaluate the effectiveness of the training and the adjustments needed for the various sectors and/or groups.

Key players for Public Consultations

- ANAM's own staff (local, regional, national)
- Interagency Environmental System
- National Committee on Climate Change
- Local governments and Environmental Advisory Commissions
- Private enterprise and project developers
- Environmental NGOs
- Academia (universities)
- Scientists
- The social fabric: environmental volunteers, education networks, grassroots organizations, micro and small community enterprises providing environmental investments and services
- Interested groups and key cultural communities, in the sites being monitored and the protected areas.
- UN Agencies.

ANAM has made progress in identifying topics or directions which are cross-cutting in REDD, such as climate change and its impact and opportunities for our population, development policies and energy conservation, and new types of clean production. In this connection, it has created common spaces such as the Sustainability Forum, workshops and discussion groups throughout the country. However, the REDD strategy still needs to be effectively inserted in the NES, by means of initiatives in the area of environmental culture such as:

- Identifying the areas of action of ANAM relating to environmental management policies and instruments geared to the reduction of deforestation.
- Supporting the environmental investment and business programs being implemented by grassroots organizations which affect micro and small enterprises, demonstrating that they can improve living conditions and reduce pressure on forests and related resources.
- Preparing the analysis according to the sectors concerned – public, private, NGOs, academia, scientists and others – for their incorporation in the REDD strategy, clearly identifying barriers, difficulties and interest in achieving the desired results, reducing levels of poverty and extreme poverty and opening up new opportunities for the creation of new sustainable development models.
- Helping to ensure that the environment is a cross-cutting issue in formal and non-formal education, as part of this REDD strategy.
- Improving and documenting consultation arrangements on the REDD model, for use in other regions and/or countries on the basis of lessons learned in Panama. Documenting successful and unsuccessful methodologies and creating an open process through a Web page. This will establish synergy between the three components: communication campaign, consultation, and training workshops.

C. Training Plan. Environmental Education Workshop aimed at Citizen Participation

Objective:

The objective of the training plan in our REDD strategy is to promote a new environmental culture based on sustainability of human development, with special emphasis on integration of the REDD strategy, which is helping to decrease the pressure on forests and their resources and to create new alternatives for the economic and social well-being of the population.

This is a participatory program, based on the principles of the National Environment Strategy: environmental management for sustainable development, designed to promote shared environmental management, in which each of the social actors plays a motivating or executing role, depending on capacities and resources. The main focus will be on the provision of opportunities to organized grassroots groups, so that they can develop community investments and environmental business allowing them to coexist with the forest/ecosystem, engaging in productive/daily activities compatible with the potential of the natural resources surrounding them.

The Proposed Training for Action

The proposal includes a very large-scale training program targeting population groups, sectors of interest or stakeholders sharing the same vision of their role in the NEA, based on the country's five hydrological regions.

Tasks

- To define the terms of reference to be followed.
- To select a team of 20 facilitators to simultaneously train key stakeholders in each of the five hydrological regions. Each hydrological region will have a three-person team for the planning and execution of its training workshops and monitoring of the learning process, and a five-person team will provide nation-wide supervision and coordinate with ANAM the planning, execution, and monitoring of activities.
- To have the team of facilitators trained by experts connected with ANAM's Environmental Monitoring Unit and other international experts, at the Center for Sustainable Environmental Development (CEDESAM).
- To define the role of CEDESAM in the REDD strategy.
- To determine periodicity and topics by modules.

The training plan will have at least four phases, which it is planned to entrust to those identified as key REDD stakeholders.

First phase: ANAM

- Training of all ANAM staff (2,300 as at November 2008), depending on their operational level, education, and field experience. There is an introduction to the topic of REDD and a description of how it is linked to all relevant ANAM programs: basin restoration, ecosystems, climate change, the Strategic Climate Fund and other REDD-related programs.

Follow-up and monitoring of the level of knowledge acquired about REDD. At the conclusion of each workshop, an evaluation form will be completed to ascertain the extent to which the information has been assimilated and to make adjustments and/or improvements in the teaching methodology used in the workshops.

Second phase: the Interagency Environment System

- Basic training for the Interagency Environment System and the local Government Environment Units (governors, mayors, representatives).
- Provincial, district, traditional and comarcal Environmental Advisory Commissions.

Third phase: economic groups and opinion makers

- Cleaner Production (CP) firms and firms with social, business and environmental accountability; firms interested in adopting Clean Development Mechanisms (CDMs); firms involved in the Global Compact.
- Developers of projects of interest in each hydrological region, which are required to engage in impact mitigation in areas covered by REDD.
- Ecclesiastical and related groups.
- Major media in each region and those shown during the consultations to be the ones most listened to or the most important.

Fourth phase: the “social fabric” or organized social networks supporting environmental management in Panama.

- Environmental volunteers
- Networks of environmental educators
- Grassroots organizations
- Conservation groups (NGOs)

Micro and small firms or cooperatives engaged in environmental business and investment.

TRAINING SCHEDULE

FROM 2009 TO 2012

Western Block	Staff Phase I				IES/Local Government Phase II				Organized Populations and Social Networks Phase III-IV			
	09	10	11	12	09	10	11	12	09	10	11	12
Bocas del Toro	x	x				x	x			x	x	x
Chiriquí	x	x				x	x			x	x	x
C. Ngobe	x	x				x	x			x	x	x
Monit.	x	x	x	x		x	x	x		x	x	x
Eval.	x	x	x	x		x	x	x		x	x	x

Central Block	Staff Phase I				IES/Local Government Phase II				Organized Populations and Social Networks Phase III-IV			
	09	10	11	12	09	10	11	12	09	10	11	12
Veraguas,	x	x				x	x			x	x	x
Herrera,	x	x				x	x			x	x	x
Los Santos	x	x				x	x			x	x	x
Coclé	x	x				x	x			x	x	x
Monitoring	x	x	x	x		x	x	x		x	x	x
Evaluation	x	x	x	x		x	x	x		x	x	x

Metro Block	Staff Phase I				IES/Local Government Phase II				Organized Populations and Social Networks Phase III-IV			
	09	10	11	12	09	10	11	12	09	10	11	12

YEAR	09	10	11	12	09	10	11	12	09	10	11	12
Panama Metro,	x	x				x	x			x	x	x
Panama East	x	x				x	x			x	x	x
Panamá Oeste	x	x				x	x			x	x	x
ANAM Central	x	x				x	x			x	x	x
Monitoring	x	x	x	x		x	x	x		x	x	x
Evaluation	x	x	x	x		x	x	x		x	x	x

Eastern Block	Staff Phase I				IES/Local Government Phase II				Organized Populations and Social Networks Phase III-IV			
	09	10	11	12	09	10	11	12	09	10	11	12
Colón,	x	x				x	x			x	x	x
Darién,	x	x				x	x			x	x	x
Comarca Kuna Yala,	x	x			x	x	x		x	x	x	x
Comarca Madugandi	x	x			x	x	x		x	x	x	x
Comarca Embera Wounam	x	x			x	x	x		x	x	x	x
Monitoring	x	x	x	x	x	x	x	x	x	x	x	x
Evaluation	x	x	x	x	x	x	x	x	x	x	x	x

2009 Phase I: In the first quarter of the year, 17 people will be selected to form the training team, according to an agreed profile. The team will submit to staff and traditional governments the training plan to be implemented in the four blocks

Block 1 Eastern	Staff. IES/Local Government, Organized Populations and Social Networks			
2009	I	II	III	IV
Bocas del Toro		x	x	x
Chiriquí		x	x	x
Comarca Ngobe		x	x	x
Monitoring		x	x	x
Evaluation	x	x	x	x

Block 2 Central	Staff. IES/Local Government, Organized Populations and Social Networks			
2009	I	II	III	IV
Veraguas,		x	x	x
Herrera,		x	x	x
Los Santos		x	x	x
Coclé		x		
Monitoring		x	x	x
Evaluation	x	x	x	x

Block 3 Metro	Staff. IES/Local Government, Organized Populations and Social Networks			
2009	I	II	III	IV
Panama Metro,		x	x	x
Panama East		x	x	x
Panama West		x	x	x
ANAM Central		x	x	x
Monitoring		x	x	x
Evaluation	x	x	x	x

Block 4 Eastern	Staff. IES/Local Government, Organized Populations and Social Networks			
2009	I	II	III	IV
Colón,		x	x	x
Darién,		x	x	x
Comarca Kuna Yala,		x	x	x
Comarca Madugandi		x	x	x
Comarca Embera Wounam		x	x	x
Monitoring		x	x	x
Evaluation	x	x	x	x

The mechanisms for participation currently available to civil society to oversee environmental management, including REDD, include the ANAM Web site, citizens' complaint procedures, accountability procedures, environmental volunteers, basin committees, environmental advisory commissions and the participation mechanisms which organized civil society provides through the mass media and as pressure groups.

After the fourth phase of training, each team of facilitators in the five hydrological regions will prepare an evaluation of the knowledge acquired and its usefulness, through consultations specified in the TORs, and for the next cycle will use new information, uses, scenarios and proposed activities.

Each new round of training will take into consideration the results obtained for each of the REDD components, so that feedback can be given to key stakeholders on the results for the six basic components: institutional relations; management of REDD scenarios; environmental monitoring (forests, carbon stock, biodiversity); regulation and control; environmental investments and investments resulting from the separate environmental culture component. The necessary adjustments can then be made to reflect the results for each hydrological region or ethnic group of major interest, such as populations linked with indigenous comarcas and other economic or religious groups that carry significant weight in the consultation process.

The post 2012 phase

Once the seven REDD components have been put into operation ways to execute them include:

- Establishing a program to strengthen the ability to access REDD of communities, groups, and potentially interested parties ready to initiate projects;
- Providing clear information on the financial mechanisms adopted by the country and on ways to access them;
- Eliciting the interest of international cooperation agencies and identifying seed funds for REDD projects;

- Strengthening the ability of society to monitor, audit and evaluate the development of the REDD Strategy and compliance with objectives; and
- Publishing outcomes and the methodologies applied in the case of Panama and sharing information and experiences with other pilot countries in order to enrich Panama's understanding of REDD.

D. Other forms of complementing REDD with the cultural environment model

In addition to the part to be played by facilitators in conducting national surveys and training workshops for citizen participation, the Directorate for the Promotion of an Environmental Culture will support REDD by means of the cross-cutting working model it uses to address all key topics and programs for shared environmental management in Panama. The means at its disposal for this purpose are:

- CEDESAM: a research and development center serving the country with its team of professionals qualified to train small farmer and indigenous community groups in matters relating to agroforestry, sustainable use of the mangrove swamp ecosystem, management of watersheds, and so on.
- Environmental education, introducing in the environmental educators network training and support for school activities that bring the local educational community together on the subject of REDD, using the Teacher's Guide to Environmental Education and the GLOBE, Ecological Blue Flag, Connect to Knowledge and other programs in which research is carried out and knowledge applied via the Internet.
- Citizen participation to foster community environmental investments.
- Massive awareness campaigns in all the mass media.
- Dissemination targeting interest groups and sectors through the media and programs with the largest audiences.
- Teaching aids: posters, three-page leaflets, manuals, calendars, and other materials focusing on REDD.

Synergies between community investments, agencies and enterprises to strengthen REDD

- Regional meetings on sustainability. These encounters linking the country's water zones bring the social organizations conducting environmentally sustainable, ANAM-certified businesses or investments into contact with firms with social and/or environmental accountability, and channel funds to strengthen such micro enterprises or cooperatives. By November 2008, two meetings had taken place, with incipient but important outcomes. REDD can and must use this forum to gain a foothold and attain its goals;
- Strengthen citizen participation mechanisms with entities developing environment projects and services based on mitigation or compensation in REDD, based on the experience with cases such as AES Changuinola, ODEBRECHT, Supermercados Rey, COPA Airlines and the widening of the Panama Canal, and others; and
- Sustainability Forums, in which information of a scientific nature, of research results, and recent discoveries are given to the target population.

This output intends to build and strengthen capacities at different levels through awareness raising and training on specific REDD measures such as participatory monitoring, and land-use planning. The UN REDD Programme will develop a training strategy with special focus on priority issues, including measuring and monitoring methodologies, financial models, legal framework, inspection and control plans, participative management, reporting system, biodiversity preservation and municipal management.

In support of these activities, an effort will be made to put in place general REDD awareness-raising activities that target a broader audience and build support for REDD. This will entail the assessment of awareness-raising needs and opportunities, the preparation of materials (such as posters, pamphlets, radio programs, etc.), and the organization of didactic events followed by a reassessment of the level of awareness and additional awareness-raising needs.

Indicative activities contributing to this output will include:

- Assessment of current capacity building needs
- Design and production of materials and training modules to be adapted to stakeholders and sector
- Conceptualization of a training plan adapted to selected pilot municipalities
- Delivery of training modules and workshops
- Training of future trainers ("training for trainers") and set up expert networks and rosters

Outcome 2: Technical capacity to monitor, measure, report and verify the reduction of emissions from the deforestation and forest degradation

This outcome aims at building technical capacity to face the challenge of how to adequately estimate and monitor changes in forest cover, associated carbon stocks and greenhouse emissions, incremental changes due to sustainable forest management, reductions in emission from deforestation, and reduction in emissions from forest degradation. This outcome will address three key elements, namely the set up of a national inventory and monitoring system, development of a national reference scenario, and establishment of a GHG inventory system. This will be ensured through the following outputs:

2.1. National Forest Inventory and network of eco-physiological permanent sampling plots (Eco-PSP)

With the aim of improving the levels of quality relating to data on volume and biomass of timber- and secondary native forests, considered to be of average reliability currently available in the country a national forest inventory will be taken, the design of which will be done in strict observance of the technical and statistical criteria, owing to the heterogeneous character of those ecosystems.

This inventory will be taken in layers, by life zones, and type of forests, and will involve the survey of dendrometric information and the floristic composition of the forest, and this, besides facilitating the calculation of volume, will also allow for calculation of biomass and the carbon stock. To this end, diameters will be measured at 1:30 m from the ground (DAP) in trees from 10 cm upwards and those of the commercial height. If it is possible to measure the total height, this is also done; however, in native forests this parameter is very difficult to measure because of poor visibility. Nevertheless, there are allometric equations that allow for an estimate to the total biomass as a function of the DAP. For trees less than 10 cm. in diameter, smaller units within each sample unit will be established, according to statistical criteria.

Data will also be captured of the dead leaves and the biomass of dead wood, where the amount of sample units will be dependent on the statistical criteria and the levels of certainty that are determined prior to the inventory.

The data captured in the field will make it possible to determine the biomass of the trunk, branches, and leaves through the use of allometric functions recognized and validated for mainly tropical hardwood forests. Once this information is obtained, the carbon content of the

biomass per tree and per unit of surface (hectare), per zone of life, and types of vegetation (heterogeneous mature forests, cativa forests, oreyzales/salt marshes, mangroves and secondary forests, according to the state of development) may be estimated.

Once the national forest survey has been conducted and the biomass and carbon per zone of life, types of forests, and state of development of these has been calculated the carbon stock for each ecosystem and zone of life may be estimated, as well as the national total.

Implementation of the National Environment Strategy's REDD components will largely depend on the monitoring, control and inspection (MCI) processes that ensure that forestry resources continue to fulfill their two functions: conservation and the production of the goods and services they deliver. This activity will prioritize protection of the areas with most forest cover both within and outside protected areas, as well as restoration of areas stripped of vegetation, so that they are included in forestry activity.

This process will require tools, procedures, methodologies, and standardized protocols for appropriate enforcement of current environmental legislation. It will be necessary to formulate and execute monitoring programs that strengthen those already in place and take into account environmental management instruments, such as environmental impact assessments, environmental management plans, environmental adaptation and management programs, resolutions that have been adopted, contracts, and licenses to exploit natural resources⁷.

Natural resource laws complementing the General Law on the Environment define ANAM's supervisory, control and inspection function. Thus, Article 18 of the Wildlife Law establishes park rangers and forest and wild life inspectors, while the Forestry Law authorizes ANAM to perform supervisory, control and inspection functions in respect of forestry activities to ensure the rational and sustainable use of forests and grants it the authority to confiscate forest products and to impose sanctions in cases of illegal activity.

Currently, the supervision, control and inspection process focuses on specific actions such as inspections and re-inspections for forest use permits; checkpoints to oversee lumbering; verification and supervision trips; registration of forest plantations and forest industries; forest use statistics; issuance of waybills; and the mobilization of forest products for both domestic and export markets, and so on. However, ANAM has not standardized these monitoring and control activities⁸, many of which are responses to citizens' complaints rather than well-defined strategies. In contrast, the resolutions adopting Environmental Adaptation and Management Programs, the Environmental Management Plan, and pollution establish procedures to be followed for environmental inspections. Since 2001, there has been an increase in the number of inspections of projects with approved environmental impact assessments, particularly in the construction, tourism, mining and quarries, agroindustry and energy sectors. These activities are related to pressure on forest areas, although the principal cause of deforestation in the country has to do with the expansion of agriculture and livestock and infrastructure, hydroelectricity, mining and tourism development projects.

Although averages for restoration and recovery of ecosystems related to felling permits for these projects exceed 20,000 ha.⁹, no information is available regarding the total area that is to be reforested or has been reforested, and the extent of compliance. For that there would have to be improved mechanisms for integrating data on forest inventory presented by projects, data on the licenses granted based on forest inventory, and data on the area to be reforested established in the reforestation plans approved by ANAM for each project. In addition, these actions need to be directed toward restoration of degraded zones, especially those inside the SINAP and forest-friendly lands for conservation purposes.

7 Which include forest inventories, forest management plans, afforestation and reforestation plans.

8 ANAM, 2008. Sustainable Forestry Model for the Restoration of Hydrological Watersheds and Protected Areas (Modelo Forestal Sostenible Para la restauración de cuencas hidrográficas y áreas protegidas), p.25

9 Figures provided by the Regional Administrations.

Another element to evaluate in the MCI process is the reduction¹⁰ of community felling and subsistence licenses, which at one time were used inappropriately, in a manner at variance with their social purpose. That was what triggered the initiative of promoting Sustainable Forest Management projects in the Embera comarca, with a forestry certification approach.

The effectiveness of these kinds of measures must be analyzed in terms of sustainable exploitation of the resource so as to avoid fostering illegal supply in response to rapidly growing domestic demand caused by the surge in economic development and infrastructure projects¹¹. For that it is necessary to strengthen technical measures designed to promote the orderly use and management of forest resources inside and outside protected areas and to enhance the effectiveness of MCI activities by linking existing monitoring and inspection activities.

Forest fires are closely linked to forest and soil degradation. Over the past four years, there have been 2,233 registered fires, affecting 33,868.64 hectares. Prevention and control measures managed to cut the number of fires in 2008 to 239, affecting 3,180.45 hectares.

Year	Number of forest fires	Total area affected by the fires (hectares.)	Average area affected per fire (hectares)
2004	439	8,016.24	18.26
2005	355	5,999.70	16.90
2006	446	7,657.77	17.12
2007	754	9,014.48	11.95
2008	239	3,180.45	13.3

Forest fires are increasingly accompanied by environmental disasters (floods and chemical or oil and gas spills), which exacerbate forest resource losses and the degradation of the country's forest zones. ANAM's Environmental Economy Unit, for instance, estimates that "the November 2006 floods and heavy rainfall in the provinces of Panamá, Coclé and Colón wrought environmental damage and loss of ecosystemic services in the amount of US\$2,244, 242.15 in connection with forests and agricultural ecosystems,"¹² Just in the "province of Coclé damage to the environment exceeds US\$1 million, while in Colón it totaled US\$170,855.63, and in Panama province US\$894,359.68." Other natural calamities, like the floods of November 22, 2008 in Chiriquí, Bocas del Toro, Veraguas and Colón, illustrate the vulnerability of the protected areas and of riverside forests and draw attention to the need to implement mechanisms for estimating the value of damage as well as restoration activities in such zones.

Environmental Impact Assessments should include risk assessment, natural resource inventories using standardized methodologies, flora and fauna rescue and relocation plans, and technically designed mitigation, restoration and compensation measures which prioritize the protection of natural resources. The effectiveness of these measures must be monitored through standardized procedures that relate compliance with measures approved in environment management instruments (EIAs, and the Environment Adaptation and Management Programs, or PAMAs) to the protection and restoration of ecosystems.

The process of implementation of rules and regulations needs to take into account, inter alia, the impact of applying them on the human, technical, material and financial resources available in the entities competent in environmental MCI. The whole process of ongoing improvements attaches importance to the scheduling of actions; prior establishment of the processes needed for the application of mechanisms; monitoring, control and evaluation of the scheduled actions; and measurement of their effectiveness. Currently, compliance with the measures is gauged

10 A Junio de 2008 se otorgaron 4,698 permisos de aprovechamiento forestal, que representa una disminución del 67% con respecto al año 2004, donde se otorgaron 14,097 permisos, según datos del Informe de estadísticas ambientales 2004-2008, ANAM.

11 Ver anexo mapa de infraestructuras

12 ANAM – UNECA. 2006. Informe de Valoración Económica sobre los Daños Ambientales por inundaciones en las Provincias de Panamá, Coclé y Colón. (Ver Anexo)

according to the administrative sanctions imposed by ANAM for failure to heed studies of the environmental impact on forests, flora and fauna, protected areas, water and soil. For instance, there was an increase in the number and amount of fines, which totaled B/. 2,014,525 between January and June 2008. However, it would be worth evaluating other ways of measuring compliance and effectiveness with respect to the prevention or control of environmental damage to natural resources.

Decentralization of environmental management in connection with environmental MCI activities and coordination and strengthening of the bodies responsible for public order, such as the provincial, district and comarca governments, are essential for protecting the environment. Such bodies have policing powers and the authority to correct breaches of law and order without having to go through the lengthy and complex proceedings typical of, say, the administrative and judicial spheres. Article 32 of the Constitution grants them the necessary powers and, even though they are bound by Administrative Law, decisions taken at this level are more expeditious than those handed down in other proceedings.

The process of decentralization of environmental management in Panama commenced when ANAM concluded agreements with comarca Kuna Yala and with the municipalities of Bocas del Toro, David, Las Tablas, San Miguelito, Arraiján and Santiago. In addition funds were earmarked for the implementation in three pilot areas: the municipalities of David in Chiriquí, Las Tablas in Los Santos, and the three districts in the province of Bocas del Toro commencing with the creation of the Municipal Environmental Unit and assessment of the municipality's capacity, in order to define the function to be transferred or the capacity to be strengthened, a key element for promoting the environmental supervisión, control, and oversight that REDD needs in order to operate.

The process of strengthening at the municipal level will require the gradual deconcentration of functions from the central level to the regional level. The strengthened regional administrations will be responsible for providing technical support to the municipalities during the process, so that both bodies can obtain ISO 14001 certification.

Another valuable facet of the environmental MCI process is citizen participation. Over the past four years, that participation has been constant, in the form of complaints regarding breaches of environmental regulations (631 had been detected as of June 2008) to the authorities and to the Office of the Attorney General (Ministerio Público). Properly channeled, such citizen participation could strengthen and significantly support the environmental MCI process conducted by Public Administration officials.

Protection and monitoring activities are complicated, difficult and costly. Without the active, committed, informed and responsible participation of the communities, the local authorities, and inter-agency coordination, they would be impossible. Therefore, developing this component will help to improve environmental MCI tools and thereby reduce pressure on the country's forest areas and diminish deforestation and forest degradation.

Monitoring, Control, and Inspection Objective

The objective of this component is to establish a framework for carrying out all the activities needed to implement our National Environment Strategy that are covered by REDD. It will establish how the success of the strategy will be ensured by strengthening our officials' oversight, monitoring, and inspection capabilities, as well the capacity of indigenous groups, local communities and civil society to establish environmental businesses.

Expected Outcome:

Implementation of this component is expected to generate the capacity at the institutional and local level needed to ensure the success of our REDD strategy. In that sense, the most

important achievement of this component would be to have all those taking part in the implementation of this strategy feel that they "own" it.

Activities

- Strengthening ANAM's agencies and park rangers through training, certification, and the provision of technical and security equipment for monitoring and environmental surveillance, and establishing protocols defining spheres of competence and oversight/control functions;
- Developing mechanisms and criteria for joint undertakings with inter-institutional bodies (customs, police authorities), through integrated programs for monitoring the extraction, transportation, and illegal exploitation of natural resources;
- Designing and implementing protection and oversight programs for the conservation of forest lands, giving priority to protected areas and zones performing production functions;
- Developing Technical Guidelines to govern the monitoring, control, and inspection (MCI) methodology associated with the Natural Resources Administration Program in the exploitation of forests and biodiversity;
- Establishing information and analysis systems that make it possible to determine the degree of compliance of regulated activities;
- Establishing procedures for the approval, verification and registration of ecological restoration and compensation measures. Those procedures should generate the approved projects with environmental impact assessments, environmental adaptation and management programs, and penalties for damage to the environment and illegal felling, and applicable norms;
- Strengthening mechanisms for following up on environmental MCI programs by measuring the quality and state of the environment, compliance rates, progress made in getting offenders to mend their ways, number of inspections, number of administrative and judicial actions, means of providing technical assistance, sanctions and penalties imposed;
- Carrying out operations both to prevent, control, respond to, monitor and evaluate environmental disasters and to restore and recover areas affected by them;
- Strengthening regional, sectoral, and territorial capacity for the MCI process through the Environmental Justice Program for environmental justice operators, NGOs, the private sector and the general public;

Carbon Monitoring:

Carbon monitoring will be carried out by quantifying carbon stocks in the biomass of the forests and soils. For that, it will use the information generated by the forest cover and land use survey, the national forest inventory, and the network of measurement plots to be established throughout the country.

These surveys will generate data on biomass by life zone, types of forest, their stage of development, and carbon in the soils. The biomass contents in each of these strata will enable us to determine the stock of carbon in each case. The national carbon stock would be the sum of all those stocks.

The above procedure will be applied in the survey of forest cover and land uses carried out every three years. The difference in carbon stocks between the years in which it is quantified determines carbon emissions and will allow inferences to be drawn regarding the effectiveness of the REDD strategy.

The network of plots to be established in the country's different strata in order to measure biomass and carbon will, by generating information every three years, allow us to achieve a

gradual improvement in the robustness and reliability of data on the carbon stock and changes in it over time.

Once field data on the carbon stocks in the different life zones have been obtained, they should be correlated with the analysis derived from remote sensors, in order to obtain a more precise indication of the carbon stock in the different life zones in Panama.

The method adopted by Panama to estimate changes in carbon stocks include country-specific data on five carbon pools: above- and below-ground biomass, dead wood, litter and soil organic matter. The data will allow using either the summary equation 3.2.1 of the *IPCC Good Practice Guidance for LULUCF* for annual emissions or removal recommended or equation 2.3 for annual carbon stock changes of the *2006 IPCC Guidelines for National Greenhouse Gas Inventories*. The only changes in stocks not measured in the Panama methodology are those associated with Harvested Wood Products.

The Panama method has been developed nationally and was published in a scientific peer-reviewed journal, *Forest Ecology and Management*¹³. This methodology will allow Panama to estimate emissions from deforestation at the **Tier 2** level first and then to **Tier 3** later of the *IPCC Good Practice Guidance 2003 for LULUCF* and to include the following land conversions: Forest Land remaining Forest Land and Lands converted to Forest Land. It would also be applicable to three land use transitions accepted by the *2006 IPCC Guidelines for National Greenhouse Gas Inventories*: Forest Land remaining Forest Land; Forest Land converted to Cropland; Forest Land converted to Grassland.

In addition to meeting the internationally recognized methodological standards of IPCC, the Panama methodology has been designed to broadly allow participation of local experts in data collection thus favoring effective capacity building. It is therefore coherent with paragraph 9 of SBSTA conclusion (FCCC/SBSTA/2008/L.23).

In brief, carbon stocks will be estimated in 252 sites representing the different layers, ecosystem types, by life zones, and type of forests thus allowing Panama to use nationally derived estimates. Estimates of carbon stocks in Cropland and Grassland have already been published for Panama¹⁴ and will be used to estimate changes in carbon stocks resulting from land use conversion. At each sampling site four circular plots with radii of 15 m will be established for a sampling area of 2,826m², a value slightly above a quarter of hectare. The four circular plots will be located equidistantly along a 140 m long transect. In each 15 m-radius plot the diameter at breast height (DBH) of all trees, palms and lianas ≥ 10 cm DBH will be measured to the nearest millimeter. From the center of each 15 m radius plot, a 15 m transect will be laid in each of the South and East cardinal directions. The diameter of all pieces of downed woody debris (≥ 1 cm diameter) along the 15 m transects will be recorded. At the point where each transect intersected the plot perimeter (15 m), a 3 m by 3 m quadrat will be established and calipers will be used to measure the basal diameter (BD; diameter at 10 cm above the ground) of all saplings and small palms (< 5 cm DBH, $BD \geq 1$ cm). In one randomly selected corner of each 3 by 3 m quadrat a 1 m by 1 m quadrat will be established to harvest all woody vegetation with $BD < 1$ cm. Finally leaf litter will be collected in a 50 cm by 50 cm quadrat and 4 vertical soil cores from the soil surface (0 cm) to a depth of 30 cm will be collected.

13 Kirby, KR and Potvin, C. 2007. Species-level management in carbon sink projects: a case study from an Embera territory in eastern Panama. *Forest Ecology and Management* 246: 208-221.

14 Kirby and Potvin (2007); Tschakert, P., Coomes O., and Potvin C. 2007. Indigenous livelihoods, slash-and-burn-agriculture and carbon stocks in Eastern Panama. *Ecological Economics*. 60: 807-820; Wilsey, B., G. Parent, N. Roulet, T. Moore and C. Potvin. 2002. Tropical pasture carbon cycling: relationships between C source/sink strength, aboveground biomass, and grazing. *Ecology Letters* 5(3): 367-376.

Diameter measures of trees, palms, lianas and woody debris will be individually converted to measures of above-ground biomass (AGB) using allometric equations¹⁵. Results will then be scaled from Mg plot⁻¹ to Mg ha⁻¹ after correcting plot size or transect length for steepness of terrain slope. To convert AGB to carbon, the biomass of each component will be multiplied by its percent carbon content as estimated in different studies carried out in Panama¹⁶. The aboveground biomass of woody debris will be estimated using the planar-intersect method¹⁷ after classifying debris according to diameter and as either sound or rotten. The litter carbon stock will be determined following Kraenzel et al. 2003¹⁸. As recommended by the *2006 IPCC Guidelines for National Greenhouse Gas Inventories*, organic carbon content, soil bulk density and the proportion of coarse fragments in the soil will be measured for each soil core.

Specialists will help the ANAM and CATHALAC team to correlate the data.

Panama also recognizes the need to hire an independent auditor to corroborate possible emission reduction certifications.

Monitoring of forest degradation

While, so far, there are no known methodologies for monitoring forest degradation, it is possible, pending the development of monitoring models, to resort to measurement and monitoring of certain variables in forest ecosystems that may furnish valuable information for determining degrees of forest degradation.

From a dendrometric perspective, variables such as basal area, volumes per diametric range, forest density per surface area and floristic composition are some of the variables that, if properly monitored in respect of their changes over time, could permit inferences to be made as to the health and quality of forests and thereby determine whether the forest is being degraded or conserved. Through remote sensor monitoring, it will be possible to identify changes in the spectral characteristics of forests between pictures taken in different periods, which will provide the surface and location data needed for a field evaluation during which, based on statistical criteria, the aforementioned variables are measured. Subsequent analysis of the findings will tell us whether the forest has undergone changes in its structure and composition. We should mention that during the forest inventory all the above-mentioned variables will be measured. That should provide the baseline data allowing us to determine changes in the structure and composition of forests. Those variables will also be measured in the network of plots to be established all over Panama.

Based on the surface determined by remote technology and measurement of the volumes of forest in that area, it will be possible to calculate how much biomass has been affected and the quantity of carbon lost. Once it is established that the forest has been affected, the cause will be identified and appropriate measures adopted to counter them and ensure the recovery of the ecosystem.

Constant remote sensor and terrestrial monitoring of these areas will also make it possible to determine outcomes with respect to their recovery, as a result of oversight and inspection arrangements.

15 Chave, J., Andalo, C., Brown, S., Cairns, M.A., Chambers, J.Q., Eamus, D., Folster, H., Fromard, F., Higuchi, N., Kira, T., Lescure, J.-P., Nelson, B.W., Ogawa, H., Puig, H., Riera, B., Yamakura, T., 2005. Tree allometry and improved estimation of carbon stocks and balance in tropical forests. *Oecologia* 145(1):87-99.

16 Kraenzel, M.B., T. Moore, A. Castillo and C. Potvin. 2003. Carbon Storage of Harvest-Age Teak (*Tectona grandis*) Plantations, Panama. *Forest Ecology and Management* 173: 213-225; Elias, M. and Potvin C. 2003. Assessing intra- and inter-specific variation in trunk carbon concentration for 32 neotropical tree species. *Canadian Journal of Forest Research* 33:1039-1045.

17 Brown, J.K. and Roussopoulos, P.J., 1974. Eliminating biases in the planar intersect method for estimating volumes of small fuels. *Forest Science* 20:350-356; Clark, D.B., Clark, D.A., Brown, S., Oberbauer, S.F. and Veldkamp, E., 2002. Stocks and flows of coarse woody debris across a tropical rain forest nutrient and topography gradient. *Forest Ecology and Management* 164:237-248.

18 Kraenzel, et al. 2003.

Monitoring of forest fires and burnt areas

Forest fires occur in the dry season in the different vegetation zones for reasons that range from deforestation and the maintenance of agricultural areas to natural causes. These events affect vegetation cover due to the loss of forest and they contribute significantly to emission of carbon dioxide (CO₂) into the atmosphere.

Middle America and the Caribbean have an innovative on-line interactive system for detecting fires, which functions as part of the Regional Visualization and Monitoring System (SERVIR). It allows manual integration of automated fire detection data with the help of images from the GOES, POLAR and MODIS satellites and the Defense Meteorological Satellite Program. The result is a controlled quality visualization of the location of fires and the smoke plumes detected by meteorological satellites in nearly real time, with a lag of approximately 45 minutes. This will enable the forest firefighters department to take swift action.

Apart from detecting active fires, the forest fire monitoring system must use satellite images with moderate spatial resolution and daily temporal resolution, such as MODIS, in order to obtain a spatial data base meeting ISO 19000 geographic information standards, with the areas affected and the temporal dynamics of the phenomenon. This is in line with REDD objectives regarding estimation of areas of deforestation and degradation caused by fires. The forest fires monitoring system will be the starting point, leading in the medium or long term to a reliable spatial data base that will enable the authorities to take optimal decisions for preventing and controlling fires and for restoring the areas they degrade. The information provided by the system, like that on forest monitoring, will be available on the Internet through on-line map services in accordance with OGC (Open Geospatial Consortium), so as to guarantee interoperability with national and international systems.

Forest structure

The structure of a forest plays a key role in processes involving the exchange of matter and energy between a plant and the atmosphere. For that reason, describing its state and condition is a core objective in studies of vegetation growth, which in turn is a priority for evaluating and monitoring deforestation and forest degradation. Both the Leaf Area Index (LAI) and Leaf Angle Distribution (LAD) are indicators widely used to represent the vegetative architecture of the aerial part, a process that is enormously facilitated by satellites equipped with optical instruments that indirectly gauge the LAI by measuring photosynthetically active radiation above and below the canopy. Considering the resolution of the images used, daily, weekly, monthly, or annual indicators can be generated, as needed.

Forest biomass

Forest biomass will be monitored using the Normalized Difference Vegetation Index (NDVI), which is a sensitive indicator for estimating development of vegetation based on measurement of the intensity of radiation in certain bands of the electromagnetic spectrum by analyzing the spectral response of the vegetation, which it emits or reflects using remote sensors. This methodology allows us to identify and monitor the areas on a daily, weekly, monthly, or annual basis, depending on the satellites being used.

Monitoring of climate change

In addition to ascertaining the state of the forests, deforestation and forest degradation, it is essential to stop the deforestation and the greenhouse gas emissions associated with it. That in turn means controlling the factors that cause those changes, such as the weather and climate. In Middle America and the Caribbean, the climate exerts great influence on both human development and environmental management. Panama is vulnerable to extreme events, such

as floods, a fact that underscores the importance of the SERVIR project in climate surveillance and forecasts in the region.

All these remote sensor indicators need to be strengthened with information generated by forest monitoring and for that Panama will request an expert on the subject.

Biological monitoring

Biological monitoring provides baseline information for understanding the behavior of an ecosystem over time. That makes it possible to describe the dynamics of natural communities and the consequences of human influences, and to predict and/or prevent undesired changes. The basic technical information for this monitoring will be taken from the updated versions of the Forest Cover Map and the Ecosystems Map and from previous studies carried out in Panama.

The biological monitoring component in the REDD strategy will make it possible to verify what changes occur in biodiversity, in order to comply with the conventions on climate change, biodiversity and combating drought and desertification. The biological monitoring component will also permit capacity-building among officials in ANAM's regional administrations, as well as strategic partnerships with specialized NGOs, such as the Herpetological Circle, the Mastozoological Society of Panama, and the Audubon Society, community organizations, local authorities, and academic institutions in Panama and abroad, in order to engage in biological monitoring activities. The biological monitoring findings derived from the information gathered on field trips will be incorporated into a database to be shared through SINIA.

It is common to resort to the use of bioindicators to decipher environmental factors, from species or associations of species to attributes corresponding to other organizational levels of the ecosystem, such as populations and communities. For this process, the use of amphibians and bats of the *Phyllostomidae* family are the recommended indicators. Nevertheless, there is a need to identify other bioindicators, depending on the life zones, in consultation with the national experts in each group. It would exceed the bounds of this paper to describe methodologies for each group. For that reason, it describes the methodologies for these two groups.

As is well known, amphibians show strong ties to their natural habitats, a characteristic that, combined with their sensitivity to change, allows us to interpret the quality of the habitats. That means they can be used as excellent bioindicators for detecting changes in ecosystems brought about by human intervention or climatic disturbances.

Monitoring amphibians will be done using the transect method, which consists of moving by day and by night along a predetermined stretch and at a uniform speed, while attempting to detect the presence of individual amphibians or groups of them. The transects will be placed inside a homogeneous sample unit or in such a way that they pass through representative portions of the environmental heterogeneity of the area being studied. The species are identified essentially by means of visual and auditory observations, supplemented with recordings of the sounds they make, which are later examined with the help of computer programs designed to analyze monograms. Samples will also be collected when there are doubts as to the species. The amphibians are registered on field trip forms, which contain, in addition to the species, data on climate conditions, the time an observation was made, type of habitat (dead leaves, underbrush, canopy), and the type of activity (daytime, nighttime) of the species.

Bats of the *Phyllostomidae* family are, ecologically, highly diverse, because their six sub-families include approximately 123 species with a wide range of feeding habits: carnivorous and insectivorous (*Phyllostominae*), frugivorous (fruit-eating) (*Carollinae* and *Stenodermatinae*), nectarivorous (*Glossophaginae* and *Phyllonycterinae*), and hematophagous (*Desmodontinae*, vampire bats). That means they are promising indicators of alterations to a habitat brought about by human activity.

The chiropters will be monitored by capturing them in six 12m by 2.5m mist nets, placed parallel to one another with some 10m between them, depending on the area to be evaluated.

Two nets will be hung in each of the five stations in the sample: one to capture the species flying at the underbrush level (0 to 2.5 m above the ground and the other to capture the species flying at the sub-canopy level (6 to 10m depending on the size of the forest and availability of the area). These will be opened at 5:00 p.m. until 1:00 a.m., with one night being evaluated for each sample site.

Although it is true that this paper mentions only two large groups that will be used as indicators, our proposal envisages broader sampling. As part of our National Environment Strategy focusing on Conservation for Sustainable Development, other bioindicators will be identified, depending on the life zones, as was mentioned earlier.

It is to be noted that REDD preparation funds will also help Panama meet some of its commitments under other Conventions, such as that on Biological Diversity.

Monitoring of progress in implementing REDD locally requires the capacity to monitor forest carbon stocks. Since payments and other benefits for local stakeholders (frequently ethnic minorities and rural poor) are related to performance, those stakeholders need to have the means of participating in the carbon stock assessments in order to be assured of fair compensation for their inputs.

Indicative activities contributing to this output will include:

- Design of a national forest inventory to measure carbon stocks and carbon stock change in compliance with IPCC AFOLU 2006 Tier 3
- Development of methods to measure biomass and carbon and establish a protocol to estimate the stocks and carbon flows that meet the requirements of Tier 3
- Training of national technical staff involved in the implementation of the inventory and monitoring system in application of participatory carbon stock monitoring methods
- Establishing a network of specialized and permanent sampling plots to measure and assess other environmental REDD co-benefits (e.g. biodiversity)
- Procurement of equipment and materials
- Implementation

2.2 Forest land monitoring system

In order to implement any REDD activity or measurement, the Government of Panama will have to monitor all its national territory. The satellite RS data and techniques allow to annually monitor all the national territory in a scale which is suitable with the current reporting requirement under UNFCCC. Following the example of the Brazilian PRODES project which detects forest loss in the Amazon region, Panama will establish a wall-to-wall satellite monitoring system that should allow the country to report on activity data (land use and land use change) and should also allow national and sub-national REDD implementation.

Technology based on remote sensors, geographic information systems, algorithms and spatial integrated models have made a huge contribution to surveillance of forest ecosystems. That being so, the National Environment Authority helped organize a Regional Monitoring and Visualization System (SERVIR), which was established in Panama, in 2005, at the Water Center for the Humid Tropics of Latin America and the Caribbean (CATHALAC) and constitutes a platform for observing, predicting and modeling environmental processes in Panama and seven other countries in the region. In that sense, this proposal is backed by recognized expertise in the monitoring of changes in land use (including deforestation, in developing climate change models, and with respect to extreme events that affect ecosystems, which indeed constitute critical elements for reducing the emissions derived from deforestation. For their part, the projects developed through CATHALAC are scientifically backed by NASA, EPA and NOAA in the United States, the World Bank, UNEP, UNDP, FAO and recognized as an "early achievement) of the Global Earth Observation System of Systems (GEOSS).

Considering that IPCC Tier 3 requires countries to use factors based on comprehensive field samples to estimate and monitor forest carbon reserves, through these technologies that combine information derived from remote perception analysis or other kinds of contributions using modern technology, with high resolution, specific kinds of extraction algorithms duly verified in the field, we will be able to use a model that is both efficient and sustainable.

In order to address climate change and deforestation considerations, as well as the transformation of terrestrial cover, in a context in which we want not only to monitor REDD effectively but also to assess the health of forest ecosystems, we propose developing the following methodologies with robust indicators that allow us to monitor conditions and trends in forest degradation.

In that connection, CATHALAC offers Panama a series of very high-tech indicators directly related to ongoing monitoring of the health of our ecosystems. They will enable us to verify with greater precision deforestation and degradation rates directly linked to the carbon stock in our forests at different intervals of space and time and it will facilitate preventive measures such as periodic reports at both the national and international level. These indicators will enable Panama to lower the degree of uncertainty in relation to the data obtained.

Indicative activities contributing to this output will include:

- Design a comprehensive wall-to-wall satellite monitoring system
- Develop methodologies to assess land cover and land use changes using Landsat class data
- Develop a real-time methodologies to monitor canopy cover changes, deforestation and active fires
- Develop a web-gis portal for data visualization and distribution

2.3. "Reference Emissions Level"

Panama needs to conduct an in-depth analysis of the processes that have led us to deforestation. In 2000, Panama had a forest cover of 45%, down from the 70% we had in 1947, which means that in that lapse there had been deforestation of approximately 25%. There were numerous causes underlying these processes. The reasons adduced are usually referred to in a very general manner. In our opinion, however, in order to construct reference scenarios, it is necessary to examine in detail all the factors that led to the deforestation and which, undoubtedly, changed over time.

As the document mentions, extensive agriculture, cattle breeding, the growth of urban areas, lack of legislation, the squandering of forest resources, illegal felling of trees are referred to as the principal causes of deforestation. However, to grasp this in greater detail and to see where we stand today, it is necessary to reconstruct the history of the country's forests and to take a detailed look at what was happening in those areas in which, year after year, deforestation was taking place, and to analyze the causes in greater depth. Data on all this are dispersed in a number of agencies, which have yet to put them together.

Once we have achieved this objective, we will be in a position to develop more precise reference scenarios to be discussed by a broader panel, in which the Participants Committee of the Forest Carbon Partnership Facility (FCPF) can express its opinion and hear what Panama has to say. We mention that because these are issues currently being debated among the parties involved, who talk unofficially of historic scenarios and of going back five (5) years before the Conference of the Parties, COP-11 (on climate change) in Montreal, which takes us back to 2000.

Regardless of whether the year 2,000 or an earlier year is taken, the need to reconstruct forest history is imperative, in order to work out reference scenarios.

Once we achieve that, it will be possible to project future scenarios, of which there will have to be several, based on what emerges from the historical reference materials. In other words, we need to project the different paths the country may take depending on its blueprints for development of infrastructure, tourism, energy, housing, food security, economic growth, the impacts of climate change, and other elements, taking into account the effectiveness of current environmental legislation and any legal lacunae that need to be filled.

The work done in developing this baseline will enable us to identify gaps both in information and in the implementation of methodologies for preparing inventories of greenhouse gases and change of land use and forestry.

Panama is currently drawing up its second INGEIS (greenhouse gases inventory), in which the preliminary data suggest that change of land/soil use continues to be the principal source of emissions in Panama, particularly in the agriculture and livestock sector, which is one of the biggest emitters.

The methodology being used to compile the second INGEIS is that recommended in the IPCC Guidelines for National Greenhouse Gas Inventories (2003 edition), which includes identification of the use of land by type of forest and climate zones in order to detect changes over time by category and subcategory (agricultural use, forest, and pastures). Even though the INGEI includes calculation of carbon sequestration and liberation due to change of land use, the information generated lacks sufficient quality and reliability to reduce levels of uncertainty.

In Panama, efforts have been made to estimate forest cover at the national and regional level and in specific areas. The results can be seen in the historical data on national forest cover for 1992 and 2000; the vegetation map (CBMAP 2000 and 2003); and regional maps, such as the Regional Plan for the Development of the Interoceanic Region of 1996, the Bayano Basin Management Plan of 1998; the Map of Darién Province produced by the Darién Sustainable Development project in 1998; and the map of forest cover in the Panama Canal Basin of 1999. All these maps were prepared using satellite information. A map is currently being constructed of forest cover in 2008, to be published in 2009.

In addition to these data, the Regional System for Visualization and Monitoring (SERVIR) provides access to almost real time data on active forest fires through the fire detection system installed in Panama by NOAA, the National Oceanic and Atmospheric Administration office. This service, which will be made available by CATHALAC, makes it possible to arrive at a very precise assessment of the part played by the frequent forest fires during the dry season in the generation of environmental disasters, harm to human health, the loss and degradation of forests and biodiversity, and greenhouse gas emissions into the atmosphere.

Panama is currently engaged, nationwide, in commercial reforestation projects for ecological compensation purposes, run by communities, NGOs, schools and ANAM itself¹⁹. Thought is also being given to the possibility of improving the conditions for forest investments by fostering forest businesses, given the high degree of competitiveness of the forest sector in Panama, according to a study the IDB.

Under Forestry Law No. 1 of February 3, 1994, Panama has a Forest Registry, containing information on forest plantation projects and on individuals and corporations engaged in the exploitation, industrialization, marketing, reforestation and production of nurseries. In addition, the forestry statistics system contains information on forestry by type of concession, community licenses, private holding licenses, subsistence permits, waybills, felling permits, land clearance permits, prescribed field burning permits, and registered chainsaws. Altogether, the following information is available:

Forest cover and land use

- 1:250,000-scale Map of National Forest Cover and Land Use. 1992
- 1:250,000-scale Map of National Forest Cover and Land Use. 2000

¹⁹ <http://mapserver.anam.gob.pa/website/reforestacion>

- 1:250,000-scale Map of National Forest Cover, by altitude. 2000
- Map of Changes in Forest Cover, 1992-2000-2008
- Project to conserve and repopulate threatened area of the Panamanian Pacific mangrove forest (in local areas)

Forest Management / Forestation and Reforestation

- Forest inventories (at the sub-regional level, at the concession level and one at the national level, but carried out in 1970).
- Reforestation projects
- Forestation, reforestation, and deforestation activities

Satellite images

- Landsat satellite images of the entire country for 1988-1992 and 1998-2001
- Aster satellite images
- Ortophotos

Additional information

- National system of protected areas and management plans
- Watersheds
- Environmental Land Use Plans
- Land/Soil and land/soil degradation
- Indigenous territory and communities
- Poverty
- Altitude and gradients
- Climate
- Rainfall
- Temperature
- Vegetation.

Even so, the National Forest Inventory is currently being carried out by ANAM. It should provide reliable information on volumes and biomass by life zone, type of forest, change of land use and type of land. Terms of reference will need to be prepared for this.

Preparation of the baseline will provide an update tool for systematizing and tracking the information and make it possible to underscore the competitiveness of land uses with respect to carbon fixation. That will, first and foremost, require preparation of the terms of reference for analyzing existing information and generating both the base scenario and trends. Accordingly, attention will have to be paid to the following, already identified, lacunae:

- The periodicity with which forest cover has been monitored nationwide has been every eight years. That has to be reduced to three years.

- There are shortcomings with respect to studies of the dynamics and distribution of forest fires based on satellite imagery. For effective monitoring of the problem, affected areas have to be identified, demarcated, and characterized.
- The National Forest Inventory is not up-to-date. The terms of reference for this task have not yet been established.
- There is still considerable uncertainty surrounding the methodologies applied and the information available for calculating carbon based on land use and change in land use, and future projections of those figures. To address this problem, ANAM is now using the 2003 IPCC Guidelines for Greenhouse Gas Inventories and, together with CATHALAC, it is now developing an appropriate methodology for studying and analyzing forest degradation.

Indicative activities contributing to this output will include:

- Collecting and harmonizing data and existing information
- Preparation of an interim REL, preferably including several options
- Update of the R.E.L when new forest inventory data is available
- Reviewing of the proposals from experts from the UNFCCC Secretariat
- Training of government officials in analysis of data and formulation of reference scenario
- Organization of workshops or other events to promote stakeholder buy-in, especially those stakeholders who are often marginalized (ethnic minorities and the rural poor)

2.4. Inventory system for greenhouse gases developed

As part of the institutional strengthening component, this output intends to support The Climate Change and Desertification Unit of ANAM. The UN REDD Programme will provide support to the government in assessing opportunities for collaboration and exploring synergies with existing institutions. Formulation of Terms of Reference and guidelines will require sound and effective institutional support, rigorous technical advisory and appropriate resource allocation for the establishment of successful methodologies and verification means. The technical capacity of key actors will be strengthened through training programs and the promotion of knowledge exchange.

Indicative activities contributing to this output will include:

- Support to The Climate Change and Desertification Unit of ANAM
- Assessment of opportunities for collaboration and institutional synergies
- Preparation of terms of reference
- Training of government officials
- Development of a system for preparation and verification of reports

These outcomes and outputs, together with priorities, indicators, resource allocation and indicative time frame are presented in the *Resource Framework Summary* matrix in Table 1.

Activities to achieve outcomes

1. Work together and close coordination with FCPF-WB program in the R-Plan proposed by Panama in order to complement the different activities proposed under outcome 1 and outcome 2.
2. **Under Outcome 1, The NJP will be asked to support ANAM to implement section C of Outcome 1.1 and design the plan together. This section is related to Training Plan under Environmental Education workshops aimed at all Citizen Participation. UN Agency implementing together with ANAM would be UNEP.**
3. **Under Outcome 2, The NJP will be asked to support ANAM & CATHALAC to implement section 2 related to Forest Land Monitoring System. UN Agency implementing with ANAM and CATHALAC would be FAO**

Partners and organizations involved

UNDP, UNEP, FAO, WB, STRI, ANAM, McGill University, CATHALAC, and others.

Schedule and sequencing of activities

It is estimated that it will take 4 years to complete these activities, as follows:

- Points 1, should be completed within (2) months;
- Points 2 should be completed in six (6) months and 3 should be completed in the following four (4) years;

Activities to achieve Point 2 will include:

- *Consultations and Workshops: general model proposed.*
- *Establish a baseline of information between sectors and interest groups in the country, with regard to the use of, and the need to conserve, the forests and their associated resources.*
- *Environmental Education Workshop geared to Citizen Participation.*
- *Hire a team of 17 facilitators.*
- *Train a team of facilitators by experts associated with ANAM's Environmental Monitoring Unit.*
- *Define the Training Plan, schedule, role of CEDESAM, and topics by module.*
- *Train ANAM's Officers*

Activities to achieve Point 3 will include:

- National forest inventory and network of eco-physiological permanent sampling plots (Eco-PSP)
- Forest land monitoring system
- Reference Emissions Level Scenarios
- Inventory system for greenhouse gases

Budget: Outcome 1.1 Section C

ACTIVITIES	Total	Year/2009
Total	820,000	
Implement the training plan. 2009 (PHASE I)	820,000	820,000
<i>Consultations and Workshops: general model proposed. *</i>		100,000
<i>Establish a <u>baseline</u> of information between sectors and interest groups in the country, with regard to the use of, and the need to conserve, the forests and their associated resources. *</i>		50,000
<i>Environmental Education Workshop geared to Citizen Participation. *</i>		350,000
<i>Hire a team of 17 facilitators. *</i>		70,000
<i>Train a team of facilitators by experts associated with ANAM's Environmental Monitoring Unit. *</i>		20,000
<i>Define the Training Plan, schedule, role of CEDESAM, and topics by module. *</i>		50,000
<i>Anam's officers*</i>		50,000
<i>Interinstitutional Environmental Sistem (SIA)</i>		60.000
<i>The "social fabric" or networks of social organization to support the environmental management of the country</i>		70.000

2.1. National forest inventory and network of eco-physiological permanent sampling plots (Eco-PSP)	FAO	Stated priorities	ANAM/	<ul style="list-style-type: none"> • Design a national inventory and forest and carbon monitoring system that meets IPCC Tier 3. • Develop/enhance the methods to measure biomass and carbon and establish a protocol to estimate the stocks and carbon flows that meet the requirements of Tier 3 • Training of national technical staff • Procure equipment and materials. • Implementation. • Eco-PSP development of measurement protocol • Eco-PSP locations and setting up • Eco-PSP continuously ongoing measurements 	400,000	1,000,000		1,400,000
2.2 Forest land monitoring system	FAO	Stated priorities	ANAM/CATHA LAC	<ul style="list-style-type: none"> • Design a comprehensive wall-to-wall satellite monitoring system • Develop methodologies to assess land cover and land use changes using Landsat class data • Develop a real-time methodologies to monitor canopy cover changes, deforestation and active fires • Develop a web-gis portal for data visualization and distribution 	600,000	800,000		1,400,000
2.3. Reference Emissions Level scenarios	FAO	Stated priorities	ANAM/	<ul style="list-style-type: none"> • Review of methodologies for establishing REL • Development of methodological options • Compilation of data to support REL • Stakeholder consultation on REL methodological approach 	100,000	200,000		300,000
2.4. Inventory system for greenhouse gases	FAO-UNEP	Stated priorities	ANAM/	<ul style="list-style-type: none"> • <i>Consultations and Workshops: general model proposed.</i> • <i>Establish a <u>baseline</u> of information between sectors and interest groups in the country, with regard to the use of, and the need to conserve, the forests and their associated resources</i> • <i>Environmental Education Workshop geared to Citizen Participation</i> • <i>Hire a team of 17 facilitators</i> • <i>Train a team of facilitators by experts associated with ANAM's Environmental Monitoring Unit</i> • <i>Define the Training Plan, schedule, role of CEDESAM, and topics by module.</i> • <i>ANAMs officers</i> 	690,000	690,000		1,380,000
Sub-totals and Grand Total are inclusive of all support costs.					1,790,000	2,690,000		4,480,000

6. Management and Coordination Arrangements

Structure and procedures Policy Board

The UN-REDD Policy Board provides overall leadership and sets the strategic direction of the UN-REDD Programme. It decides on Programme financial allocations, in line with the budget parameters set out in the UN-REDD Framework Document, and develops monitoring mechanisms, with a view to ensuring Fund-wide success. The UN-REDD Policy Body will ensure coordination with REDD actors at a global scale, such as the World Bank's FCPF participants' committee. The Terms of Reference and Rules of Procedure for the UN-REDD Policy Board will be made available on the UN-REDD Programme website www.un-redd.net

Technical Secretariat

The UN-REDD Technical Secretariat serves the Policy Board, using the capacities of the participating UN organizations, research institutions and recognized experts. It ensures policies and strategies decided by the Policy Board are implemented and adhered to. The Secretariat will manage the national joint programme review process. It will also manage the UN-REDD's overall monitoring and evaluation function which includes *inter alia* monitoring allocations to and delivery by the country joint programmes, and tracking Programme-wide progress and ensuring that monitoring mechanisms are applied.

The Secretariat's main roles can be summarized as follows:

- Policy Board support
- Partner and external relations
- Quality assurance and oversight of national joint programmes
- Quality assurance and oversight of the International Support Functions described in the Global Joint Programme (hereafter referred to as the "Global Joint Programme")
- Monitoring and knowledge management

Participating UN Organizations' Coordination Group

The Participating UN Organizations' Coordination Group consists of representatives of the three UN agencies: FAO, UNDP, and UNEP. The Coordination Group will have the main function in ensuring active, participatory and well-coordinated engagement by the agencies to implement the goals and objectives of the overall UN-REDD Programme, as well as to provide oversight of the Secretariat consistent with the strategic directions and decisions provided by the Policy Board.

Administrative Agent

The UNDP Multi-Donor Trust Fund (MDTF) Office is the Administrative Agent of the UN-REDD Fund. The MDTF Office manages the distribution of resources and serves as the administrative interface with donors. UNDP's accountability as the Administrative Agent is set out in the policy "UNDP's Accountability when acting as Administrative Agent in MDTFs and/or UN Joint Programmes using the pass-through fund management modality".

The MDTF Office as AA will be responsible for:

- Receipt, administration and management of contributions from donors;
- Disbursement of funds to the Participating UN Organization, in accordance with the instructions of the UN-REDD Policy Board;

- Provide support to FAO, UNDP and UNEP in their reporting functions;
- Compilation of consolidated narrative and financial reports to the Policy Board through the Technical Secretariat, national steering committees and to donors.

The Administrative Agent may undertake additional functions at the request of the Participating UN Organizations. The Administrative Agent will charge a one time fee of 1 per cent for fund administration and fiduciary responsibilities which will be provided in advance on the basis of Programme Documents budgets approved by the Policy Board.

UN Resident Coordinators

The UN-REDD Programme will be supported by UN Resident Coordinators in their strategic leadership of the UN Country Team and relationships with national authorities. The UN Resident Coordinator will provide ongoing oversight to the joint programme at the national level, ensuring the participating UN organizations are meeting their obligations. The Resident Coordinator is entrusted with supporting the overall programme design under the government's leadership, ongoing programmatic oversight of the UN-REDD activities and UN coordination with the National REDD Office where such exist. The Resident Coordinator also facilitates ongoing monitoring and evaluation of UN-REDD activities in conformity with UN standards. On receipt of consolidated country level reports, the Resident Coordinator will provide an overall assessment of the programme's progress and results. He/she will also facilitate ongoing monitoring and evaluation of Fund-supported activities in conformity with UN standards and any guidance provided by the UN-REDD Technical Secretariat or Policy Board.

National REDD Committee

A National REDD Steering Committee mechanism will be established to provide operational coordination to the Joint Programme and integration under the UNDAF thematic structures in place at the country level. The establishment of a country-led National REDD Office will be encouraged to provide day-to-day management of the Joint Programme, coordinate national REDD activities, ensure whole-of-government responses, and integrate REDD into national development planning processes.

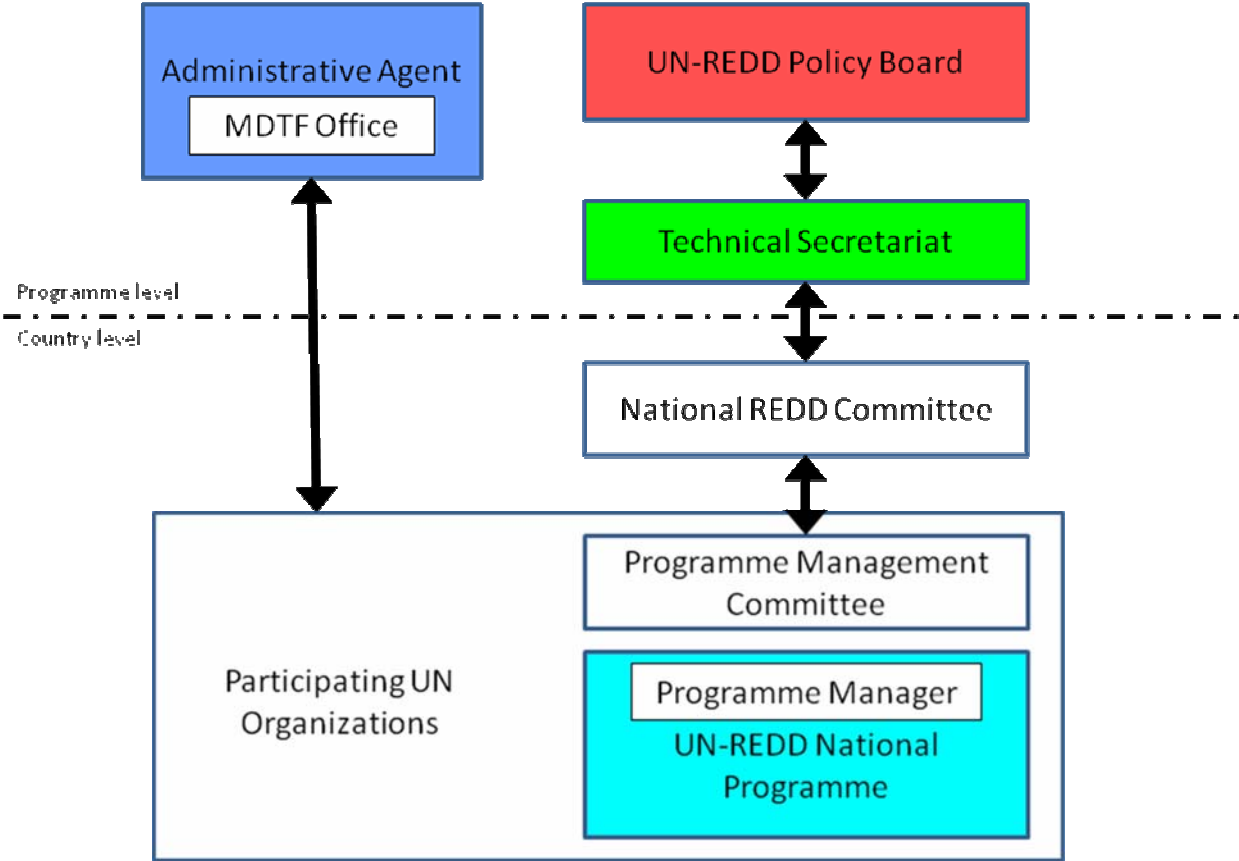
Resident Coordinators are encouraged to keep Country Team members fully-informed on UN-REDD activities. Involvement of the Government in the deliberations concerning the Fund-related activities in the country is also crucial. The UN-REDD Programme also looks to Resident Coordinators to reach out to NGOs, CSOs, national governments and non-resident UN agencies, where appropriate.

Activities supported by UN-REDD at the country level are expected to take the form of Joint UN Programmes whereby multiple UN organizations collaborate around a common programmatic goal. Funds will be channeled to individual organizations to meet their commitments to the Joint Programme, through the Administrative Agent.

Programme Coordinator

An internationally or nationally recruited programme coordinator will be recruited for the duration of the Panama UN-REDD programme. The programme coordinator will be responsible for overall delivery of the programme, including monitoring of progress. He/she shall be based in ANAM, and will be responsible for ensuring that the responsible UN agencies and implementing partners (as defined in Table 2) organize and deliver results according to the logical framework matrix (Table 1). The programme coordinator will also be responsible for maintaining regular contact with other development partners to ensure that the Panama UN-REDD programme responds to new initiatives developed by those partners.

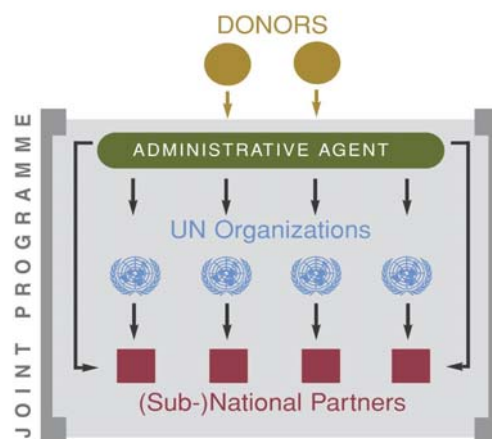
Figure 1: UN-REDD National Management Arrangements



7. Fund Management Arrangements

The UN-REDD Collaborative Programme utilizes the 'pass-through' modality for fund management (see below graphic illustration). Participating UN organizations, in this case FAO, UNDP and UNEP, assume full programmatic and financial accountability for the funds received from the Administrative Agent.

Graphic illustration of fund management for a Joint Programme with Pass-Through Funding



Each Participating UN Organization shall decide on the execution process with its partners and counterparts following the organization's own regulation and rules. National governments, Regional Development Banks and NGOs can receive funding through a Participating UN Organization and act as executing agencies. Participating UN Organizations shall be entitled to deduct their indirect costs on contributions received according to their own regulations and rules, taking into account the size and complexity of the particular programme. Any indirect costs will be reflected in the Joint Programme submitted to the Technical Secretariat. Indirect costs will not exceed 7 per cent of the project budget. These costs cover general oversight, management, and quality control, in accordance with its financial regulations and rules. Specialized service delivery costs for programme and project implementation may be recovered directly, in accordance with the respective Participating UN Organizations' policies.

Each Participating UN Organization will use the funds disbursed to it by the Administrative Agent from the UN-REDD Programme MDTF to carry out the activities for which it is responsible as set out in this document as well as for its indirect costs. The Participating UN Organizations will commence and continue to conduct operations for the UN-REDD Programme as set out in the UN-REDD MOU or as instructed by the UN-REDD Policy Board. The Participating UN Organizations will not make any commitments above the approved budgets, as amended from time to time by the Policy Board. If there is a need to exceed the budgeted amounts, the Participating UN Organization concerned will submit a supplementary budget request to the UN-REDD Policy Board, through the Technical Secretariat.

The Administrative Agent will ensure consistency of the approved Joint Programme with the applicable provisions of the Standard Administrative Arrangements (SAA) entered between donors and the Administrative Agent, and the MOU between the Participating UN Organizations and the Administrative Agent.

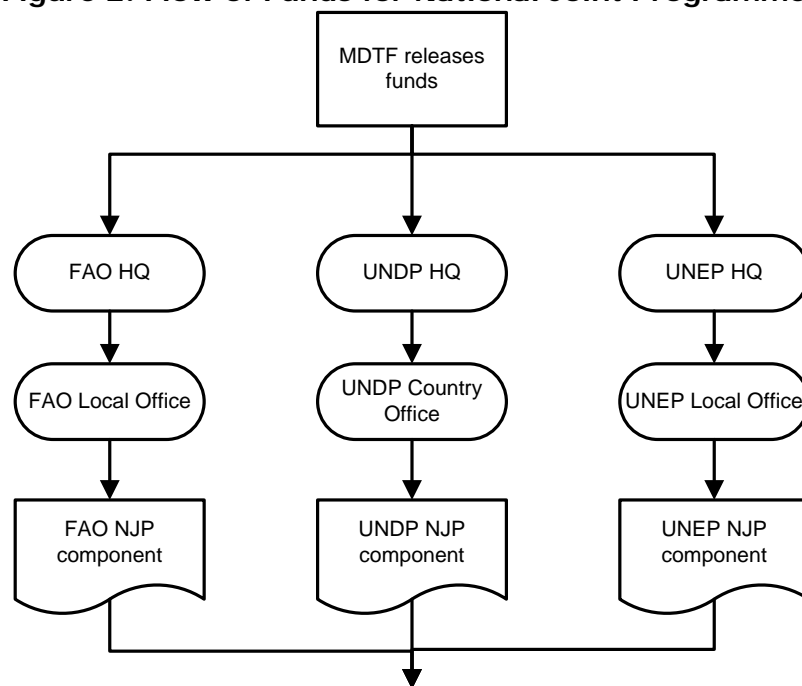
Transfer of Cash to National Implementing Partners

Funds will be released in accordance with the UN-REDD Programme Rules of Procedure. These procedures require the Technical Secretariat to submit the following to the Administrative Agent:

- Copy of the signed NJP document with the approved budget
- Submission Form, signed by the Chair of the Policy Board.

Upon receipt of the necessary documentation, the Administrative Agent shall release funds to the Participating UN Organizations as set out in Section II of the Memorandum of Understanding for the Multi-Donor Trust Fund (available at www.undp.org/mdtf/UN-REDD/overview.shtml). The Administrative Agent shall notify the Participating UN Organizations and the UN Resident Coordinator when the funds have been transferred. Each Participating UN Organization shall establish a separate ledger account for the receipt and administration of the funds disbursed to it by the Administrative Agent.

Figure 2: Flow of Funds for National Joint Programmes



The specific cash transfer modalities for the Participating UN Organizations are:

- **FAO:** the FAO local office will transfer funds to the relevant national partners on a reimbursement basis. Funds will be managed according to FAO financial rules and regulations
- **UNDP:** funds will be transferred from UNDP/BDP/EEG to the UNDP Country Office. Fund utilization will be according to the UN Harmonized Approach to Cash Transfers. The payment will take the form of “direct cash transfer”, “direct payment” or “reimbursement”. Funds will be managed in accordance with UNDP financial rules and regulations

- **UNEP:** the ROLAC office shall manage its programme funds in accordance with UNEP's financial rules and regulations. Accountable advances will be transferred to the selected partners in this Joint Programme, following the designated modalities outlined in the agreements and/or subcontracts with UNEP.

8. Monitoring, Evaluation and Reporting

Table 2: Joint Programme Monitoring Framework (JPMF)

Expected Results (Outcomes & outputs)	Indicators (with baselines & indicative timeframe)	Means of verification	Collection methods (with indicative time frame & frequency)	Responsibilities	Risks & assumptions
Outcome 1: Institutional capacity established for the coordination and efficient execution of Panama national REDD strategy					
<i>Consultations and Workshops: general model proposed.</i>	Design of the Process for Training Program Consultation	- Reports on the national Training consultations program - Press releases -Technical reports -Proposed Plan	tbd	UNEP/ANAM	- A strong national consensus is necessary - Active participation of the indigenous groups is key as well as other forest communities and NGOs - Technical assistance is needed
<i>Establish a baseline of information between sectors and interest groups in the country, with regard to the use of, and the need to conserve, the forests and their associated resources.</i>	Statistic Indicators of survey resulted from Training Program Consultation	- Reports on country consultations - Press releases -Technical reports	tbd	UNDP/ANAM	- A strong participation of different sectors is necessary - Active participation of indigenous groups is key as well as other forest communities and NGOs - Technical assistance is needed - Requires long term investments
<i>Environmental Education Workshop geared to Citizen Participation.</i>	Conduct survey at initial stage and at end of program	Statistic Reports should demonstrate effectiveness of training program	tbd	UNEP/ANAM	Under estimate the cost of program. Outcome may need more time and funds to achieve the objectives.
<i>Train a team of facilitators by experts associated with ANAM's</i>	Facilitators should be able to understand all aspects related to REDD R-Plan of	Each facilitator should give a presentation regarding to verify the knowledge of		UNEP/ANAM	Underestimate time and cost of activity and finding the right personnel for this task

<i>Environmental Monitoring Unit and Officers. Hire a team of 17 facilitators.</i>	Panama and speak the same language under REDD. Contracts for the 17 facilitator will indicate the team for these outcomes	REDD supervised by ANAM, CATHALAC, NJP and Programme Coordinator			
<i>Define the Training Plan, schedule, role of CEDESAM, CIDES, and topics by module</i>	CIDES Proposal involving CEDESAM from ANAM	Training Plan different modules	tbd	UNEP/ANAM	Underestimate cost and duration of activity
Expected Results (Outcomes & outputs)	Indicators (with baselines & indicative timeframe)	Means of verification	Collection methods (with indicative time frame & frequency)	Responsibilities	Risks & assumptions
Outcome 2: Technical capacity to monitor, measure, report and verify the reduction of emissions from the deforestation and forest degradation					
2.1. National forest inventory and network of eco-physiological permanent sampling plots (Eco-PSP)	<ul style="list-style-type: none"> - System designed (November 2009) - Field trial and training (December 2009) - Collection of data completed by September 2011 - Estimation for biomass and carbon prepared by June 2010 - Results analyzed and available by July 2012 	<ul style="list-style-type: none"> - Technical report on the design of the inventory and PSP network - Progress reports - Final report 	tbd	FAO	- Efficient institutional coordination
2.2 Forest land monitoring system	<ul style="list-style-type: none"> - System designed (November 2009) - Testing and analysis (2010) - Operational monitoring (November 2010) 	<ul style="list-style-type: none"> - Technical report on the monitoring system - Progress reports - Final report 		FAO	- Efficient institutional coordination
2.3. Reference Emissions Level scenarios	<ul style="list-style-type: none"> - By the end of 2009 produce a review of available methodologies and an evaluation of the viable methodological options for Panama 	<ul style="list-style-type: none"> - Technical report on the methods to establish R.E.L. - Progress reports - Technical report on R.E.L in Panama 	tbd	FAO	<ul style="list-style-type: none"> - Panama assigns priority and adequate resources to the process - Technical advisory services to the methodology by the stakeholders

	<ul style="list-style-type: none"> - By the end of 2010 conduct a trial based on existing data - By July 2012 establish a final R.E.L based on the new information of the inventory and monitoring system 				
2.4. Inventory system for greenhouse gases	<ul style="list-style-type: none"> - A functioning and operational National Office for Greenhouse Gases is established 	<ul style="list-style-type: none"> - Physical existence of the office - Allocation of national budget - National reports of the inventory of greenhouse gases 	tbd	FAO/UNEP/UNDP	Institutional commitment and resources allocation

Annual/Regular reviews:

Activities carried out by the Participating UN Organization shall be subject to internal and external audit as articulated in their applicable Financial Regulations and Rules. In addition, the Technical Secretariat will consult with the Participating UN Organizations on any additional specific audits or reviews that may be required, subject to the respective Financial Regulations and Rules of the Participating UN Organizations. Participating UN Organizations will provide a summary of their internal audit key findings and recommendations for consolidation by the MDTF Office and submission to the Policy Board and National REDD Committee as applicable.

The Government, particularly the Executing Agency, or Lead Implementing Partner, and the Participating UN Organizations, shall jointly conduct scheduled/annual planning and review meetings for all activities covered in the results framework, monitoring and evaluation plan and work plans covered by this Joint Programme. This will include an assessment of the risks and assumptions to determine whether they are still holding.

Evaluation:

The Policy Board will establish an Evaluation Plan which ensures that all programmes supported by the UN-REDD Programme will undertake a final evaluation, which will assess the relevance and effectiveness of the intervention, and measure the development impact of the results achieved, on the basis of the initial analysis and indicators described at the time of programme formulation. Furthermore, the Technical Secretariat from time to time shall lead reviews for programmes as necessary.

Reporting:

At the national level, the Participating UN Organizations are required to provide narrative reports on results achieved, lessons learned and the contributions made to the Joint Programme. The information shall be consolidated by the Programme Manager into a narrative report every 6 months. The Secretariat shall provide the Policy Board updates on the implementation progress of the Joint Programme every 6 months, based on information received from the Programme Manager. The UN Resident Coordinator will assist in ensuring the Participating UN Organizations at the country level provide the necessary information. The UN-REDD Coordination Group shall

also follow-up with the relevant officers and representatives of the Participating UN Organizations.

The Administrative Agent will provide regular updates on the financial status of the MDTF to the Policy Board, for review and action as appropriate.

Participating UN Organizations in receipt of UN-REDD resources will be required to provide the Administrative Agent with the following statements and reports:

- Narrative progress reports for each twelve-month period ending 31 December, to be provided no later than three months after the end of the applicable reporting period;
- Annual financial reports as of 31 December each year with respect to the funds disbursed to it from the Joint Programme Account, to be provided no later than four months after the end of the applicable reporting period;
- A final narrative report and financial report, after the completion of all Joint Programme activities financed from the UN-REDD MDTF, to be provided no later than 30 April of the year following the financial closing of Joint Programme activities;
- A final certified financial statement, to be provided no later than 30 June of the year following the financial closing of Project activities.

The Administrative Agent shall prepare consolidated narrative progress and financial reports consisting of the reports referred to above submitted by each Participating UN Organization, and shall provide those consolidated reports to the respective Resident Coordinators and subsequently to the UN-REDD Policy Board through the Secretariat.

Subsequently, in accordance with the MOU and the SAA, the Administrative Agent will submit consolidated narrative and financial reports to all UN-REDD Programme donors. Agreed standard UNDG financial and progress reporting formats will be utilised. The Administrative Agent will also submit to donors a certified annual financial statement (Source and Use of Funds).

Information given to the press, to the beneficiaries of the UN-REDD Programme, all related publicity material, official notices, reports and publications, shall acknowledge the role of the UN-REDD donors, the UN Agencies, and any other relevant parties.

Whenever possible and to the extent that it does not jeopardize the privileges and immunities of UN Agencies, and the safety and security of their staff, UN Agencies will promote donor visibility on information, project materials and at project sites, in accordance with their respective regulations, rules, policies and procedures.

9. Legal Context or Basis of Relationship

The Participating UN Organizations (FAO, UNDP and UNEP) have signed a Memorandum of Understanding (MOU) to implement the UN-REDD Collaborative Programme, which came into effect on 20th June 2008 and ends 20th June 2012.

This Joint Programme document is consistent with the cooperation/assistance agreements signed by the lead UN agencies involved in this programme with the Government of Panama. For the UNDP, this Document is pursuant to the Country Programme Action Plan and the Standard Basic Assistance Agreement (SBAA) it signed with the Government of the Panama. All provisions in the SBAA therefore apply to this document. Consistent with Article III of the SBAA, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP's property in the implementing partner's custody, rests with the implementing partner.

The implementing partner shall:

- put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried; and
- assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

The **UNDP** reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

On the part of the **FAO**, this document is consistent with the basic agreement with Government of Panama as indicated in the exchange of letters between the Government of Panama and FAO on [*insert date(s)*]. The FAO Representative shall represent the Organization in Panama, and shall be responsible within the limits of the authority delegated to him/her, for all aspects of the Organization's activities in the country. In the effective performance of his/her functions, the FAO representative shall have access to appropriate policy and planning levels of Government in the agriculture, fishery and forestry sectors of the economy, as well as, to central planning authorities. He/she shall maintain close liaison with the Government's coordinating agency for external assistance and thereby serve to keep all the appropriate Government agencies fully informed on all aspects of the policies and procedures of FAO's programme in Panama.

For **UNEP**, in line with its position as a non-resident agency with a global mandate for technical cooperation and capacity building, the signed Joint Programme document shall be the legal basis of UNEP's relation with the Government of Panama within the context of this programme. UNEP will work in close coordination with the programme management team.

The Participating UN Organizations agree to undertake all reasonable efforts to ensure that none of the funds received pursuant to UN-REDD are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by Participating UN Organizations do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this programme document.

10. Work Plans and Budget

The Policy Board may approve national Joint Programmes with budgets that identify the allocation of the programme and indirect costs to each Participating UN Organization. However, before funds may be released each Joint Programme must include a budget using the 2006 UNDG harmonized budget categories for each Participating UN Organization's portion of the programme.

The work plan and budget of this Joint Programme have been developed jointly by the three Participating UN Organizations and the Government of Panama. The work plan details the expected outcomes, outputs and activities to be carried out within the programme, the implementing partners, timeframes and planned inputs from the Participating UN Organizations. An annual work plan and budget will be produced each year for each Participating UN Organization, subsequent to the decisions of the annual/regular reviews. Each work plan will be approved by the UN-REDD Technical Secretariat and signed by the implementing partners.

Work Plan for: (Insert name of the Joint Programme/Project)

Period (Covered by the WP) ²⁰_____

²⁰ Annual Work plans cover not more than a 12-month period. However, usually at the start-up of the programme, these may cover less than one year. In both cases, the corresponding period should be specified.

JP Outcome										
UN organization-specific Annual targets	UN organization	Activities	TIME FRAME				Implementing Partner	PLANNED BUDGET		
			Q1	Q2	Q3	Q4		Source of Funds	Budget Description	Amount USD
JP Output 1:										
Training Plan: Environmental Education Workshop aimed a Civil Society	UNEP									820,000
(of UN organization 2)										
(of UN organization 3)										
JP Output 2:										
Technical capacity to monitor, measure, report and verify the reduction of emissions from the deforestation and forest degradation	FAO									4,480,000
(of UN organization 2)										
Total Planned Budget										5,300,000
Including*	Total UN organization 1									
	Total UN organization 2									
	Total UN organization 3									

* The Total Planned Budget by UN Organization should include both programme cost and indirect support cost

Signatures²¹:

UN organization(s)	Implementing Partner(s)
Replace with: <i>Name of Representative</i> <i>Signature</i> <i>Name of Organization</i> <i>Date</i>	Replace with: <i>Name of Head of Partner</i> <i>Signature</i> <i>Name of Institution</i> <i>Date</i>

²¹ When CSOs/NGOs are designated Implementing Partners, they do not sign this Work Plan. Each participating UN Organization will follow its own procedures in signing Work Plans with CSOs/NGOs.

Standard Joint Programme Budget

JOINT PROGRAMME BUDGET *

CATEGORY	INDICATIVE ITEM DESCRIPTION	UNIT COST	NUMBER OF UNITS	AMOUNT**	
1. Supplies, commodities, equipment and transport	Equipment, materials & goods, communications & audiovisual equip., IT equip., transportation, furniture	tbd	tbd		
2. Personnel (staff, consultants and travel)	International consultants, local consultants, institutional consultancy contracts, travel, contractual services - individuals, temporary assistance, overtime costs, admin support personnel, staff training development	tbd	tbd		
3. Training of counterparts	Training of government, training of NGO staff, training of CSOs, CBOs, in-service training, workshops, conferences, field site visits	tbd	tbd		
4. Contracts	Contractual services - companies, grants to institutions, subcontracts, retainers, professional services,	tbd	tbd		
5. Other direct costs	Miscellaneous expenses, hospitality, audio visual & print production costs, office supplies, premises rental, operating expenses, utilities general, communication costs				
Total Programme Costs					
Indirect Support costs***		tbd	tbd		
GRAND TOTAL **					

* This is based on the UNDG Harmonized Financial Reporting to Donors for Joint Programmes approved in 2006. Definition of the categories can be found in the instruction which is available on <http://www.undg.org/docs/9442/Explanatory-Note---Annex-D.doc>.

** The AA requires only completion of 'AMOUNT,' 'Total Programme Costs,' Indirect Support Costs,' and 'GRAND TOTAL.' The Steering Committee may require additional details which can be included in this budget.

*** Indirect support cost should be in line with the rate or range specified in the Fund TOR (or Joint Programme Document) and MOU and SAA for the particular JP. Indirect costs of the Participating Organizations recovered through programme support costs is 7%.

All other costs incurred by each Participating UN Organization in carrying out the activities for which it is responsible under the Fund will be recovered as direct costs, in accordance with the UN General Assembly resolution 62/209 (2008 Triennial Comprehensive Policy Review principle of full cost recovery).

Note: Each Participating Organization should submit their individual budget using this format, in addition to the total budget for the entire Joint Programme.

Annexes

Anexo I

Transcripción del Discurso del Sr. Sub-Administrador General de la Autoridad Nacional del Ambiente, en la escogencia del Cacique General de la Comarca Embera – Wounán.

Eduardo Reyes: Muy buenas tardes comunidad Emberá Wounán. En nombre de la Dra. Ligia Castro de Doens, ministra en Asuntos Relacionados con la Conservación del Ambiente y administradora general de la Autoridad Nacional del Ambiente (ANAM) que pide sus disculpas por no estar con ustedes hoy, pero como pueden ver ha enviado a todo su equipo técnico, incluyendo a mi persona.

Agradecemos la invitación que se nos hizo para estar presentes en esta extraordinaria jornada del día de hoy que pudimos presenciar que fue el tema de la elección del nuevo cacique. De igual manera, felicitamos a todos por ese ejercicio que se dio de pura democracia, primera vez que lo pude observar y fue una buena experiencia.

De igual forma a todos sus candidatos, especialmente al nuevo cacique, Betanio Chiquidama, con quien esperamos trabajar de manera estrecha por el beneficio de ustedes, la comunidad Emberá Wounán.

Se nos ha solicitado nuestra presencia principalmente porque entendemos que existen algunas inquietudes y que tiene que ver con los temas de los recursos naturales, el ambiente que además se encuentran dentro de su comarca.

Hoy día está todo el equipo técnico nuestro, así como mi persona y estamos aquí para contestar y aclarar varios asuntos. Quisiera empezar por uno que estaba en nuestra agenda que era el tema de cambio climático y deforestación.

Hace tres años, en el 2005, se trajo por primera vez a la discusión internacional cómo poder evitar la deforestación ya que era causante de gran contaminación en el momento que lo hacíamos. Grandes países nos acusaban que el 20 por ciento de las emisiones de gases de efecto invernadero provenían de la deforestación en países como Panamá.

Sin embargo países pequeños al recibir las acusaciones, que podían ser ciertas, también dijimos que era el 20 por ciento de la solución y es aquí donde empezamos la lucha a nivel internacional y en el 2005 en la ONU se decidió tomar este tema como un punto a tratar para ver cómo los países desarrollados ayudaban a aquellos en vías de desarrollo, como es el caso de Panamá, a detener la situación.

Han sido tres años de negociación y todavía continúan. Sin embargo quiero traer a la mesa a ustedes, algunos puntos que creo son de interés para todos y que hemos alcanzado como país.

Panamá ha sido escogido como nación piloto a nivel mundial para demostrar que la deforestación sí se puede detener. Hemos presentado estrategias pero lo más interesante es que en las estrategias, valga la redundancia, estamos contando con todas las comunidades indígenas, con ustedes.

En diciembre del año 2007, en la negociación internacional, Panamá peleó por el derecho de las comunidades indígenas internacionales, en este caso las de Panamá y que el tema de la deforestación evitada no se puede dar si no se incluía a las comunidades indígenas.

Eso motivó que en el texto negociado ustedes, las comunidades indígenas, estuvieran inmersas allí y que se les iba a tomar en cuenta. Igualmente, en este año, en julio volvimos a insistir ya que existían algunas corrientes en las que no querían tomar esto en consideración. Sin embargo el respaldo internacional fue todavía mucho mayor.

Perfecto porque ahora estamos en esta etapa, como dije ya que el país ha sido escogido como nación piloto pero para ello necesitamos hacer muchos pasos y esta mañana pude escuchar varias de las cosas que planteaban los diferentes candidatos donde se preocupaban por el tema de la deforestación.

Y definitivamente una de las que nuestra institución cree y está convencida es que hay que capacitarnos, hay que prepararnos para saber qué podemos decidir y eso es prácticamente educación.

He ahí la clave del asunto en la cual Panamá ha puesto todo su esfuerzo como propuesta y es trabajando con ustedes. Tenemos ahora mismo el deber de preparar todo el país. Y preparar quiere decir en todos los aspectos en actividades con ustedes y que decidan qué es lo que quieren hacer.

Pero a veces es difícil decidir qué hacer porque no contamos con las herramientas claras. Un ejemplo si ustedes me ponen a piraguiar en el río Chucunaque lo más seguro es que no llegue a ningún lado porque nadie me ha enseñado.

De la misma manera la institución va a impartir una serie de capacitaciones con ustedes de diferentes actividades con el objetivo que ustedes no vean el bosque como una fuente de ingresos, sino que empiecen a hacer inversiones ambientales y que resultado de esto les deje un fruto económico y puedan mejorar su calidad de vida.

He ahí el reto que tenemos ahorita mismo todos nosotros y la institución trabajará estrechamente con todas las comunidades indígenas. ¿porqué eso?. "hectárea que dejemos de deforestar es hectárea que ustedes se van a beneficiar en fondos.

Hay muchos retos ahora mismo y cómo los vamos a hacer?. De hecho ya se ha empezado en muchas áreas en el país impartiendo capacitaciones, brindándoles nuevas tecnologías y en sí un fin de acciones que de igual manera lo vamos a hacer con ustedes.

Pero también tenemos que organizarnos y trabajar seriamente. Aquí les voy a pedir el voto de confianza en la institución que ha luchado fuertemente por el beneficio de los más necesitados en este país, pero al mismo tiempo conservando para el desarrollo sostenible.

Es a donde nos queremos enfocar con ustedes con este nuevo tema que en realidad yo siento que no es un nuevo tema, es algo que está muy innato en ustedes, pero que ahora lo vamos a trabajar en conjunto por el beneficio de la mayoría de las comunidades indígenas y pueblos que viven dentro de nuestros bosques.

Yo quiero dejar esto aquí por lo pronto porque se que pueden surgir muchas preguntas. Mi persona y todo el equipo están dispuestos para contestar cualquier cosa e incluso a trabajar ya que nos comprometemos con el nuevo cacique, el señor Betanio, que nos ponemos a su disposición desde las mas altas tomas de decisiones de la institución en conjunto con todo el equipo de la regional y todo el equipo de Panamá.

Indígena Emberá: Como Emberá nosotros no estamos deforestando nuestra área pero hay un problema con los no Emberá. Están deforestando en cantidades. ¿qué se está pensando o qué está pensando la institución en relación al tema ese?. Tenemos ese problema licenciado. Me gustaría que usted nos aclarara o nos diera respuesta sobre el tema porque tenemos problemas.

Tengo entendido que la ANAM tiene una regulación de ley donde no hay que deforestar a orillas de los ríos. Pero todo eso los compañeros no lo están cumpliendo. Están devastando el bosque que da miedo. Frente a eso ¿qué respuesta me tiene licenciado?.

Eduardo Reyes: Sí muchas gracias por su pregunta y una excelente pregunta que se nos dirige a nosotros y que definitivamente son las bases que utilizamos para negociar. Déjeme ver cómo lo explico de una manera y voy a reconocer que no son las comunidades indígenas las que deforestan. Eso nuestra institución lo tiene muy bien claro. Tenemos una serie de mapas y voy a hablar claro sobre qué nos dicen estos mapas donde hoy existen bosques es donde hoy están las comunidades indígenas.

También estos mapas nos dicen que los índices económicos de pobreza y pobreza extrema están en esta área. Y aquí hay alguna confusión cuando decimos que la pobreza está relacionada a la deforestación. Completamente errado.

Sí sabemos que hay mucha presión más nuestras áreas deforestadas del país prácticamente son las áreas con niveles económicos más altos, pero obviamente han acabado con todos los recursos naturales. Y ya no podemos seguir permitiendo eso.

Pero que bonito es decir no hagas nada pero yo soy el que se va a beneficiar económicamente. Tampoco eso lo vamos a permitir. Ahora conservar nuestros bosques y evitar que se siga deforestando tiene que rendir un beneficio a las comunidades que hoy día están ahí.

Y que esas comunidades puedan hacer nuevas actividades que le redunden económicamente llámese reforestar, agroforestería, ecoturismo, en sí hay un montón de actividades que ustedes pueden beneficiarse. Pero para todo esto necesitamos fondos y es verdad.

Hay gran cantidad de dinero que se ha invertido en esta provincia, sin embargo los problemas siguen persistiendo, no los hemos resuelto. Y creemos que no los hemos resuelto porque simplemente no se les ha enseñado a vivir después que se acaba la inversión económica o sea no hemos tenido desarrollo sostenible en ninguno de los planes que hemos estado dando.

He ahí el reto. Pero el reto es ustedes, la institución y el resto de la comunidad. Hay que fortalecer todo lo que ustedes dicen porque si es cierto. Voy a tomar el dato que tenemos de 1992 al año 2000 "la rata de deforestación de Panamá andaba por el promedio de 47 mil hectáreas anual provincia de Darién y de Bocas del Toro".

Estamos ahorita mismo elaborando el nuevo mapa con año base del 2006 y nos va a indicar qué ha sucedido del 2000 al 2006. Eso definitivamente nos dice a dónde debemos enfocar nuestros recursos. Pero sin tanto mapa y sin tanta investigación sabemos que Darién y Bocas del Toro hay que reforzarlos.

Pero hay que reforzarlos en todos los aspectos: hay que reforzar nuestra institución en esa área, nuestra fiscalización, hay que reforzar el resto de las instituciones porque esta no es una sola actividad del país, de la ANAM, perdón, es una actividad del país.

Todas las instituciones del Estado vamos a entrar en este proceso porque es una estrategia que se plasmó desde las altas esferas de los tomadores de decisiones y el señor presidente, Martín Torrijos Espino quien esta semana estuvo en Naciones Unidas hablando sobre este tema.

Y que dicho sea de paso esta semana en Naciones Unidas otro país ha apostado a que Panamá lo puede hacer. Y de hecho lo podemos hacer. Hemos sido considerados el único país preparado para hacerlo. Como usted dice la pregunta ¿cómo prepararnos? ¿cómo decir todo esto?. Porque nosotros en la institución estamos contando con todos ustedes.

Ningún otro país lo contó hasta que nosotros lo dijimos. Y de hecho así va a ser. Esto implica una estrecha colaboración con sus dirigentes saber qué es lo que ustedes quieren. Como dije hay que capacitarlos primero para que ustedes entiendan y después ustedes decidan queremos hacer esto, queremos hacer lo otro.

Tenemos que darles una rama de herramientas para que ustedes las puedan tomar y así decidir. El reto es grande como dijo en la pregunta si es cierto y sabemos que hay tala ilegal.

Pero todos estos dineros van primero a enfocar la fiscalización, primer punto que tenemos que enfocar. La capacitación con ustedes consensuar que todos estemos de acuerdo en que esto es lo que queremos hacer.

Básicamente nuestra institución va a ser un ente que los va a apoyar para lograr estos objetivos. Y definitivamente no solo se va a ganar económicamente, se va a ganar en otros rubros. Vamos a tener un ambiente mucho mejor, vamos a ser menos vulnerables a los efectos del cambio climático que estoy seguro ustedes ya los están sintiendo.

Entonces nos comprometemos con ustedes a trabajar de la mano, a ir paso a paso. Ojalá pudiéramos ir más rápido pero no lo podemos hacer porque queremos que ustedes primero que todo entiendan. Si ustedes no entienden nosotros no estamos haciendo bien nuestro trabajo.

En dos o tres años tenemos que rendir cuentas internacionales. Y esos dos o tres años cuando se vayan a rendir cuentas internacionales yo espero que también las comunidades indígenas acompañen a la delegación a decir que esto fue un éxito en el país y se pudieron vencer todas esas barreras que pueden existir entre nosotros. Pero porque todos teníamos un mismo objetivo quieran detener el despilfarro de nuestros recursos naturales de una forma que nos estaba llevando al descalabro.

Eso es lo que estamos proponiendo y como bien usted dijo tenemos problemas. Sí lo reconocemos. Y ahora nos estamos preparando para que todos, porque anteriormente se pensaba y todavía se sigue pensando que es la ANAM la única que tiene que hacer eso. No. somos todos ustedes, las otras entidades del Estado y nuestra institución, pero hay que saber hacerlo. Y no quiero dejar por fuera a las empresas privadas que también tiene su rol. Y su rol es muy importante porque siempre vamos a decir, en nuestra institución: no vamos a aceptar que una empresa privada venga simplemente a ver qué beneficios saca de esto sin que ustedes obtengan beneficios.

Creo que hay muchos ejemplos que se pueden hacer las cosas correctamente y a eso es que estamos apostando. Pero también es importante que ustedes sepan que muchas ponen a nuestros funcionarios y a nuestra institución en una situación que no sabemos qué hacer.

Hay muchas personas que hablan en nombre de ustedes. Personalmente no se si están hablando en nombre de ustedes o en nombre de sus propios intereses. Eso tenemos que eliminarlo porque el día...(aplausos) que yo vea una persona, que sé que no es de una comunidad indígena hablando de sus derechos y de sus que se yo, un montón de cosas que no me hacen clic porque yo conozco realidades y se cómo viven esas personas, voy a ir en contra y es allí donde tenemos que trabajar como equipo.

Esto lo estamos hablando con todas nuestras comunidades indígenas en este país y ya se están tomando cartas en el asunto. Porque al final lo que logran estas personas o esos grupos es que ustedes no se beneficien pero ellos sí porque reciben todos los recursos del mundo que están destinados a ustedes y nunca les llegan.

Nuestra institución está peleando fuertemente nacional e internacionalmente para que esto no se de. Tenemos una buena relación con la presidenta de los grupos indígenas internacionales pero no la quiero tener yo.

El cacique, que tengo aquí a mi izquierda es el que la tiene que tener. Y vamos a ver cómo la invitamos para que venga con ustedes también. Pero para que todos estemos claro porque esa persona habla en nombre de ustedes y yo estoy de acuerdo en lo que ella habla. Lo que no estoy de acuerdo es que otra persona, que no sea de otra comunidad indígena, hable en nombre de ustedes y que simplemente nos enrede todo el asunto.

Todo lo que estamos haciendo en el tema de reducir las emisiones, provenientes de la degradación y deforestación, así como los ingresos económicos que eso genera, van a ser para las comunidades indígenas que viven en nuestros bosques y para las comunidades que viven en nuestros bosques que hoy día no tienen muchas alternativas, pero que definitivamente vamos a hacer lo imposible, trabajando juntos para crear esas capacidades que ya empiezan a dar resultado en otras regiones del país y aquí también van a dar resultado. Gracias.

Clelia Mesúa: Sí buenas tardes señor sub director de Medio Ambiente de la ANAM. En resumen quiero preguntarle a usted y a su equipo: Esta mañana yo le escuché mucha preocupación de los candidatos a Cacique General, también ayer a los candidatos a presidente del Congreso General Emberá Wounán. La inquietud que se hizo sentir es que están diciendo que existe un estudio, de parte de la ANAM donde se está procediendo a quitarle más tierra, aparte de la tierra trabajada.

Lo que yo quiero saber si la dirigencia de los candidatos a Cacique General exponían esa preocupación porque como están callados yo quiero saber porque cuando hay varias personas preocupadas por el mismo tema significa que esto puede ser preocupante para la masa y la dirigencia de la Comarca Emberá, en este caso Emberá Wounán.

Quisiera irme con la satisfacción que esto no sea cierto y que se está realizando ese tipo de estudio ¿porqué no se le solicitó tiempo, porque como que entiendo que existe un proyecto piloto para esos tipos de trabajo para que las comarcas indígenas que donde hay tierra virgen o donde aún hay árboles de 500 años me preocupa que no se esté tomando en cuenta la participación de la dirigencia de la comarca, en este caso de la Emberá Wounán porque también me imagino que los Ngobe Buglé están en la misma situación.

Domiluis Domínguez: Buenas tardes a todos y todas. Mi nombre es Domiluis Domínguez para los que no me conocen, director del Parque Nacional Darién. Quiero licenciada, decirle, enfáticamente que la información que le dieron es totalmente negativa. No hay ningún proyecto de sumarle tierras al Parque Nacional Darién, de parte de la Comarca Emberá Wounán ni en Cémaco ni en Sambú.

El proyecto que nosotros tenemos hace varios años con el Programa de Desarrollo Sostenible de Darién, que nos financió la señalización y demarcación del parque en la parte de Cémaco llega hasta la boca del Río Paca.

La boca del río Paca no toca para nada el área de traslape ni en Cémaco ni en Sambú. El traslape del Parque Nacional Darién con la Comarca ha existido desde la creación del parque en el año 1980 y la creación de la comarca unos años después ha existido ese traslape y se ha respetado, vamos a decirlo de esta forma: que el parque esté dentro de la comarca o que la parte de la comarca esté dentro del parque siempre se ha respetado ese traslape.

Ustedes no han visto un solo letrero en el área de traslape que diga "Parque Nacional Darién" ni ustedes han puesto un solo letrero en esa línea de traslape que diga "Comarca Emberá Wounán".

Entonces a cualquier persona usted puede levantarse y decirle está hablando con mentira "eso no es cierto". No existe ningún proyecto de sumarle tierras al Parque Nacional Darién que sean de la Comarca Emberá - Wounán.

Eduardo Reyes: Yo creo que queda bastante claro que eso no es cierto. Voy a decir algo más: cualquier bochinche, voy a hablar así, que se entienda por eso aquí en Metetí está la regional de la ANAM. El señor Domiluis también se encuentra en el área y pueden consultarlo con cualquier funcionario nuestro.

Vamos a trabajar estrechamente por otros programas pero queremos evitar que eso les cree confusión y preocupación por que eso lo único que hace es crear una barrera entre nosotros y simplemente dilatar lo que queremos hacer juntos, así que quiero que quede claro todo esto que estamos a la disposición para aclarar cualquier cosa.

Hoy hemos venido aquí o independientemente que no hubiéramos venido aquí y esta preocupación creo que ya la debían haber tenido, hubieran podido acercarse a nuestras oficinas y ahí darles la respuesta de una vez o si no se las daban allí también en nuestras oficinas en Panamá.

Sr. Gobernador de la Comarca: Mi pregunta ingeniero es: Se está hablando de reforestación. Para su conocimiento nosotros por nuestra ley 22 sobre nuestras tierras o fincas todas son de propiedad colectiva. Ello hace que si un comarcano en un momento no pudiera acceder a nivel de un crédito o acceder a un préstamo o hipotecar para un establecer un negocio de reforestación.

Lo que quería saber era si este programa tendría algo de recursos para ir apoyando a los comarcanos que tengan interés en reforestar de manera individual.

Eduardo Reyes: Sí gracias señor cacique y sr. Gobernador por los comentarios y las preguntas. Primero: estamos en la etapa final de la consecución de fondos. Y suficientes fondos para el taller que ustedes nos han solicitado que no va a ser un solo taller. Van a ser varios talleres, enfocados de diferentes formas, pero para que ustedes aprendan.

Ese es el primer paso y es en la etapa en que nuestra institución ha convencido al mundo que sí lo podemos hacer. Y hemos dicho que lo vamos a hacer con ustedes así que el mundo nos va a observar si es cierto que lo estamos incluyendo o no. O sea que esto ya es un compromiso que tenemos como país.

Los fondos no llegan tan rápido pero ya estamos mucho mas cerca y esperamos que este año los podamos tener. Sin embargo, nuestra institución cuenta con otros fondos, que desde ya nos podemos comprometer, una vez que nos sentemos durante la reunión con el grupo de alto nivel de ustedes a programar un taller, que creo que todavía estamos a tiempo de hacerlo antes que termine este año.

Es simplemente coordinarnos entre nosotros, muy rápidamente y nosotros enviamos funcionarios que empecemos a trabajar porque ese es el compromiso que quiero salir de aquí hoy con ustedes que vamos a trabajar en esa dirección. Y el trabajo es que vamos a prepararnos para saber qué es lo que vamos a hacer.

El tema que me pregunta el señor gobernador se va a contar con fondos para personas individuales ya que ustedes trabajan en grupos colectivos.

En sí nosotros estamos enfocando dos aspectos: evitar la deforestación. Y el simple hecho de evitar la deforestación nos puede proveer capital semilla para invertir en otras actividades que pueden ser reforestación o puede ser agroforestería o ecoturismo.

Sí tenemos que hacerlo organizadamente. Y definitivamente que el objetivo es que todos se beneficien. El capital semilla va a estar disponible para esas actividades. Posteriormente ustedes se beneficiarán económicamente de esa inversión o negocio ambiental que implementen, decidido por ustedes.

Esa es la estrategia que estamos presentando a trabajar juntos y al mismo tiempo capacitarlos para que ustedes sepan qué es lo que quieren hacer porque si no tenemos eso claro viene alguien de afuera y les dice esto es lo mejor para ti no no queremos eso.

Al final queremos que ustedes, las decisiones salgan de las bases. Y con esa comitiva que usted va a nombrar señor cacique, de trabajar en conjunto con nosotros, ya le digo antes que termine el presente año 2008, nosotros podemos dar nuestro primer taller aunque esos fondos externos no hayan llegado tenemos fondos internos y nos comprometemos a eso para trabajar ese tema.

Pero si quiero saber si es que en verdad todos estamos dispuestos a trabajar porque eso también es un compromiso de ustedes que tienen que adquirir con nosotros.

Queremos detener la deforestación, queremos reforestar, queremos mejorar nuestra calidad de vida, proteger la biodiversidad y mantener nuestra identidad cultural.

Siento que eso es lo que nos ha podido transmitir pero lo necesitamos también saber de parte de ustedes y que nuestro equipo se vaya convencido que la Comarca Emberá Wounán está dispuesta a trabajar de la mano con la ANAM para echar esto para adelante, tomando todos los compromisos que como institución y país vamos a tener con ustedes.

Prof. Marcelino Ortega: Ingeniero quisiera hacer la consulta a usted: hasta qué posibilidad si nosotros solicitamos, a través de este congreso, señor cacique con las juntas técnicas que la institución ANAM nos puede fortalecer porque nosotros realmente nos facilita el factor económico es decir no contamos con un presupuesto o no devengamos un presupuesto del Estado a nuestra institución.

Pero teniendo esa relación, como dice la ley 22 ¿qué posibilidad hay que nosotros la institución cómo nos puede fortalecer económicamente a nuestra dirección para nosotros fortalecernos como congreso para ver como nosotros podemos trabajar de acuerdo con nuestra ley y eso es lo que quiero solicitarle.

Eduardo Reyes: Muy buena pregunta. Me agrada mucho escucharla. Hay pasos que hay que tomar y definitivamente nuestra institución no es la que provee los recursos económicos para ninguna comunidad en este país. Eso está en manos del Ministerio de Economía y Finanzas (MEF). Quiero empezar por ahí.

Sin embargo, lo que hoy estamos planteando es precisamente lo que usted está pidiendo. Y que ya no tenga ningún gobierno que, en sí, darle un fondo. Ustedes se lo van a ganar.

Yo creo que este es el primer paso y yo creo que lo que nosotros podemos comprometernos es de capacitarlos correctamente con un objetivo claro que es el que he mencionado desde el recurso natural, evitar la deforestación, pero hacer inversiones que le redunden económicamente a ustedes.

Es ahí el reto que tenemos. Y ustedes no van a necesitar que si el gobierno les da o no les da el presupuesto para subsistir. Ustedes van a ser empresarios. Es adonde nos queremos enfocar.

Pero empresarios conservando el ambiente porque es lo que estamos peleando internacionalmente de los que han sido responsables bajo el principio que "el que contamina, paga" que nos provean los fondos.

Todos ustedes aquí son un gran potencial. Y si se les educa y capacita correctamente a negocios acertados, ambientalmente hablando, todos ustedes van a tener un beneficio que es el que usted me está pidiendo.

Nuestra institución lo único que puede hacer ahorita mismo es con seguir recursos para capacitarlos. Hasta ahí me lo permite la ley. No somos quienes destinamos para una oficina dentro de su comarca.

Sin embargo estos recursos también implica que tenemos que fortalecer nuestra institución y dentro de nuestra institución hay personal de la comarca.

Y va a haber mucho más personal trabajando con ustedes. Pero el reto es hacer el negocio claro. Un negocio ambiental, una inversión ambiental que sea sostenible en el tiempo. Es donde estamos apostando.

Creo que tenemos una gran oportunidad. No tengo la varita mágica para resolver exactamente su preocupación. Sin embargo, sí creemos que tenemos la estrategia que queremos trabajar en conjunto con ustedes.

No es una estrategia que se formuló en las oficinas de la ANAM en Panamá y se les viene a imponer. No. Lo que se formuló en Panamá es conseguir los fondos para capacitarlos y que ustedes decidan lo que quieren hacer.

Y que eso se pueda negociar y apoyarlos a ustedes a negociar correctamente. Ahí tenemos un reto.

Y si todos caminamos de la mano bien armoniosamente, yo creo que en un término de tres o cuatro años esta comunidad puede ser completamente diferente, una comunidad muy agradable pero puede ser mucho mejor, igual que toda la comarca.

Pero necesitamos trabajar en conjunto. Necesitamos que ustedes entiendan qué es lo que se está haciendo para que el cacique lo pueda transmitir a las bases y ustedes tomen las decisiones. Darles las herramientas y que esas herramientas redunden, posteriormente, en esos ingresos económicos que ustedes esperan para el beneficio de la comunidad.

Eso es lo que les puedo transmitir ahora mismo y creo que no puedo decir mas nada sobre este tema.

Indígena Emberá: Los proyectos que vienen son para todas las comunidades o para alguien en especial?

Eduardo Reyes: El programa es para todo el país. Y ustedes son parte de ese programa, con énfasis, principalmente, donde tenemos nuestros bosques. ¿quiénes son los principales habitantes de nuestros bosques?. Las comunidades indígenas.

Hay otras comunidades también que no son indígenas. Vamos a trabajar también con ellas. Pero el programa implica trabajar con ustedes a nivel nacional. Y sí lo vamos a hacer a nivel nacional y para eso estamos haciendo un presupuesto bastante honoroso que es el que vamos a discutir prontamente, primero para capacitarlos y después de capacitarlos ustedes estén preparados a negociarlo.

No va a ser conmigo con quien lo van a negociar. Pero si no les damos las herramientas para que ustedes sepan negociar cualquiera puede enredarlos.

Siempre van a poder contar con nosotros como institución tengan la plena seguridad de eso.

El programa es a nivel nacional y si nuestra institución trabaja a nivel nacional no solo a nivel de una comarca. Y por eso el reto es con todos, con todos los que querramos trabajar.

Esperamos y confiamos que todo el país pueda trabajar en conjunto con nosotros. No lo sabemos todavía. Y es parte de lo que ya empezamos a hacer. Ahora estamos aquí con ustedes.

Ya hemos hecho eso en otras comarcas. Todo el mundo está muy ansioso, todo el mundo quiere cooperar pero sabemos que también van a haber bastantes retos.

Y esos son los retos que tenemos que ver como los vamos a superar para el éxito de este trabajo. Pero es un trabajo conjunto de todos.

Señor Leonidas Cunapia: Me alegro que los funcionarios de la ANAM estén aquí presentes en este congreso. Nosotros como raza Emberá, existentes desde años antes que llegaran los europeos al istmo hemos sido conservadores de la naturaleza.

Pero me preocupa cuando me dicen que nosotros tenemos que tomar un seminario. Seminario está bien. Pero como que nosotros somos los que estamos destruyendo el bosque. No licenciado.

Tenemos vecinos, que no son Emberá que son los que están destruyendo el bosque. Le agradecemos al Gobierno Nacional que hay que resaltar qué vamos a hacer con aquellas personas que están devastando miles de hectáreas. Acuérdense señores que nosotros aquí somos y seguiremos siendo defensores de nuestros ríos, nuestros bosques, nuestro ambiente.

Por ahí yo oigo que Panamá es puente del mundo. Sin embargo las comarcas, las reservas de la comarca son pulmón del mundo señores. Pulmón del mundo porque Darién si hablamos, geográficamente, ya está acabando con el bosque.

Me gustaría que el licenciado tomara en cuenta a la comarca Emberá. Y el mes pasado cuando una televisión allá en la montaña cuando ví en un programa que la licenciada Ligia Castro estaba en Barcelona (sic) representando a Panamá.

Pero me gustaría que nos tomaran en cuenta ya que los conservadores de verdad somos los Emberá.

Eduardo Reyes: Gracias por su comentario y muy acertado lo que acaba de decir.

Nosotros reconocemos y voy a hablar incluso en nombre de la Dra. Ligia Castro, que cada vez que ella da un discurso a nivel internacional siempre menciona a nuestras comunidades indígenas como conservadores de nuestros bosques.

No tenga la menor duda que eso es así. Segundo su comentario es muy acertado en el tema que ustedes han sido, por años y años, los que han preservado esta naturaleza y son entes externos los que en realidad ejercen presión.

No hay la menor duda que ha sido así. Pero hay que prepararnos para que eso no siga pasando.

Y es ahí donde me enfoco a los diferentes tipos de seminarios y talleres. ¿cuál será la herramienta más efectiva?. Ahorita mismo no la se porque esa herramienta tiene que salir de la decisión de todos.

Y definitivamente nuestra institución tiene que mejorar su fiscalización que también tenemos que capacitarnos. No quiero que tomen que son solo ustedes los que vamos a capacitar.

La capacitación empieza desde nuestra institución a todo el país porque todos la necesitamos. Ustedes van a necesitar una diferente a la que nuestros funcionarios.

Vamos a necesitar, de igual manera, mejorar todos los sistemas de fiscalización que tenemos porque no son los mejores.

Y lo que usted menciona es muy cierto. Hay que ver como podemos detener eso pero en beneficio de ustedes. Pero también tenemos que resolver esa situación.

Como usted mismo lo menciona, yo puedo decir: el reto es grande. Que todos somos panameños también y entonces como panameños podemos resolver esta situación pero que nadie los deje por fuera a ustedes. Es a donde me quiero enfocar porque si tenemos que trabajar en conjunto ustedes, los que están afuera, nuestra institución y las otras instituciones a resolver, como hermanos que somos, como panameños que somos, esto por un problema que tenemos.

Ustedes son los que viven aquí ahorita mismo. Y no queremos que en veinte, treinta o cuarenta años ustedes se vean desplazados porque aquí ya no exista el bosque. Si no lo trabajamos en conjunto jamás lograremos eso. Y estamos a tiempo, como usted lo acaba de mencionar, Darién es un pulmón del mundo y así lo queremos mantener, incluso mejorarlo porque ya también está bastante afectado por muchas cosas.

Así que tome eso como un reto que tenemos todos y cuente nuevamente que es a lo que nos estamos enfocando como institución, como país a trabajar en conjunto.

Francisco Agapí: Nuestra preocupación es el aumento del porcentaje que cobra la ANAM hacia esta población. Lamentablemente la mayor parte de la tajada se la llevan y estamos hablando del desarrollo de las comunidades del pueblo indígena.

No hay que echarle la culpa a aquellos que no son indígenas. Yo voy a responder de esta forma. Estamos hablando de la deforestación, que somos conservacionistas pero a veces hay que dejar esa palabra entre comillas. ¿saben porqué?. Chucunaque ya no es el mismo Chucunaque que veíamos hace veinte años atrás porque nosotros mismos estamos deforestando, nosotros mismos estamos talando indiscriminadamente.

Señores reflexionemos. De aquí hacia fuera debemos luchar contra este gente que no quieren apoyarnos.

Eduardo Reyes: Muchas gracias. La lucha continúa. Nuestra institución no pretende enseñarles a ninguno de ustedes como conservar el bosque. Como tal vez muchos de ustedes lo han expresado, ustedes lo han conservado por muchos años. Sin embargo creo no estar equivocado, ustedes no se han beneficiado de esta conservación.

Yo creo que eso sí es una realidad. Y es ahí donde está nuestro reto de cómo beneficiarnos de esa conservación y al mismo tiempo hacer otras actividades e impedir que otros hagan cosas que van en contra a lo que ustedes tienen por naturaleza y que ustedes mismos dicen que son los conservacionistas del bosque.

Pero entre comunidad y comunidad hay de todo como muy bien dijo el compañero que sencillamente tenemos que cambiar nuestras hábitos. Y muchos de nosotros y eso hay que reconocerlo.

Yo empecé hablando y dije que, la mayoría de nuestros bosques, que tenemos hoy día en Panamá es donde están nuestras comunidades indígenas.

Y también dije que los índices económicos más bajos del país también están donde se encuentran nuestros bosques y las comunidades indígenas. Nadie se ha beneficiado de eso. Sí se han beneficiado los que lo han deforestado.

Ahora el reto es todo lo contrario: beneficiarnos porque no se deforesten y que ese beneficio llegue a ustedes.

Y como dije hay muchos retos. Grandes retos entre nosotros. El problema no es sencillo, es bastante complejo. Pero ¿cómo resolverlos si ustedes no tienen todas las herramientas de juicio claras para que tomen sus propias decisiones?.

Nosotros no hemos venido aquí a imponer ni a decir que esta es la propuesta de un proyecto. Hemos venido a presentársela para que ustedes la vayan conociendo. Y dentro de lo que es conociendo, capacitarlos y entenderla correctamente que eso es parte de preparar al país y de ahí viene otra fase de implementar actividades.

No podemos implementar nada correcto si no tienen claro lo que estamos hablando. Y es en lo que me quiero enfocar.

No quiero que sientan que nos estamos imponiendo porque no lo estamos haciendo.

Y como bien lo han dicho ustedes son conservacionistas por naturaleza. Pero también es una realidad que por eso no se han beneficiado.

La propuesta queremos presentarla para que se analice y estudie. Que no es un análisis de un día va a ser de meses, debatiendo entre ustedes, entre todos para que al final digamos: esto es lo que queremos o simplemente no nos interesa.

No estamos creyendo que todo el país está interesado. Habrá quienes digan "no me interesa porque me beneficio más cortando el bosque" eso se lo dejo a reflexión.

En cuanto a las tarifas que se cobran en la ANAM, que pueden ser bastante altas, eso no lo tenemos bastante claro pero se están analizando. Sin embargo, con tarifas altas tenemos una gran deforestación.

Si tenemos tarifas más bajas no quiero imaginármelo. Pero si estoy seguro que podemos lograr todos algo beneficioso para el bien común de todos nosotros.

Les invito a que nos visiten y conversar con el director de Forestal porque ese es un tema que hoy en día estamos discutiendo.

Voy a traer un ejemplo de un ejercicio que hemos podido hacer a nivel nacional y podremos decir que la persona que tiene un bosque o una propiedad que contiene un bosque al deforestarla, se beneficia de 40 a 80 dólares por hectárea. Y una vez que ya eso se deforesta no hay más ingresos.

Aquí lo que estamos proponiendo es otro tipo de actividad económica que el beneficio sea de alrededor de cuatrocientos, quinientos o quizás mil dólares por hectárea y que sea sostenible en el tiempo.

Este es el reto que tenemos. Nuevamente les doy las gracias por darnos esta oportunidad, por invitarnos. Una vez más nos ponemos a su disposición para aclarar sus dudas.

Esto puede ir tan rápido como querramos todos. Hasta que ustedes no lo tengan claro, simplemente no se va a avanzar más allá porque esta es una etapa a la que tenemos que llegar.

Preparar el país, significa prepararlos a todos ustedes y es la etapa en la que vamos a empezar a trabajar.

Las decisiones después de estar preparados y que todo el mundo tenga claro de qué se está hablando, las decisiones vendrán después y entonces dirán: "no me interesa gracias por todo el esfuerzo". Otros dirán "sí me interesa" y así sucesivamente.

El momento en que eso va pasando no es ahora y no quiero causarles confusión. Solo simplemente quiero decirles que dennos la oportunidad de prepararnos porque aquí hay que prepararse todos.

Nosotros también nos estamos preparando, incluyendo nuestra institución, que incluso ustedes saben mucho mas del tema que ellos mismos en nuestra institución.

Y es parte de lo que hay que capacitarnos, divulgar, así como discutir entre nosotros y que al final sea el bien común el que prevalezca para lograr los objetivos que nos hemos trazado, que creemos son en beneficio de todos nosotros.

En nombre de la Dra. Ligia Castro, que nuevamente pido disculpas que no pudo estar aquí con nosotros pero le hubiera gustado estar, le agradecemos el tiempo que nos brindaron y esperamos colaborar con ustedes.

De igual forma me comprometí a que tuviéramos un taller, pero no es solo comprometerme yo también hay una dirigencia de alto nivel de ustedes para coordinar estas acciones y ver las fechas más apropiadas para que empecemos ya a trabajar. De hecho yo siento que desde hoy lo empezamos a hacer.

Muchas de sus interrogantes son las cosas que hay que aclarar y decidir. Las decisiones son suyas vuelvo e insisto, no son nuestras.

Nuestra función es comunicarnos ustedes decidirán cuando tengan todas las herramientas. Nos ponemos a la disposición y que se nos comunique esa resolución lo más pronto posible y poder coordinarnos.

Nuestra regional está aquí en Metetí. La coordinación puede empezar allí y de ahí directamente con el equipo que está aquí y que trabaja en otras cosas más.

Son muchos los retos que tenemos en materia ambiental. Pero no podemos enfocarnos a todos los retos sin saber que ustedes están convencidos de lo que hay que hacer y que sean ustedes los que se beneficien, no sean otros los que se beneficien.

Muchas gracias a toda la directiva de esta mesa por habernos invitado y estamos nuevamente a su disposición.

Muchas gracias





Anexo II.

Trascripción de participación del Ing. Eduardo Reyes en reunión con el Congreso General Kuna.

Eduardo Reyes: Ante todo muy buenos días. Antes de empezar a presentarnos cada uno de nosotros quisiera agradecerle a don Gilberto Arias, Cacique General de la Comarca Kuna Yala y en nombre de la Dra. Ligia Castro, ministra en Asuntos Relacionados con la Conservación del Ambiente y administradora general quien me ha designado para que viniera a conversar con ustedes de muchos temas de interés que hoy, tanto las comunidades de Kuna Yala como nosotros de la ANAM, nos preocupa.

Principalmente queremos ver cómo lo vamos a trabajar en conjunto para poder lograr los objetivos que nos competen.

Mi nombre es Eduardo Reyes, sub administrador general de la ANAM y he venido con un equipo y creo es nuestra primera reunión de alto nivel para intercambiar un poco más de ideas, conocer sus inquietudes y muchas cosas que están sucediendo que definitivamente estamos convencidos que ustedes deben conocer.

Voy a introducir el resto de la delegación: Jorge García, de la Dirección de Áreas Protegidas, Raúl Gutiérrez del Departamento de Manejo Forestal, Raúl Rubio, de la Oficina de Relaciones Públicas, Efraín Lozano de la Dirección de Fomento de la Cultura Ambiental y Abril Méndez de la Unidad de Cambio Climático y Desertificación.

Quiero nuevamente dar las gracias por la invitación que nos han cursado. Voy a ser bastante sincero y me arrepiento de no haber podido venir mucho antes pero siento que nunca es tarde para compartir con ustedes amigos muchas cosas que nos preocupan.

Como dije inicialmente si no trabajamos en equipo no vamos a lograr los objetivos que ustedes tienen y que nosotros tenemos.

Parto de decir que don Gilberto Arias nos visitó a nuestras oficinas y manifestó sus preocupaciones en nombre de su comunidad, muchas preocupaciones válidas.

Como dije muchas preocupaciones válidas. Y como pudieron ver parte del equipo prácticamente hay representantes de cada tema.

Con esta reunión vamos a ver cómo vamos a funcionar entre nosotros de una manera más efectiva para poder adaptarnos a muchos problemas que se nos vienen encima y al mismo tiempo beneficiarnos con muchas oportunidades que también andan por ahí y que nuestra institución está negociando para que ustedes puedan recibir esos beneficios.

Viajando hacia acá ya cuando tomamos la carretera, una carretera nueva que está rehabilitada por decirlo así, de alguna manera u otra puede traer mucho progreso pero de igual manera puede traernos algunos desastres.

Cuando me refiero a desastres me refiero a desastres ambientales en una reserva Narganá que si no la cuidamos entre todos estamos abriendo simplemente una brecha para que se deforeste.

Estoy seguro que tanto a ustedes como a nosotros nos preocupa esta posibilidad que es uno de los primeros puntos que quisiera conversar con ustedes: de la deforestación.

Otero punto importante es que ya cuando llegamos aquí a la costa, toamos el bote y nos vinimos acá es el hecho que sabíamos que una cosa era verlo en fotografías y otra vivirlo.

La amenaza que tienen muchas de estas islas con el tema del cambio climático, amenaza que creo que ya ustedes están viviendo, se ha dicho que no son amenazas, sino simplemente hechos.

Y vamos a ver cómo nos podemos adaptar ante esta situación porque definitivamente el nivel del mar va a subir un poquito, sobre todo en aquellas comunidades o islas pequeñas básicamente a nivel del mar y van a sufrir consecuencias por lo que ustedes están en esas zonas que nosotros llamamos vulnerables.

Algunas de las propuestas para trabajar y ver cómo vamos a enfrentar los problemas que he mencionado, dos problemas muy serios que necesitamos ver cómo los controlamos lo más rápido posible.

Con esto no quiero decir que hay muchas otras situaciones que estoy seguro que ustedes también querrán conversar con nosotros.

Pero quiero aprovechar lo más que podamos el tiempo de nosotros, así como aquello que podamos considerar amenazas para ustedes.

Y esas amenazas están latentes aquí ahorita mismo por lo que necesitamos ver la forma en que las vamos a corregir.

Necesitamos conocer sus inquietudes pero ustedes nos lo van a contar a mí y al resto del equipo. Ustedes pueden tener problemas ambientales como manejo de los desechos sólidos, presiones no controladas y otros.

De igual forma ustedes nos van a manifestar todo eso y definitivamente que esto que vamos a tratar es una estrategia en conjunto y lograr, como dije, los objetivos que son los que tenemos en común para que ustedes se beneficien.

Por último quiero también conversar acerca de la participación del cacique Gilberto Arias quien por primera vez nos va a acompañar a la Convención de Naciones Unidas sobre Cambio Climático.

Para nosotros es un honor que el pueda asistir como parte de la delegación y también hablaremos qué se espera concluir en esta convención por lo que es muy importante la asistencia del cacique general, Gilberto Arias.

La convención comienza el primero de diciembre y termina el 12 en la ciudad de Postnan, Polonia en una reunión donde se toman muchas decisiones sobre todo en nombre de ustedes las comunidades indígenas.

Por ello sentimos que a veces ustedes no han sido consultados en esas decisiones. Es por eso que creemos muy importante que el asista y también conversaremos sobre eso.

El mapa que pueden ver aquí lo que se ve mas verde es lo que nos queda de áreas boscosas... creo que es el 40 por ciento de lo que tenía y es lo que a nosotros nos preocupa.

Del año 1992 al 2000 se perdían aproximadamente 47 mil hectáreas por año.

Como principal reto, como institución, la Autoridad Nacional del Ambiente (ANAM) en todo el país es velar por la conservación de los recursos naturales.

Existen una gran cantidad de bosques y en ella habitan gran cantidad de comunidades indígenas por lo que definitivamente tenemos que conservar esos bosques y detener la deforestación.

Esta mancha amarilla (Ing. Reyes mostrando mapa de la cobertura boscosa a los miembros del Congreso General) está presionando hacia acá, hacia su comarca.

Está presionando fuertemente. Pueden ver algunas áreas que ya tienen una mancha amarilla por lo que es muy posible o esta de acá en la que se practica agricultura de subsistencia. Definitivamente también necesitamos comer.

Pero si no mejoramos nuestras técnicas ello va a ir creciendo en esta dirección y van a desaparecer.

Ahora no quiero decir que son ustedes y que ello quede claro porque en el concepto nuestro de ANAM no son las comunidades indígenas las que deforestan. Es un estilo de vida de despilfarro que hemos tenido por muchos lo que ha originado esta situación.

En otro mapa que veremos se puede notar de forma mas clara.

Puede que esto se mueva un poco más para acá y se abra poquito a poquito y ok hay necesidades pero también sabemos cómo suplir esas necesidades sin tener que deforestar.

Este es el reto que tenemos todos nosotros ahora mismo. ¿porqué tenemos ese reto?. Y esto me lleva quizás al último punto aunque voy a hacer un poquito de historia.

Resulta que hay una Convención Marco de Naciones Unidas sobre Cambio Climático que se entregó en el año 1992 en la Cumbre de Río de Janeiro donde se crearon tres convenciones: cambio climático, biodiversidad y desertificación.

Las tres convenciones empezaron a trabajar una protegiendo la biodiversidad, como se que muchos de ustedes lo hacen. Nuestro compañero Jorge García, el trabaja en áreas Protegidas, conservando la biodiversidad.

Otra persona de Desertificación que tiene que ver con los suelos que ya después que lo deforestaron y trabajaron con malas técnicas no sirven para mas nada.

La licenciada Abril Méndez también trabaja en esa parte de Desertificación y otra de Cambio Climático que tiene que ver con muchas malas prácticas de los países desarrollados.

Nosotros en nuestra institución hemos tratado de unir las tres convenciones y trabajar en conjunto.

Ahora la Unidad de Cambio Climático es una sola con Desertificación y aunque este tema que vamos a hablar es de cambio climático, se va a manejar en áreas protegidas y en biodiversidad.

Desde 1992 todos los países se reúnen mucho a tocar todos estos temas.

Hace tres años (en el 2005) se trajo el tema de evitar la deforestación. Y ¿porqué se trajo el tema de evitar la deforestación? Porque como dije los países desarrollados, con el uso del combustible fósil, malas prácticas, deforestación han aumentado emisiones de gases de efecto invernadero, unos gases que son dañinos a la atmósfera y que de una manera sencilla ¿qué dan como resultado? Pues que el resultado que ello está dando en la práctica es muchas tormentas, huracanes y ascenso del nivel medio del mar.

Hemos estado luchando, en una batalla bastante difícil con los países responsables.

Estoy seguro que muchos de ustedes habrán visto o entenderán que ¿porqué no se nos paga por conservar?.

Es algo interesante y algo en que todos podemos estar de acuerdo. Sin embargo los que tienen que pagar parecen no estar de acuerdo.

Es allí donde viene lo que se conoce como negociaciones en estas convenciones. La próxima será del 1 al 12 de diciembre en Polonia.

Ellos dicen, volviendo al tema de la deforestación, que el problema de la deforestación es responsable el 20 por ciento de estos gases que afectan la atmósfera.

Nosotros pudimos aceptar esa realidad. Y cuando hablo de nosotros me refiero a todos los países que hoy día tenemos bosques... estamos en el trópico aproximadamente.

Si bien eso puede ser cierto, que no lo negamos, también dijimos "aceptamos esa culpa" pero también somos el 20 por ciento de la solución.

Como decía es el 20 por ciento de la solución. Definitivamente que nosotros empezamos a negociar eso y además vamos a negociar otras.

Definitivamente hay mucho que hacer en nuestros países. Queremos en realidad controlar el tema del calentamiento global y ahí ustedes tienen un poster que le suministramos nosotros acerca de una isla que está muy vulnerable.

Entonces aquí empieza todo hace tres años.

En el 2005 se trae este tema para negociarlo nuevamente. Voy a reconocer a dos países: Papua Nueva Guinea, en el pacífico sur del otro lado del mundo y Costa Rica en Centroamérica, país vecino trajeron el tema a la negociación y una vez Panamá apoyó esa idea para empezar toda esta ardua batalla.

Luego de ahí nos incorporamos a esto porque ya el país, a través de nuestra institución, tenía una estrategia que la llamábamos "Conservación para el Desarrollo Sostenible".

Ello no era solo con ustedes, sino con todas las comunidades. Para nosotros eso no era difícil hacerlo porque con el tema dentro de la negociación o fuera de ella, ya nos íbamos dividiendo como país ante este objetivo.

Hemos actuado muy agresivamente en el tema logrando ubicarnos como un país fuerte y potencial para recibir fondos y prepararnos todos para esta odisea.

Hoy día somos considerados uno de los países más preparados para demostrar que sí podemos detener la deforestación aplicando una estrategia que involucre a las comunidades que viven en nuestros bosques y a los indígenas.

Es allí donde nos encontramos y el mundo nos mira. Panamá, un país muy pequeñito que podemos tener todos los problemas del mundo pero sin embargo hemos apostado que podemos detener la deforestación en todo su territorio nacional y al mismo tiempo - porque nosotros somos los que vamos a hacer el esfuerzo - y yo hago esto diciendo ¿qué me van a dar a cambio?.

Como país vamos a invertir en nuestras comunidades y ustedes ya están invirtiendo pero esto tiene un precio.

Y lo llevo al término de que no nos pagan por conservar tenemos que verlo de esa manera, aunque la estrategia no esté en esa forma.

No que ahora vamos a ver cómo detenemos la deforestación que lleva un ritmo y eso que nosotros evitemos deforestar vamos a cobrarlo para gastárnoslo en cosas sin valor y no en una sola persona ni para el resto.

Es crear un fondo para todos. Y ese fondo lo que trata es de capital semilla. Hay muchas ideas que ustedes tienen de negocios e inversiones ambientales. Porque el momento en que a mí me dan diez dólares y no los se utilizar me los gasté y chao y adiós.

A mí me dan o me enseñan a hacer una inversión de un negocio y en este caso tiene que ser un negocio ambiental que eso me redunde, sea sostenible en el tiempo y me de cada cierto tiempo o x años cinco dólares... diez dólares entonces sí.

Es ese el reto que tenemos ahorita todos nosotros para detener la deforestación.

Ahí es entonces donde nos encontramos.

Ustedes habrán oído de un proyecto que se llama "Corredor Biológico Mesoamericano del Atlántico Panameño" donde uno de sus colegas o paisanos, el señor Atencio López trabaja. Este proyecto tiene algo muy interesante y trabaja con las comunidades de las bases para arriba. La institución los ayuda a capacitarse, a que aprendan varias formas de hacer cosas en materia ambiental o actividades.

Los ayuda a organizarse. Ustedes después le piden qué es lo que quieren hacer pero se les da las herramientas, el conocimiento para que ustedes tomen sus propias decisiones no que sea la institución las que las tome por ustedes.

Para eso tenemos los planes y las dinámicas que aplicar. Existen 15 proyectos en la Comarca Kuna Yala en este estilo y creo que es el área que mas se ha beneficiado a este proyecto que cariñosamente le llamamos CBMAP.

Ese es el modelo, modelo que también vamos a construir para detener la deforestación, es aprender a hacer cosas que nos vayan a crear un tipo de ingreso, ingreso que nos quede y que van a ayudar a conservar nuestros bosques.

Ahora para conocer un poquito mas del modelo y vamos a explicarles un poquito mejor cómo funciona para aquellos que no lo conocen.

Entonces eso es solo una fase. Pero detener la deforestación implica tener controles aquí, allá por todos lados. Y el trabajo para eso no es fácil.

Ello implica mucho sacrificio de parte de todos nosotros y es allí donde nos vamos a enfocar pero para eso prácticamente cuando veníamos para acá escuchábamos algunas posibilidades que se necesitan ejemplos de controles.

Este tipo de acciones, que son muy importantes para evitar todo tipo de tráfico ilegal de cualquier cosa llámese biodiversidad, un árbol o lo que sea y es ahí donde necesitamos conocer bien las estrategias que debemos implementar para poder ser efectivos.

No somos nosotros los que conocemos eso, son ustedes los que saben. Nosotros personalmente desconocemos cuál es la manera más efectiva y el personal de nuestra institución es el encargado de gestionar a ver cómo vamos a buscar los fondos y los medios para implementar acciones efectivas para que ello no suceda.

Se trata el tema de ver cómo vamos a evitar la deforestación en una estrategia que vamos a montar junto con ustedes.

Hoy definitivamente no vamos a discutir los detalles ya que esta es nuestra primera reunión de muchas otras más para ver como vamos a implementar algo que funcione.

Quiero enseñarles este mapa y porqué es importante todo esto. El mapa de Panamá. Ustedes están en esta zona de por acá la comarca... todo esto juntito es la mancha urbana, la mancha donde se están haciendo proyectos en el país.

En la ciudad de Panamá es donde hay mayor concentración, Colón y muy pocos por acá.

Y ustedes dirán "bueno nosotros ¿qué tenemos que ver con eso?" y resulta que todo esto ejerce presión sobre nuestros bosques.

Y nosotros lo que dijimos acá, porque yo vivo acá, tenemos que ver cómo hacemos para que mi estilo de vida no afecte el estilo de vida de mi vecino.

Si yo quiero mejorar mi estilo de vida no tengo que sacrificar el estilo de vida de mi vecino debemos buscar una manera. Y es por ello que debemos trabajar en equipo.

Pero esto nos preocupa ya que poco a poco ello se va expandiendo y expandiendo. Las leyes existen y todo existe lo que hay es poder implementarlas correctamente.

Si voy a decir algo en la cual como sub administrador me siento muy orgulloso de la institución que tengo a cargo y es que la batalla la empezamos a ganar pero requiere un sacrificio de todos.

Muchas peleas, muchas situaciones que ustedes que conocen el pulpo que tiene tentáculos por todos lados y la ANAM es el centro y todo el mundo nos jala por todos lados, todo el mundo viendo sus intereses.

Nosotros hemos peleado y seguiremos luchando, la institución quedará luchando porque hoy estamos nosotros y mañana estarán otros por lo que cualquier cosa que se haga en esta área no puede afectar a esta zona de allá, de hecho tiene que beneficiarlos.

Los mecanismos que estamos creando, que ya están y son para cumplirlos. Entonces eso quiero que lo tengamos claro porque es allí donde nos estamos enfocando y es allí donde quiero por ejemplo ya terminar el tema de la deforestación porque se que van a surgir muchas preguntas de parte de ustedes.

El punto que sigue va a ser adaptación y porque el tema de la deforestación influye en el tema de la adaptación.

Ahora paso al otro punto que es el del nivel medio del mar que poco a poco está subiendo.

Todas estas islas están muy vulnerables. Escuché que las islas fueron afectadas por las tormentas. Entonces como bien explicábamos lo que hagamos en otros lugares no quiere decir que a ustedes no los afecta.

Esto que ustedes están viviendo ahorita mismo ustedes no son los responsables.

Los grandes países han tenido muy malas prácticas, se han vuelto encima locos, se están derritiendo los casquetes polares, el polo norte nosotros, digo nosotros como país hemos deforestado bastante y los resultados son que los niveles del mar comienzan a subir poco a poco.

Pero ello implica que este poco a poco que tendremos tormentas, que de repente todos estamos bajo agua es aquí la relación entre una acción de evitar la deforestación y al mismo tiempo poder nosotros analizar como nos vamos a adaptar o a hacer menos vulnerables de estos efectos que ya ustedes los están sintiendo.

Ahí es que tenemos que ver cómo prepararnos para eso que se nos viene encima y que muchas veces no sabemos cómo se nos viene encima y tomamos acciones que no son las mejores.

Y escuchaba de una comunidad que ya está pensando mudarse a tierra firme y me hablaban de más de 3 mil personas. Y había otras que no se de cuántas personas estamos hablando.

Ellos deben mudarse porque son vulnerables ante el fenómeno y todo lo que está pasando.

Pero cómo sabemos que donde nos vamos a mudar no va a ser vulnerable también?.

Bueno es ahí donde quiero comprometerme o comprometer a la institución a saber cómo podemos armar un estudio más claro de esta realidad que sucede hoy en día y que llamamos un proyecto de adaptación.

Ya para nosotros es preocupante que ustedes estén pensando mudarse a tierra firme. No todo es mudarse por mudarse sino a dónde van a mudarse y que otras islas van a estar en esa situación.

Entonces es aquí donde vamos a tener que colaborar pero al mismo tiempo necesitamos evitar muchas cosas que están pasando. Ese es otro reto que vamos a encaminarnos a resolver porque para nosotros es una región que ya está viviendo estos efectos y que son vulnerables si no tomamos acciones tempranas claras.

Pero estas acciones significan entender lo que está pasando. Pero entender es muy importante desde la perspectiva, no de las comunidades pero ustedes en ello tienen muchos conocimientos.

No estoy del todo seguro que podamos cubrir todas las islas. Tal vez podamos cubrir algunas áreas y buscar en tierra firme mejores sitios. Pero al buscar en tierra firme también quiere decir que vamos a ejercer presión sobre los bosques y a ver como se coordina toda esta situación.

El punto es que para hacer estas cosas debe haber coordinación y que lío contar con la ANAM cuando tenemos acá la administración regional pero la ANAM tiene un millón de problemas y nos halan por todos lados.

Pero es aquí donde vamos a empezar a trabajar pero primero que todo es decisión de ustedes. Nosotros estamos es negociando posibilidades que van a beneficiarlos.

Esto va a generar y esta es nuestra primera visita pero no la última una serie de talleres con ustedes.

Par poder evacuar se debe hacer el ordenamiento del territorio algo que suena muy bonito pero es algo difícil y complejo por lo que es aquí donde necesitamos cooperar.

Nosotros le vamos a brindar algunas herramientas pero estas herramientas mínimas que no son 3 mil personas las que van a ir a tierra firme que cuando esa comunidad se levante se encuentren bien.

También que ustedes se puedan preparar para que estas personas no ejerzan presión a los bosques. Pero para eso se requiere de fondos también los que nosotros lograríamos conseguir.

Esa es la estrategia que queremos hacer con ustedes por lo que este es un primer conversatorio y después nos vamos a ir mas al detalle con nuestro personal, personal que vendrá de otras áreas.

Pero lo que si queremos es que las mas altas autoridades tradicionales tengan claridad de lo que está pasando y que sean sus decisiones.

Nos molesta cuando alguien habla en nombre de ustedes y escucho otras cosas, específicamente aquí.

Yo espero que si ustedes le dan ese permiso a ellos me gustaría conocerlos.

Si ese permiso no lo tienen entonces tenemos un problema. Hay veces que personas que no son de la etnia comienzan a hablar en nombre de ustedes.

Cuando yo veo que hay gente que está haciendo cosas que no son convenientes para los grupos mas marginados tiene enojo y no puedo creer lo que a veces escucho.

Es por eso que hoy tenemos esta reunión con ustedes las más altas autoridades pero es para que ustedes les digan y harán sus consultas. Esas consultas son válidas pero deben saber qué está pasando cuando alguien allá afuera dice que la comunidad Kuna Yala quiere eso y dicen ustedes otra cosa yo voy a decir "eso es mentira".

Pero resulta que el que dice eso por allá que la Comarca Kuna Yala quiere algo es el quien logra fondos con su plata que nunca se refleja acá.

Nuestra institución, a cargo de la Dra. Ligia Castro de Doens está luchando en conjunto con todo su equipo para evitar estas cosas.

Y nos ha creado muchos problemas los que nos están costando bastante ya que tenemos que ir allá, ir al otro lado en fin a desmentir todo eso.

Si yo oigo a alguno de ustedes diciendo eso no tengo ningún problema es su voluntad.

Estamos siendo transparente y les estamos dando toda la información directa a ustedes de lo que pasa cualquier inquietud todo el personal nuestro está capacitado para poder responder además de mi persona que estará disponible hasta que me retire de mi puesto pero todo el equipo de la ANAM va a seguir trabajando.

El viaje que posiblemente va a hacer el cacique Gilberto Arias, como miembro de la delegación a la reunión número 14 de las Partes y ustedes se preguntarán: "¿qué va a hacer el allá? Bueno allí nos vamos a reunir nuevamente todos los países. Ahí suceden 50 mil cosas al mismo tiempo.

La delegación de Panamá es como de 7 u 8 personas.

Pero uno de los temas que tiene que ver con la deforestación es un tema donde hemos influido fuertemente en lo que se está negociando, lo que se ha negociado.

Eso implica corregir un punto nada más que fue un mérito para Panamá y es que para estos temas para reducir la deforestación se tenía que contar con las comunidades indígenas.

Nosotros negociamos el año pasado, en la reunión número 13 y les voy a ser sincero muchos países no le dieron la bienvenida, países que tienen comunidades indígenas entre sus habitantes y mucho mayor que Panamá.

Luego de una amplia discusión quedó aceptado por todos que para el tema de ver cómo evitamos la deforestación si no se trabajaba con las comunidades indígenas esto no iba a funcionar.

El cacique Gilberto Arias nos acompaña y una de las reuniones que estoy seguro que voy a lograr es con la representante de las comunidades indígenas de todo el mundo la señora Victoria, ella es de Filipinas y es vocera de todos los grupos indígenas del mundo.

Ella me ha manifestado que tiene confusión con las posiciones de los grupos indígenas de nuestro país.

No quiero ahondar en eso pero que buena oportunidad puede tener el cacique y esta comunidad de una buena relación directa y de expresar directamente, a través de ella o ella tener claro qué sucede en la comunidad de Kuna Yala.

Entonces también vamos a tener otro evento donde vamos a hablar de todo lo que estamos tratando de hacer en Panamá para evitar la deforestación.

Don Gilberto también va a estar presente con nosotros. Todo esto es en inglés y vamos a dar la oportunidad para que él (Gilberto Arias) de su mensaje. Ya de hecho me han comunicado representantes del país de Noruega, un país que está poniendo plata bastante para este tema de deforestación y quiere tener una reunión con don Gilberto, una reunión cerrada donde nosotros (la ANAM) no participamos a menos que él nos lo permita.

Pero es aquí donde hay que ser muy estrategia para lograr un fondo y enfocarlo a sus necesidades.

Mucha gente me ha escrito porque ya les hemos dicho que posiblemente nos acompañe un cacique a esas negociaciones y ellos están muy contentos de poder tener esa relación, ese conversatorio directo.

Ya ustedes le preguntarán a él a su regreso que fue lo que pasó por lo que ya no me lo tendrán que preguntar a mí porque el cacique es parte de nuestra delegación. Yo creo que es una buena oportunidad en la cual ustedes expresen por voz directa del cacique todas sus preocupaciones a nivel internacional.

Nosotros estamos haciendo todo lo posible para el beneficio de ustedes. No es plata que queremos para las arcas de la ANAM, es para ustedes.

Esta es una consulta que hacemos con ustedes hoy día y la estamos iniciando con todos los grupos indígenas. Ayer nos reunimos con los miembros de la Comarca Emberá Wounán, que de hecho participamos en su congreso con el señor Betanio Chiquidama.

Chiquidama nos manifestaba muchos de ustedes pueden estar preocupados pero que él quería tener esa relación directa y creo que estamos dando un gran paso ustedes y nosotros. Chiquidama nos manifestó un conjunto de preocupaciones que son aquellas que debemos tomar en cuenta para aplicar las acciones. Él quedó convencido pero solo estamos en palabras falta la práctica.

Y es allí donde vamos a enfocarnos pero por lo pronto estar de acuerdo y si no estamos de acuerdo no podemos hacer nada. Le dije a él (Chiquidama) que le pedía un voto de confianza por nuestra institución que sabemos tenemos muchas debilidades y no es una institución perfecta falta bastante que hacer.

Pero que esté plenamente convencido que todo lo que estamos haciendo es para los grupos más marginados de nuestro país. Ahora resulta que en estadísticas uno de esos grupos son comunidades indígenas.

Es aquí donde les pido a ustedes ese voto de confianza que estoy seguro que la visita de don Gilberto a este evento en Polonia es un evento bien hostil va a causar un gran impacto en nombre de ustedes, en nombre del país que se está enfocando en hacer las cosas correctamente en beneficio de todos, no en un grupo minoritario.

Hay bastante por hacer y esta va a ser la misión de don Gilberto en esta reunión y puede ser en muchas otras más que sucederán cuando estemos allá.

Otro de los temas es los Estudios de Impacto Ambiental (EIA) y siempre se ha dicho que si los Estudios de Impacto Ambiental deben o no ser aprobados por la ANAM en fin. Pero todo eso es un análisis que se da y es aquí en donde entran muchas confusiones e intereses.

Si no existieran esas herramientas llamadas Estudios de Impacto Ambiental a lo mejor ya no hubiera bosques. A lo mejor ya hubieran desaparecido más de cuatro cosas porque el estudio de impacto ambiental, bien o mal, ha apoyado a que las cosas en materia ambiental se empiecen a hacer de otra manera, se hagan correctamente.

Sin estudios de impacto ambiental el país seguía su rumbo como quisiera cada quien. Entonces no quiero, no me gustaría mas bien que critiquemos una herramienta de estudio de impacto ambiental hay que entender qué es estudio de impacto ambiental.

No todos los estudios son aprobados pero del otro lado también viven un montón de gente. Y como yo dije la ANAM es como un pulpo lo halan aquí, lo halan allá, lo van halando por todas partes y hay que hacer el equilibrio.

Así es nuestra sociedad y la sociedad hoy en día está pensando que ustedes también necesitan apoyarse, apoyarse entre sí y que todo a veces pareciera no ser cierto y que muchos de ustedes no siguen sus reglas.

En materia ambiental es similar: hay sanciones, castigos y si no trabajamos juntos la ANAM, que es la rectora en el tema de los recursos naturales eso no quiere decir que es la única que trabaja y debe velar por el ambiente somos todos los que tenemos que trabajar.

Como yo dije tenemos muchas debilidades como institución, todas las del mundo pero estamos haciendo el mejor esfuerzo para incluirnos todos en una gestión ambiental en que al mismo tiempo podamos generar un ingreso para con ello tratar de mejorar nuestra calidad de vida la de ustedes, la de nosotros por lo que todos tenemos que cambiar nuestra cultura, la de ustedes tradicional.

Nuestra institución reconoce lo que ustedes han hecho gracias a Dios lo han hecho bien.

Ahora hay que reconocerles de otra forma porque también hay mucha presión. Intereses económicos existen y ustedes lo saben y es ahí donde tenemos todos que jugar un rol importante sucediendo esas cosas.

No es una tarea fácil a nosotros nos toca un papel bastante difícil pero estamos peleando, estamos peleando por el beneficio de todos, principalmente de las comunidades más marginadas.

Otras son las comunidades indígenas, que aunque no digo que sea esta, hay otros grupos que están muy dirigidos.

Y es aquí la clave del asunto. Ojalá ustedes se puedan mantener como se han mantenido hasta el momento pero cosas que están sucediendo les van a afectar, cosas como las que les comenté esta mañana.

No podemos hacernos de la vista gorda ellos viven allá eso es problema de ellos.

Ustedes han alzado su voz también y se ha escuchado pero ahora necesitamos conocer su sabiduría. Y eso es lo que queremos que nos transmitan su sabiduría para poder trabajar juntos en un futuro mejor para todos ustedes que están muy vulnerables.

Como dije hay una organización de las poblaciones indígenas de las Naciones Unidas y ahí hay una representante que no se como fue escogida me imagino que hay un proceso.

Ella es la vocera de todas las comunidades indígenas no recuerdo su apellido pero se que se llama Victoria y de cariño le decimos Vicky.

Yo he sostenido algunas conversaciones con ella y ella me ha manifestado una preocupación, principalmente en los pueblos indígenas panameños tales como que no los quieren en proyectos, no quieren esto, no quieren aquello en fin.

Ella ha tenido mucha confusión por los mensajes de quienes los representan a ustedes de Panamá le han dicho.

Al mismo tiempo ella escucha lo que nosotros estamos tratando de implementar y ella sabe que estamos incluyendo a las comunidades indígenas. Entonces se confunde y a veces no sabe qué decir o que posición tomar.

Eso por un lado. Porqué digo que es una reunión a puerta cerrada? Porque son comunidades indígenas que discuten.

Yo si quiero ser bien transparente y no influenciar en lo que el señor cacique quiera decir es su decisión, avalada por ustedes es lo que voy a entender.

Porque yo puedo estar y decir "cacique diga esto, cacique diga aquello" eso no lo quiero hacer. Yo quiero ser claro y que el hable con quien tenga que hablar.

El otro día a puerta cerrada y si el cacique decide invitarme yo puedo asistir también pero me gusta que ellos se reúnan primero y hablen y luego me puedan comunicar el resultado de esa reunión.

Con Noruega, Noruega está apostando a Panamá y lo están haciendo porque los estamos incluyendo a ustedes fuertemente todas las comunidades indígenas del país no solo Kuna Yala.

Ellos quieren ver también esos mecanismos cómo son. Yo les comuniqué que es muy posible que un cacique venga con nosotros a Poznan y así pueden conversar de repente ahí salen ideas porque es aquí donde tenemos que ser claros ya que ustedes nos dan ideas a nosotros también para `planificar una estrategia que sea efectiva.

También decía que nosotros teníamos muchos científicos aquí, tienen mucha capacidad nosotros solo tenemos que acoplarnos los dos grupos y comenzar a trabajar a implementar.

¿Qué queremos evitar? Que alguien de afuera venga a decirles o a enseñarles algo que ustedes ya saben.

Yo creo que ya es el momento de implementar acciones por ejemplo hacer un proyecto de reforestación de alguna especie bueno vamos a reforestar y ustedes ya saben qué es lo que tienen que reforestar.

Entonces esa es también la reunión con los representantes de Noruega ellos están muy interesados en que los países trabajen con las comunidades indígenas y conversar conmigo para ver como va a ser esa relación y como va el cacique que converse directamente con el.

Nosotros no tenemos ninguna objeción con ello y esas son las dos reuniones principales y todas no las puedo saber porque allá, como dije, allá se dan 50 mil cosas a la vez y eso empieza desde las 8 de la mañana hasta las 12 de la madrugada estamos trabajando todos los días.

También vamos a tener un evento que ni siquiera ha sido organizado por Panamá ha sido organizado por otro país o por otra empresa en el "Día de los Bosques" y por eso nos han pedido que hagamos una presentación. El evento lo han hecho para nosotros.

Quiero que el cacique haga unas palabras transmitiendo como pueblos indígenas que siente o espera del tema de la deforestación en el "Día de los Bosques".

Gracias i!!





ANEXO 3. PRESENCIA DEL CACIQUE GILBERTO ARIAS EN COP 14

Local Mitigation and Adaptation Measures of Indigenous Peoples
Presented by Tebtebba Foundation



L-R: Jennifer Rubis, Sarawak, Malaysia; Johnson Cerda, Comuna Santa Elena, Ecuador; Vicky Tauli-Corpuz, Tebtebba; Gilberto Arias, Kuna Yala Congress, Panama; Bill Erasmus, Athabaskan Council, Canada.

This event discussed the importance of indigenous peoples' mitigation and adaptation strategies and highlighted that while the climate change regime will have an impact in 20 to 30 years, a human rights-based approach may help indigenous peoples to cope with climate impacts now.

Jennifer Rubis, Sarawak, Malaysia, argued that the threats posed by climate mitigation projects may be more dangerous to indigenous peoples than climate change itself.

Johnson Cerda, Comuna Santa Elena, Ecuador, described how the Limoncocha community is breeding indigenous fish species to replenish the fish stock. He also argued that legal recognition of indigenous peoples' land title is crucial for forest conservation.

Gilberto Arias, Kuna Yala Congress, Panama, said that his community is located on an island being eroded by sea levels rise and coral reef destruction, while the population is increasing.

Bill Erasmus, Athabaskan Council, Canada, described changes in normal weather patterns that are endangering northern Canadian species, including caribou and the polar bear.

Margaret Lokawua, UN Permanent Forum on Indigenous Issues, Uganda, stressed the need to train local communities in veterinary services and improve conservation of traditional plant cultivars. Vicky Tauli-Corpuz, Tebtebba, argued that human rights of indigenous peoples, as defined by the UN Declaration on the Rights of Indigenous People, must be recognized in any outcome of the climate negotiations.

Participants discussed: how the Adaptation Fund and the CDM could include indigenous representatives in their decision-making processes, recognize indigenous knowledge, and support these initiatives through project funding under these mechanisms.



Jennifer Rubis, Sarawak, Malaysia. Vicky Tauli-Corpuz, Tebtebba. Bill Erasmus, Athabaskan Council, Canada.

More Information:
<http://www.tebtebba.org>

