Readiness Preparation Proposal (R-PP)

for Country: Nicaragua

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For Country Submission (without guidelines)

April 20, 2012

Forest Carbon Partnership Facility **(FCPF)**

The United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries **(UN-REDD)**

NOTE: The present version has been improved based on the recommendations made for the previous version from 23.04.12, by the TAP, World Bank Mission of the Latin America and Caribbean Region (LAC) and the results of the meetings and early dialog workshops with different stakeholders. The changes made to the 23.04.12 version, appear highlighted in yellow and the most recent changes added on 01.06.12 are highlighted in light blue.

Note: This version is for use by:

1) FCPF REDD-plus Country Participants submitting revised or new R-PPs to the FCPF FMT for PC 12 meeting in Colombia, June 27 – 29, 2012 or afterwards.

2) UN-REDD countries submitting National Programmes, as agreed.

General Information

Note: For submission to UN-REDD, an additional cover page with required signatures and information should be attached, which will be provided by the UN-REDD Secretariat.

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Summary of the R-PP

Dates of R-PP preparation (beginning to submission):	18/07/2010-01/06/2012
Expected duration of R-PP implementation (month/year to month/year):	18/07/2010-31/05/2015
Total budget estimate:	$10,273 Million
Anticipated sources of funding:	from FCPF: 3,699,000 Million from UN-REDD: N/A Local Government Contributions (estimate): $250,000 to be confirmed. [1] From REDD CCAD-GIZ project: $ 1,0 million (not official and to be defined) Resources with unassigned sources of funding: 6.7 Million
Expected government signer of R-PP grant request (name, title, affiliation):	Roberto Araquistain Cisneros Vice minister Ministry of the Environment and Natural Resources (MARENA)
Expected key results from the R-PP implementation process:	**Outcome 1.-** Sufficient local, territorial, regional and national knowledge to understand and actively participate in the design of the ENDE strategy, its reach, goals and concrete activities required to enable the REDD+ implementation in the country. **Outcome 2.-** Local, territorial, regional and national capacity building, acquire and share techniques and technology between the stakeholders involved in carrying out the REDD+ mechanism in the country. **Outcome 3.-** A national and regional revised ENDE-REDD+ forest monitoring system, reviewed and selected by local, territorial, regional and national stakeholders, where key issues of the monitoring system have been agreed upon, such as, variables, indicators and benefit distribution. **Outcome 4.-** Key local, territorial, regional and national stakeholders interested in implementing ENDE-REDD+ measures, are aware of the importance of the ENDE-REDD+, and have participated in the design and/or consultations of each RPP component, as well as in the planning and execution of the activities in the preparatory stage of the ENDE-REDD+.

[1] The Governments contribution has yet to be accounted, but it is estimated to be between 5 and 10% of the current budget.

Executive Summary

Please provide a one- to three-page summary of the R-PP in the space below, including: your assessment of the current situation, overarching goals of R-PP preparation, your proposed activities and expected results of each component, schematic of the expected readiness process, and the total funding requested and timing.

Add your description here:

Executive Summary

The Reconciliation and National Unity Government of the Republic of Nicaragua, through the Ministry of the Environment and Natural Resources, has the pleasure to submit for formal consideration and assessment by the honorable members of the Forest Carbons Partnership Facility (FCPF), gathered in the twelfth session over the period between the 27th and 30th of June 2012 in the City if Santa Marta, Colombia, the readiness and implementation proposal of the National Strategy for Avoided Deforestation, as a national policy platform to carry out activities that will help Reduce Emissions from Deforestation and Forest Degradation (REDD+).

The ENDE-REDD+ is conceived as the political and strategic framework of the Nicaraguan State to integrate, at a national, state and local level, activities focused on reversing the leading causes of deforestation and forest degradation taking into consideration the restitution of the rights of native peoples and the people of Nicaragua in general, to enjoy natural resources in a rationed and sustainable way.

The ENDE-REDD+ proposal arises as an initiative from the collaborative process of forestry governance that functions based on national forestry policies and legislation and has the broad support of the different public and private sectors as a way to fight, in an effective way, against deforestation and forest degradation, which are direct causes of climate change. The integration and dialog processes of this proposal counts on the direct support of the PCPF NITF-099264 donation through the World Bank, of the REDD/CCAD-GIZ Program for Central America and the Dominican Republic, of the MASRENACE-GIZ Program and the Office of the FAO in Nicaragua.

In Nicaragua, 40% of the economically active population is dedicated to agriculture, fishing and cattle raising, therefore their income is dependent on the endogenous and exogenous changes in these sectors. The farming system generates over 60% of exports, is the source of 32.2% of all employment and contributes 19% of the Gross Domestic Product (GDP), with a growth rate of 20.8%.

The countries extension of forest is estimated at 29.4% of the national territory, equivalent to 3,533,749.7 ha, of which 98% are natural forests. Of the total natural forests, 90.3% are broad leaf forests. 81% of the country's forests are in the Caribbean Coastl and Jinotega regions and the indigenous and afro-descendant communities occupy close to 50%.

Deforestation and forest degradation represent the leading environmental problem in Nicaragua. The leading causes are i) the expansion of the agricultural frontier in the last five decades (migratory agriculture and extensive cattle raising); ii) felling and illegal extraction of forest products (wood and timber), iii) forest and agricultural fires, iv) Environmental emergencies due to natural phenomena (hurricanes, mud slides, flooding, drought, forest plagues), v) social pressure over the need for resources by poor families and vi) settler invasions of indigenous territories.

To address current and future climate change problems, the Reconciliation and National Unity Government is promoting different national climate change mitigation and adaptation strategies. Among them is the readiness phase of the National Strategy for Avoided Deforestation ENDE, within the REDD+ framework (see table 1). Both concepts are combined and incorporated in the strategic

plan such as The National Plan for Human Development. Another suggested strategy is a substantial change in the development model, which transforms the quantity and quality of the energy sources, from 25% renewable in 2007 to 94% renewable in 2017, through direct investment, expanding opportunities for private investment and approving financing for hydro-electric, solar, geothermic and aeolian projects, to attain sustainable development. Currently, Nicaragua is second among countries in Latin America and the Caribbean to spearhead clean energy projects.

At a sub-national level, in Nicaragua, 62.7% of the forests are located in the Autonomous Regions of the Caribbean. In these regions over 50% of potential ENDE-REDD+ areas of the country are concentrated.

The National Development Plan for the Caribbean Coast proposes an integral human development model, in harmony with the culture and the geography of the Caribbean, which includes all three regions, that will strengthen the cultural identity and an equitable increase in economic growth , via three axis: i) increase the economic wellbeing for the communities of the Caribbean coast, ii) contribute to the equitable, sustainable and harmonious economic transformation between human beings and nature; and iii) strengthen the autonomous institutions to guide human development. In order to implement the National Human Development Plan (PNDH), the Producers Cabinet was formed, headed by the President of the Republic and State institutions associated with the farming and forestry sector.

This proposal summarizes the legal and institutional elements of the country, as well as the will of the State to coordinate efforts in order to achieve results during the implementation of the different policies and strategies of focused on reducing the effects of deforestation and forest degradation.

Nicaragua has seen significant advances in its organizational processes of ENDE-REDD+; over the last five years it has gradually organized the readiness platform of basic conditions needed to formulate, dialog, consult and implement the ENDE-REDD+. Nicaragua sees the ENDE-REDD+ mechanism as a great opportunity, and attempts to focus its efforts on fighting national deforestation and forest degradation, and to create a trans-sectoral mechanism that can identify multiple benefits and co-benefits of the forest.

The readiness phase of the ENDE-REDD+ strategy takes into account the different branches of government, as well as the regional, municipal and territorial levels of governments in the Autonomous Regions; coordinates the national institutional effort with the established technical and governmental instances, which have been, over the past eight years, developing and working within the framework of the specified laws established for these zones with special systems; an administration coordinated at the different levels.

In order to develop the National Strategy for Avoided Deforestation ENDE-REDD+, a plan will be designed for the consultation and participation process (PCP) specifically for the next phase. This consultation process will adhere to the requirements of the United Nations Declaration of the Rights of Indigenous Peoples (UNDRID) 169 of the ILO, ratified by the Government of Nicaragua, which includes the free, prior and informed consent of the indigenous peoples. This implies respect of their culture and vision, the use of their oral and written language in the process of consultation, and the traditional consultation mechanisms of these communities. Moreover, this process will adjust to the requirements of the safeguards policies of the World Bank (OP 4.10) related to the indigenous peoples and the World Bank guidelines on the participation of the stakeholders.

The multi-criteria analysis suggest a methodology based on the integration of the Geographic Information Systems (SIG), the Multi-Criteria Assessment Techniques (EMC) and the analytical hierarchy methods, so as to procure a model the will make it easier to locate the areas of deforestation

and degradation, which includes the socioeconomic, environmental and productive variables associated with these processes and with the potential to be applied in the framework of ENDE-REDD+. A digital vector and raster database was built which included biophysical, environmental, socioeconomic, and land-use variables, associated with land planning, defining the surface where degradation and deforestation occur. According to the results of this model, the leading causes of deforestation in Nicaragua can be attributed first to cattle raising activities and second to the farming activities that put a strain on the forested spaces of the national territory.

Among the leading limitations to implement the Reduction of Deforestation and Degradation of Forests under the international mechanism REDD+ are: (i) limited technologies and technical capabilities of the national institutions associated with the environment and forestry sectors, (ii) insufficient and weak conservation and forest management promotion policy, (iii) weak and insufficient systems of environmental and forestry planning and monitoring. For example: Nicaragua does not have enough environmental and forestry indicators to evaluate the state of advancement or reduction of the processes of deforestation and degradation at a national level, (iv) even more inter-institutional coordination is needed to develop a real environmental and forestry monitoring system in the country.

Our proposal includes the following guidelines:

1. Strengthen the institutional capabilities and the governing forestry structures
2. Align the political and regulatory framework
3. Technological restructuring of the agricultural, livestock and forestry production systems
4. Develop incentives that will lead to the protection, conservation and changes of soil use
5. Strengthen the commercial framework and value chains of the products of these activities
6. Improve the territorial governance and legislation processes of indigenous properties (restructuring phase)

As part of the strategy a monitoring system will be defined which includes biophysical (benefits and co-benefits) and socioeconomic elements , and a social and environmental safeguards system where the different stakeholders , specially the indigenous peoples, can evaluate and monitor from their territories, the development of the ENDE-REDD+

Acronyms used in this document

AMICA	Indigenous Women's Association of the Atlantic Coast
ANA	National Water Authority
ANACC	Nicaraguan Alliance Against Climate Change
AMUNIC	Associations of Nicaraguan Municipalities
APRODIN	Nicaraguan Association of Promoters and Advocates of Indigenous Rights
BOSAWAS	Bocay, Saslaya, Waspuk Biosphere Reserve
CADPI	Indigenous Peoples Autonomy and Development Center
CAMIPYME	Support Center for the Micro, Small and Medium Enterprise
CAPS	Committee on Drinking Water and Sanitation
CCF-A	Forest and Environment Advisory Council of the RAAN
CEPREDENAC	Coordination Center for the Prevention of Natural Disasters in Central America
CJN	Nicaraguan Youth Council

CMDS	World Summit on Sustainable Development
CMNUCC	United Nations Framework Convention on Climate Change
CONAGAN	National Cattle Ranchers Commission
CONAPAS	Committee on Drinking Water and Sanitation
CONAFOR	National Forestry Commission
CONIMIPYME	Nicaraguan Council for the Micro, Small and Medium Enterprise
CNUMAD	United Nations Conference on Environment and Development
COPAGRO	Agro-ecological or Organic Production Council
CORAZON	World Bank Bi-national Project in the BOSWAS Reserve
COSEP	Superior Council for Private Enterprise
CRAAN	North Atlantic Autonomous Region Council
DGCC	General Management on Climate Change
DIPECHO	European Commission Disaster Readiness Program
DINF	National Forestry Inventory Department of the National Forestry Institute
DIPECHO	European Commission Disaster Readiness Program
EdN	Nicaraguan Army
EDANES	Damage Assessment and Needs Analysis
ENABAS	Nicaraguan Enterprise for Basic Foods
ENACAL	National Drainage and Aqueducts Enterprise
ENDE	National Strategy for Avoided Deforestation
ESMF	Environmental and Social Management Framework
FAGANIC	Nicaraguan Federation of Cattle Ranchers Associations
FAO	Food and Agriculture Organization of the United Nations.
FCR	Rural Credit Fund
FCPF	Forest Carbons Cooperative Fund
FOSOVI	Housing Social Fund
FONADEFO	National Fund for Forest Development
GAPC	Environmental Cabinets of Citizen Power
GEI	Green House Gases
GIZ	German Collaboration for Development
GOFO	Territorial Committee for Forest governance
GRUN	Reconciliation and National Unity Government
GTI	Indigenous Territorial Government
GTRE	ENDE-REDD+ Working Group
IDR	Rural Development Institute
INAFOR	National Forestry Institute
INETER	Nicaraguan Institute of Territorial Studies
INFOCOOP	Nicaraguan Institute for Cooperative Development
INIDE	National Institute of Development Information
INIFOM	Nicaraguan Institute for Municipal Development
INTA	Nicaraguan Institute for Farming Technology
INVUR	Urban and Rural Housing Institute
MAGFOR	Faming and Forestry Ministry
MARENA	Ministry of the Environment and Natural Resources
MASRENACE	Program for the Sustainable Management of Natural Resources and Business Skills Development of the GIZ in Nicaragua
MIFIC	Ministry of Finance, Industry and Commerce

MINSA	Ministry of Health
MOSAFC	Family and Community Health Model
MPMP	Medium Term Budgetary Framework
MRV	Survey, Reporting and Verification System
NNUU	United Nations
ODM	Millennium Development Objectives
ONG	Non-Governmental Organization
PCaC	Farmer to Farmer Program
PIB	Gross Domestic Product
PCSSAN	Joint Food Safety and Sovereignty Program
PERFOR, ERA	Central American Cooperation Agreement
PESA	Special Food Safety Program
PFN	National Forestry Program
PINE	Comprehensive School Nutrition Program
PDCVD	Design, consultation, verification and dissemination plan
PNDH	National Fund for Human Development
PNUD	United Nations Development Program
PCP	Consultation and Participation Process
PRORURAL	Sector Program for Productive Rural Development
RAAN	North Atlantic Autonomous Region
RAAS	South Atlantic Autonomous Region
REDD	Reducing Emissions from Avoided Deforestation and Forest Degradation
REDPCN	Network of Indigenous Peoples of Pacific, Center and Northern Nicaragua
RL/REL	Reference Level/ Reference Emission Level
RPP/ENDE	Readiness Phase of REDD+ of the National Efforts to reduce Deforestation and Forest Degradation
SEJUVE	Presidential Youth Secretariat
SESA	Environmental and Social Assessment System
SDC	Secretariat of the Caribbean Coast of the SETEC
SICA	Central American Integration System
SINAP	National System of Protected Areas
SINIA	National System of Environmental Information
SINAPRED	National System for the Prevention, Mitigation and Attention to Disasters
SNU	United Nations System
SETAB	BOSAWAS Technical Secretariat
STRE	Technical Secretariat of the ENDE-REDD+ Process
TAC	Annual Switching Rate (referring to land use change)
ToR	Terms of Reference
UCA NITLAPAN	Research, Creation and Dissemination of New Models and Methodologies for Local Rural and Urban Development
UNA	National Agrarian University
UNAG	National Farmers and Cattle Ranchers Union
UNI	National Engineering University
UN-REDD	UN-REDD Program
UNDRID	United Nations Declaration of the Rights of Indigenous Peoples
URACCAN	University of the Autonomous Regions of the Caribbean Coast of Nicaragua

Component 1: Organize and Consult

1a National Readiness Management Arrangements

[Please include each component's standard box like this one in your submission]

Standard 1a the R-PP text needs to meet for this component:
National Readiness Management Arrangements:

The cross-cutting nature of the design and workings of the national readiness management arrangements on REDD-plus, in terms of including relevant stakeholders and key government agencies in addition to the forestry department, commitment of other sectors in planning and implementation of REDD-plus readiness. Capacity building activities are included in the work plan for each component where significant external technical expertise has been used in the R-PP development process.

Please provide the following information:

- **Summarize the national readiness management arrangements in the space below in a few pages;**
- **Provide a brief summary activity and budget and funding in Table 1a (detailed budget data and funding table go in Component 5);**
- **If necessary, attach a work program or draft input to ToR for activities to be undertaken in Annex 1a.**

Add your description here:

National Readiness Management Arrangements

Introduction

Due to its geographic location, Nicaragua is part of a vulnerable region that is frequently affected by natural phenomena that are a constant threat to its population (volcanic eruptions, earthquakes, dangerous meteorological phenomena such as tropical storms and hurricanes). This vulnerability to natural phenomena increases in magnitude and intensity due to the effects of climate change and the processes of deforestation, erosion, sedimentation, pollution, expansion of the agricultural frontiers, improper land use and the deterioration of natural resources . **Nicaragua is among the 5 most vulnerable countries in the world**[2]; and according to the study performed by the IADB in the year 2000, it has the most prevalent vulnerability among the 14 Latin American countries studied.

Figure 1. Nicaragua's Location in Central America

[2]Germanwatch. Global climate risk index 2011. Who suffers most from extreme weather events? Weather-related loss events in 2009 and 1990 to 2009.

Nicaragua is the largest country in Central America with 130,373.47 Km^2 (including 10,033.93 of lakes y lagoons) and a total estimated population of 5,483,447 inhabitants[3]; it is in 124th place in the Human Development Index 2010 (IDH), with a per capita gross domestic product of US$ 1,126 dollars (BCN[4]), considered one of the lowest in Latin America with an extreme poverty index of 18.5%[5]. The **Gini coefficient showed improvement** when it fell from 0.532 (2005) to 0.46 (2009), making it **third among the countries with the best results in Latin America**[6].

In Nicaragua, 40% of the economically active population is dedicated to agriculture, fishing and livestock, therefore their income is dependent on the endogenous and exogenous changes in these sectors. This factor affects the country's initial vulnerability[7]. The farming system generates over 60% of exports and is the source of 32.2% [8] of all employment. The farming sector contributes 19% of the Gross Domestic Product (GDP) , with a growth rate of 20.8%. The contribution of the forestry sector to GDP[9], in the last 6 years has decreased to a sum equal or less than 1%. Close to 32% of producers are dependent on farming for their sustenance[10]. Due to poverty conditions, the lack of access to the market and information and above all the scarce infrastructure, makes it very difficult for them to fight the adverse consequences of climate change. The National Human Development Plan recognizes that the consequences of climate change are a threat to human development and the efforts of countries like Nicaragua to reduce poverty; therefore these efforts must be taken on in an increasingly connected way.

The Nicaraguan territory is characterized by 60% forested land[11], steep inclines in large parts of the territory, erodible soils, mostly of volcanic origin, and intense rains (over 100mm/hr), which is further evidence its level of vulnerability. Even without taking into consideration the climate change phenomenon, since the 1960's there has been an accelerated degradation of natural resources, soil and forests due to increased patterns of monocultures which are highly dependent on external consumables, and extensive cattle herding, both in detriment of the forested areas, resource degradation and therefore its natural capital.

The forest ecosystems are considered a direct source of resource for the rural and indigenous communities which are dependent on those ecosystems because of the multiple benefits (goods and services) that they generate and for their ecological functions (hydrological cycles, micro climate, water production, soil conservation, erosion control, among others); all of which is key for the tourism, agro-ecotourism, industry, transportation, energy, farming and forestry sectors to be able to avail themselves of, use and enjoy. Therefore, the forests and all the forest ecosystems are vitally important to the entire country's population.

The disasters that have affected Nicaragua have demonstrated the severe vulnerability of the country's economy to these threats. The effects of climate change make Nicaragua one of the most afflicted countries in Central America. With the increase in population, the demands for water could increase 300% by the year 2050. The availability of renewable water sources could decrease by 35%. The country's Biodiversity Potential Index (IBP) would be reduced 30% to 75%. Likewise, basic grains output

[3] National Institute of Statistics and Census (INEC) 2005
[4] Nicaraguan Central Bank Report 2010
[5] OPS 2002 Country profile, Nicaragua
[6] CEPAL, cited by INDE, 2011
[7] BCN 2009 Cited by Milán, 2010; Notes on climate change in Nicaragua.
[8] Nicaraguan Central Bank Report 2010
[9] Gutiérrez G. 2011; GIZ; forestry sector accounting in the national accounts of the GDP of Nicaragua.
[10] CEPAL 2010 The economy of climate change in Central America.
[11] Nevertheless, the sector only contributes close to 1% of GDP.

will tend to diminish significantly (30 to 50%) over the next decades[12]. It is also possible that by the year 2020 the basic grain producing zones may increase due to migratory farming, causing major erosion problems and the expansion of the agricultural frontiers[13].

The countries extension of forest is estimated at 29.4% of the national territory, equivalent to 3,533,749.7 ha, of which 98% are natural forests. Of the total natural forests, 90.3% are broad leaf forests. 81% of the country's forests are in the Caribbean Coast and Jinotega regions and the indigenous and afro-descendant communities occupy close to 50%[14]. Close to 2 million hectares are being overused by farming activities, making it the leading cause of deforestation, calculated at 76,000ha/year. Nicaragua has 9 RAMSAR sites and 405.502 hectares declared as important international wetlands[15].

Deforestation and forest degradation represent the leading environmental problem in Nicaragua. The leading cause is the expansion of the agricultural frontier in the last five decades (migratory agriculture and extensive cattle farming). The central problem is the loss of forest, the degradation of the forest ecosystems and with that, the reduction in the production of its goods and services, impacting the quality of life of the population. The topic is dealt with in detail in section 2.a.

Some revealing statistics about Nicaragua's forestry problems
➢ Annual deforestation is estimated to be about 70,000 hectares (INAFOR, 2010) ➢ Forest areas of the Pacific have lost between 30 to 80% of their natural ecosystems (MARENA, 2007) ➢ Loss of protected natural ecosystems, their biodiversity and their capacity to generate environmental goods and services (water, biodiversity, carbon capture) (MARENA, 2007) ➢ It is estimated that 40% of forest soils in Nicaragua that have been seized are used for farming activities. (INAFOR, 2010) ➢ The tropical wetlands ecosystem represents almost 60% of the national territory and is suffering strong degradation due to inadequate use and soil management. (MARENA, 2007) ➢ In Nicaragua drought areas represent approximately 14% of the national territory and are characterized by severely degraded soils. (MARENA, 2007) ➢ According to the green house gases inventory, based on the year 2000, total emissions were estimated at 101,182Gg CO_2 and total absorption was 68,493Gg CO_2 (MARENA 2008). This outcome is mainly due to land use change, mainly deforestation and forest degradation (MARENA,2008)

A detailed analysis of the direct causes of the phenomena is described in section 2.a.

1.- Elements of the National Forest Environment Management in the formulation of ENDE

Nicaragua, through the Reconciliation and National Unity Government (GRUN), is doing its part in building solutions to the causes and effects of climate change. Conscientious of the close relations between energy, economy, environment and development, the Government has proposed a substantial change in its development model, transforming the quantity and quality of its energy matrix from 25% renewable in 2007 to 94% renewable by 2017, through direct investment, expanding opportunities for private investment and approving financing for hydro-electric, solar, geothermic and aeolian projects, and working towards a sustainable development. Currently, **Nicaragua is second among countries in Latin America and the Caribbean to spearhead clean energy investment projects**[16], surpassed only by Brazil.

[12] CEPAL , et al, 2010; The economy of climate change in Central America. 2010 Summary.
[13] Milán, 2010; Notes on climate change in Nicaragua.
[14] INAFOR, FAO, 2009;Nicaraguan National Forestry Inventory
[15] Second in all of Middle America
[16] Climascopio Report 2012, in the framework of the 53 Annual Assembly of the IADB

Nicaragua was the first country to sign on to the Universal Declaration on the Common Good of Mother Earth and of Humanity (2010), which is based on the principles of protection and restoration of the ecosystems, with a special focus on biological diversity. As a practical expression of these principles, in 2010 the National Environment and Climate Change Strategy was approved to guarantee the participation of the people and the governmental institutions, to develop conservancy actions and natural resource preservation[17].

Furthermore, as part of the historical compromise with the people of Nicaragua and in line with the international dialog[18], it is working in a systematic and consistent way to eradicate poverty and inequality, underpinning a pro-poverty growth with social responsibility and a change in the production and consumption patterns, ensuring more citizen security and achieving sustainable development in energy, and food security and sovereignty. The approaches that favor and/or combine the country's strategy to combat poverty and climate change are highly praised by the Government. Nicaragua must go beyond bad replicas and experiments with its own growth and develop a model, with its own cultural and historical characteristics and based on the use of its land. **The ENDE-REDD+ seeks to make a substantial contribution in this direction.**

To address the current and future climate change problems, the Reconciliation and National Unity Government (GRUN) is promoting different national mitigation strategies, as well as climate change adaptation strategies, among them, the preparation phase of the National Strategy for Avoided Deforestation, ENDE-REDD+, and will incorporate them into their strategic plan, such as the National Human Development Plan.

The National Human Development Plan defines the priorities in the fight against hunger and poverty. This Plan defines as one of its principles the "Sustainable development for the defense, protection and restoration of the environment" focused on 11 Environmental Policies that will improve the wellbeing of the people, to overcome poverty and preserve the natural patrimony; among them the Adaptation and Mitigation Policy against Climate Change (PAMCC), with a focus on preparing people to reduce their vulnerability and adapt to climate change, with a priority on adapting the human systems with the objective to reduce the poverty gap, as well as reduce land use change in the agricultural sector (cattle raising), and contribute to the energy matrix through renewable energy.

ENDE-REDD+[19]is conceived as an implementation tool in the strategic and programmatic framework with regard to mitigation and climate change adaptation. It is aimed at reducing emissions due to deforestation and forest degradation, as well as preventing and reducing the negative impact of climate change, through increasing resilience and coping capabilities of the forest and farming ecosystems and of the communities that depend on them, in order to reduce social, ecological and economic vulnerability, and to create the capabilities to contribute to the mitigation of GEI (mainly CO_2); ENDE-REDD+ is committed to attaining sustainable management of forests, to biodiversity conservation, to increase the carbon reservoirs, and to generate the co-benefits of conservation and its effects on the wellbeing of the people. We understand REDD+ to be a mechanism capable of providing economic benefits that contribute to conserve the forests and even contribute to the reduction of green house gases (GEI). It is expected that this mechanism will offer significant co-benefits, such as,

[17] GRUN; Profess report of the PNDH, 2010

[18] Preparatory Meeting of the United Nations Conference on Sustainable Development, "Rio+20".

[19] This conceptualization of ENDE will be the basis for areas of consultations. This definition is a proposal that will be reviewed, evaluated and enriched in teas of participation at the national, regional, community and territorial levels. Therefor they can vary if contributions to the current definition arise during these procedures .

ecosystem maintenance, improved biodiversity, improved rural livelihood and climate change adaptation.

Hereafter deforestation and degradation (DD) are understood to mean:

Deforestation: is the conversion, by direct human activity, of forested land into non-forested land (areas below the forest threshold, lower that 10% forest cover).

Degradation: is the condition by which a forest has been reduced in its natural capacity, but not below 10% of its forest cover (it is still within the forest threshold). Forest degradation is considered a long term reduction in carbon stocks, in the forest cover as well as at the top, nevertheless, the area is not reduced below the threshold definition of forest[20].

TABLE 1: Brief Comparison between REDD+ and ENDE

Comparative elements	REDD+	ENDE
Focus	Mitigation	Mitigation and Adaptation
Eligible methods	Reduce emissions due to deforestation Reduce emissions due to degradation Improve carbon reserves Carbon reservoir conservation Sustainable forest management	Reduce emissions due to deforestation Reduce emissions due to degradation Improve carbon reserves Carbon reservoir conservation Sustainable forest management Improvement of sustainable livelihood (agro-forestry, forest grazing, ecologic agriculture, community forest managements) Co-benefits of the forest, ecosystem goods and services.
Characteristics	Incentives to improve sustainable livelihood Compliance with social and environmental safeguards. National and International cross-checks. Demanding and expensive technical requirements. Market and non-market mechanisms.	Attempts to strengthen strategies and existing national, regional and territorial plans. Attempts to promote a fund for environmental-forest conservation and management of the forests, as an institutional mechanism. **Non-market** approach **and rights restitution** to those who conserve their forests. **Apply co-benefits and biodiversity**. Focus on improving resilience for **adapting to climate change** Complete respect for **mother earth** and the right of the **indigenous** peoples.

[20] Terminology approved in the Marrakesh agreements (Land Use, Land-use Changeand Forestry) found in document FCCC/CP/2001/13/Add.1, p.58. http://www.forru.org/PDF_Files/rfrtfpdf/rfrtfappendix.pdf

Nicaragua has advanced its institutional legal framework by delineating defining policies

Nicaragua has a modern legal framework in the forest and environment sector, consistent with the expectations established in this readiness phase. Nevertheless, there is little coordination between manufacturing and environmental policies and laws, which generates atomatization of roles and functions of the entities in charge, which results in an ineffective implementation. This will be dealt with and improved during the readiness and implementation phase. Some of the most important reference tools are:

The 25-2001 Decree: Nicaragua's environmental policy states in "*Article 1.- Establish the Nicaraguan Environmental Policy for the purpose of guiding the coherent actions of the public administration, at a central, regional and municipal level, as well as involve civil organizations and the Nicaraguan people in general, in order to preserve, improve and recover an environmental quality favorable to life, guaranteeing harmony between environmental management and economic growth, social equality, quality of life improvement and the sustainable preservation of the environment*".

The 69-2008 Decree: The National Sustainable Development Policy of the Forestry Sector of Nicaragua states in *Article 3.- **Objective:** With a high level of citizen participation, to contribute to improving the quality of life of the current and future generations of Nicaraguan people, giving priority to the families of small and medium forest and agricultural producers, peasants, field hands, indigenous peoples, afro-descendants and ethnic communities; promoting sustainable development of the forestry sector with a focus on the replenishment of the forest resources, avoided deforestation, rationed forest management and community foresting with an entrepreneurial vision.*

This policy also defines specific key objectives such as: to promote forestry governance mechanisms and coordination, encourage intra-sectoral associative processes and territorial management; to strengthen and modernize the National Forestry Management System capabilities; to encourage the coordination of the agricultural, cattle raising and forestry value chains with the promotion of financing and development mechanisms for the development of value chains that use and manage the forest ecosystems of the nation in a sustainable manner".-

Historically, the efforts to reduce deforestation and degradation have concentrated on legal and institutional political instruments, within the forest sector, with a coercive focus, while the underlying causes stem from the agricultural sector, an activity that is deeply rooted in the Nicaraguan culture. This is evidenced, when analyzing the number of laws and norms of both sectors, by a disproportionate difference, in which there is clearly a much larger content in the forestry activity.

1.-The Citizen Power model

Environmental Cabinets of Citizen Power[21] (GAPC) were created in 2007 with the aim that the Nicaraguan people of different social sectors of the country, engaging in participative and direct democracy, organize and participate in the integral development of the nation in an active and direct way and that they support the plans and policies of the country. These GAPC have a presence in the communities, regions, neighborhoods, districts, municipalities, departments, autonomous regions and at the national level. The coordination of the GAPC at a national, departmental and municipal, regional and neighborhood level, has allowed the participation of about 350,000 students each year in the National Reforestation Campaign, and the creation of 476 voluntary community brigades for the prevention and control of forest fires at a national level. The coordination effort will contribute to the operability of the ENDE-REDD+.

[21] Decree No. 112-2007 Creation of the Citizen Power Councils and Cabinets. November 2007 See: http://legislacion.asamblea.gob.ni/Normaweb.nsf/%28$All%29/45B8626344F8E110062573D700655C46?OpenDocument

The axis of the Citizen Power propelled models establish, among others, the following: i) improve the quality of life of the people of Nicaragua, in shared responsibility with the citizenry, incorporating the principles of defending nature and the environment, fighting poverty and conserving the natural patrimony; respecting the ancestral rights of the indigenous peoples and of the ethnic communities; ii) implement an integral, informed and participative environmental management model, that reduces the vulnerability to climate change, that will favor the integrated management of water basins, massive reforestation, conservation of protected areas, the protection of biodiversity and the reduction of pollution.

2.- The National Environmental and Climate Change Strategy

In April of 2010 the Government, through the Office of the President, launched the National Environmental and Climate Change Strategy Action-Plan 2010-2015, upheld in Article 60 of the Political Constitution[22] and the principals of the PNDH. It includes a wide range of knowledge at the basin level and of productive sectors, where it deals with climate risks, vulnerabilities and action lines in an integral way to create the institutional agreements, technical capabilities and necessary conditions for its implementation. The measures identified are aimed at strengthening the efforts to improve the quality of life of the population and constitutes an environmental and socioeconomic management tool.

The ENDE will be immersed or closely linked with the ENACC, as well as with other instruments and directives related to deforestation and degradation in the country. The ENDE-REDD+ proposal is formulated with directives in the PNDH, PDHCC, PAMCC, ENACC, and other international, national and regional development strategies, instances and instruments, such as the CMNUCC international frameworks and instruments and the social, environmental and indigenous peoples safeguards. In the regional arena, the PERFOR, the ERAS, the ERCC and in the national arena the ENDE are based on the PNDH.

This R-PP does not assume to precisely define the ENDE-REDD+, it attempts to create the organizational and financial conditions to develop the processes and areas of consultation and participation, taking into account the political and environmental management tools, rural and agricultural, and other strategies developed in the sector for the effective implementation of the ENDE-REDD+, including a Social and Environmental Assessment Strategy (SESA), in the entire formulation and execution process.

3.- Arrangements and Provisions for the National Management of the Preparation Phase

The arrangements for the national management of the readiness phase are focused on managing and coordinating the activities of the ENDE-REDD+ phase, while they are being incorporated in the strategies and processes of broader work such as the National Human Development Plan, Environmental Adaptation and Mitigation Policies (PAMCC), the National Environmental and Climate Change Strategy (ENACC), among others. Therefore, these proposed arrangements, instances, functions and mechanisms have two directions: the current work processes to confront climate change, and the arrangements and mechanisms that respond to the ENDE as part of the management arrangements for climate change mitigation and adaptation, including plans with short, medium and long term results.

One of the main outcomes of this analysis is the combination of existing coordinating entities with the inter-sectoral working group, at a national level, that includes the main stakeholders with well defined roles and essential responsibilities. Likewise, it establishes the SESA coordination mechanisms to

[22] "Right to a healthy environment. The Nicaraguan people have the right to live in a healthy environment. It is the duty of the State to preserve, conserve and rescue the environment and natural resources.

integrate social and environmental considerations in the readiness and implementation phase of the ENDE-REDD+.

In order to propose institutional arrangements that are effective and viable from a legal standpoint for the formulation and implementation of the ENDE-REDD+, an analysis of the mandates and interests of the stakeholders and of the possible strategies to be applied, has been carried out in order to achieve the objectives of the ENDE-REDD+. The analysis presented here is a product of the dialogs and joint planning efforts of the GRUN, through the MARENA , in order to try to resolve Nicaragua's deforestation, forest degradation and environmental problems.

The roles and functions of each of these actors are based on the analysis of the legal framework and institutional capabilities, and have been crucial in the production of this preparatory phase of the ENDE-REDD+ Strategy. They will also be important for the precise definition of roles through institutional framework reform, operational regulations of each of the three levels of the strategy, in the preparatory phase, as well as in the following phase. These regulations will be prepared in the R-package phase, with financial support. Likewise, the definitions included in this analysis will be key components to be included in the guidelines and strategic actions that this document establishes in section 2.b.

Climate Change Political Institutional Framework

The guidelines of the PNDH 2012-2016 are: i) economic growth and macroeconomic stability to increase jobs and reduce poverty and inequality; ii) strengthen the great alliance between workers, producers and the government; iii) sovereign and independent foreign policy and external cooperation, open to all the countries of the world in the fight against poverty, in order to benefit Nicaraguan families; iv) Central American integration, of the Latin American and Caribbean ALBA through CELAC; v) citizen security and the fight against drug trafficking and organized crime; vi) the integral and autonomous development of the Caribbean Coast; vii) participative public administration and direct democracy; viii) the common good and social equality for Nicaraguan families; ix) science, technology, innovation and entrepreneurship for the transformation of Nicaragua; x) the manufacturing sector, giving priority to family, community and cooperative economics and food sovereignty and safety; xi) the social, transportation, energy and production infrastructure for the transformation of Nicaragua, and xii) to protect Mother Earth and climate change mitigation and adaptation. This last guideline is in line with the ENDE.

Figure 2. PNDH Axis in Nicaragua

The PNDH of the GRUN[23] also includes in a unique way, the development strategy for the Caribbean Coast and the transformation of the energy matrix. As part of the same plan, monitoring and assessment tools are presented, which allow to assess its own performance, the results and impact, and at the same time, define citizen participation and consultation processes with its own unique and genuine GRUN management mechanisms, which will be applied in all the development spheres of the country. The GRUN has determined in the PNDH that it is necessary to reverse deforestation and forest degradation rates. The ENDE-REDD+, through SESA, must have channels that facilitate the monitoring and assessment of the plans effectiveness, with a social and environmental perspective.

The PNDH actions referred to in the forestry sector are: i) forest regulations, in compliance with laws and policies to increase credibility and governance; ii) decentralization, distribution and regionalization to improve the process of conferring powers and capabilities of forest management, toward regional and municipal governments; iii) legislation and control to strengthen and modernize the National Forestry Legislation, Control and Verification System; iv) promote and protect the forests to adequately value the forest resources; v) prevent and protect the forests to preserve the genetic riches of the forest, particularly in protected areas; vi) community forestry of the indigenous and ethnic peoples in order to recognize their rights in the management of forest; vii) coordination of the forest value chain to assist its integration; viii) the territorial environmental legislation of forest resources; and ix) access

[23] Presented by the Office of the President of the Republic of Nicaragua in 2008.

to resources that favor long term investment and economic, social and environmental development in the territory.

In a climate assessment of the Nicaraguan Human Development Plan, carried out by the PNUD between October 2009 and March 2010 for the forest and agricultural strategy, a specific mention related to climate change remarked the need for improving practices and tools for the sustainable management of the soil, water and forests in order to confront climate change. Likewise, an emphasis on the use of sustainable natural resources and risk avoidance of future generations was proven, which is a key foundation to promote climate change adaptation.

The Sectoral program for Rural Development PRORURAL Incluyente, represents the countries forest and agricultural strategy and integrates three programs: i) the National Food Program; ii) the National Forest Program; and iii) the National Rural Agro-Industrial Program. This program is aimed at reducing rural poverty, improve the quality of life and standard of living of people, in order to achieve full human and patrimony development for current and future generations of rural population, indigenous communities and afro-descendants. The Strategic Principles of the Program, attempt to **remove the barriers that oppress the people**, with an aim towards a **dignified and secure future**, raising the self-esteem and self-confidence of rural families through capitalization, the transformation of their products and the coordination of the internal and external markets. Through the guidelines and strategic actions, the ENDE-REDD+ connects to the PRORURAL Incluyente as a sectoral platform.

In economic terms, this means: i) increase production to improve food supply to the market; access and consumption of quality healthy food to eradicate hunger and malnutrition; ii) increase the value added of farm products, income and jobs for rural men and women; iii) the regeneration and sustainable use of natural resources; iv) the development of capabilities; and v) the association, solidarity and social cohesion of the rural villagers of both sexes, so they can guide their destiny in an autonomous, participative, socially inclusive and friendly way with the environment.

Institutional framework for the readiness and implementation of the ENDE-REDD+

In order to implement the National Human Development Plan (PNDH), the Producers Cabinet was formed, headed by the President of the Republic and the State institutions associated with the farming and forestry sector: 1. Nicaraguan Institute of Territorial Studies (INETER), 2. Ministry of the Environment and Natural Resources (MARENA), 3. Faming and Forestry Ministry (MAGFOR), 4. Nicaraguan Institute of Fishing and Agriculture (INPESCA), 5. National Forestry Institute (INAFOR), 6. Produzcamos Bank, 7. Nicaraguan Institute for Farming Technology (INTA), 8. Rural Development Institute (IDR), 9. Nicaraguan Institute for Cooperative Development (INFOCOOP), 10. Nicaraguan Enterprise for Basic Foods (ENABAS), 11. Ministry of Finance, Industry and Commerce (MIFIC), 12. Ministry of Health (MINSA), 13. Ministry of Transportation and Infrastructure (MTI) and 14. Ministry of Energy and Mines (MEM).

By high mandate, the Producers Cabinet guarantees food security and sovereignty, access and quality as a human right, with clean production technology, through the adequate use of water, soil and its nutrients, **to defend and sustain our natural resources and confront climate change** and its consequences. The forest sector strategy envisages increasing production, performance and sustainability, using forest and agricultural good practices[24]. The Implementation of the PNDH through the Producers Cabinet has evaluated previous experiences to determine the highest ranking authority

[24] Agro-forestry, forest management, natural regeneration management, reforestation, optimal soil use, water and soil conservation work.

in the country for the decision process to guide the ENDE-REDD+ in an efficient manner. The political level of decision making for the ENDE-REDD emerges from here for its formulation, execution and assessment. The current time and political institutional context is the proper stage on which to fully develop the ENDE-REDD+.

Nicaragua has had significant advances in its organizational processes of ENDE-REDD+. It has gradually organized the readiness platform of basic conditions needed to formulate, dialog, consult and implement the ENDE-REDD+. Nicaragua sees the REDD+ mechanism as a great opportunity, and attempts to focus its efforts on fighting national deforestation and forest degradation, and to create a trans-sectoral mechanism that can identify multiple benefits and co-benefits of the forest. Independently form the UNFCCC negotiations and the existing REDD+ mechanisms, the GRUN along with the Nicaraguan people as a nation, are committed to develop strategies, plans and work processes in order to reduce the loss of forest cover in the country.

Three levels of work have been created in order to implement the ENDE-REDD+ and its sub-national outline. The first level will be formed by: i) the Ministry of the Environment and Natural Resources (MARENA); ii) the Faming and Forestry Ministry (MAGFOR); iii) the Nicaraguan Institute of Territorial Studies (INETER); iv) Treasury and Public Credit Ministry (MHCP); v) the National Forestry Institute (INAFOR); vi) the National Fund for Forest Development (FONADEFO); vii) the Ministry of Finance, Industry and Commerce (MIFIC); viii) the Associations of Nicaraguan Municipalities (AMUNIC); ix) a representative of the North Atlantic Autonomous Region Government (RAAN); x) a representative of the South Atlantic Autonomous Region Government (RAAS); xi) a representative of the indigenous territorial authorities of the Pacific Center; xii) two representatives of the Indigenous Territorial Governments of the RAAN; xiii) the Attorney General of the Environment (PGA); xiv) the Public Ministry; xv) the Nicaraguan Army; and xvi) the National Police.

Level II, formed by government officials for the technical units specialized in forest policies, climate change, technological research and innovation and information systems of MAGFOR, MARENA, INAFOR, INETER, SE-SINAPRED, AMUNIC,GRAAN, GRAAS, the Army and the Police. Along with the three representatives of the Indigenous Territorial Governments of the RAAN, a representative from the Indigenous Territories of the North Pacific Center, representatives of the ANACC, representatives of the Universities, representatives of the Producers Unions (UNAG), and a representative of CONAGAN[25].

Level III is a more open authority for readiness and consultation convened by the government to inform and consider feedback on the topic from different key stakeholders .

In the constitutional framework, the public policies and laws of our country, we define the roles of the institutional members of the ENDE-REDD+, mentioned below:

1. Social audit and independent monitoring: Those that form organized civil society: Communities, Churches, Indigenous Peoples, Organizations, Associations, among others;
2. Municipal, regional and territorial governments;
3. The National Forestry Commission as an authority for policy dialog (Law 462);
4. The National Cattle Farming Commission as an authority for policy dialog;
5. The National Agro-ecological or Organic Production Commission as an authority for policy dialog (Law 765);

[25] In the accreditation process.

6. Writers and implementers of public policies, programs and strategies, formed by the Farming and Forestry Ministry (MAGFOR), Ministry of the Environment and Natural Resources (MARENA), Nicaraguan Institute of Territorial Studies (INETER), Ministry of Finance, Industry and Commerce (MIFIC), and the Treasury and Public Credit Ministry (MHCP);
7. The framework of the National Forestry Program (INAFOR), the main operator that will promote forest management, forest promotion and protection, participative forestry, communal forestry, area forestation and reforestation, regulation and control, industry restructuring to improve the value added and exploitation of forest products
8. The National Forest Development Fund (FONADEFO) will manage the constituted financial mechanism;
9. The institutions in charge of defending Nicaragua's forest ecosystem resources include MAGFOR, MARENA, INAFOR, the Attorney General of the Environment, the Attorney General, the Nicaraguan Army and the National Police that interact with the Nicaraguan Judiciary Powers which include the Courts, Appellate Courts and the Supreme Court (CSJ).
10. Aside from these functions and those that are assigned to them by law, in the analysis of those involved a series of functions and important roles have been identified, in order to define the activities of each of the stakeholders, in accordance with the central objective of reducing deforestation and forest degradation in Nicaragua.

4. Organization and Functioning of the ENDE-REDD+ Outline and the institutional structure

The consultation organization and the participative process related to the readiness process for the ENDE-REDD+ in Nicaragua is based, on the one hand, on the existing forest and rural development coordination structures, and on the other, the new or complimentary authorities specifically related to the ENDE-REDD+ Strategy.

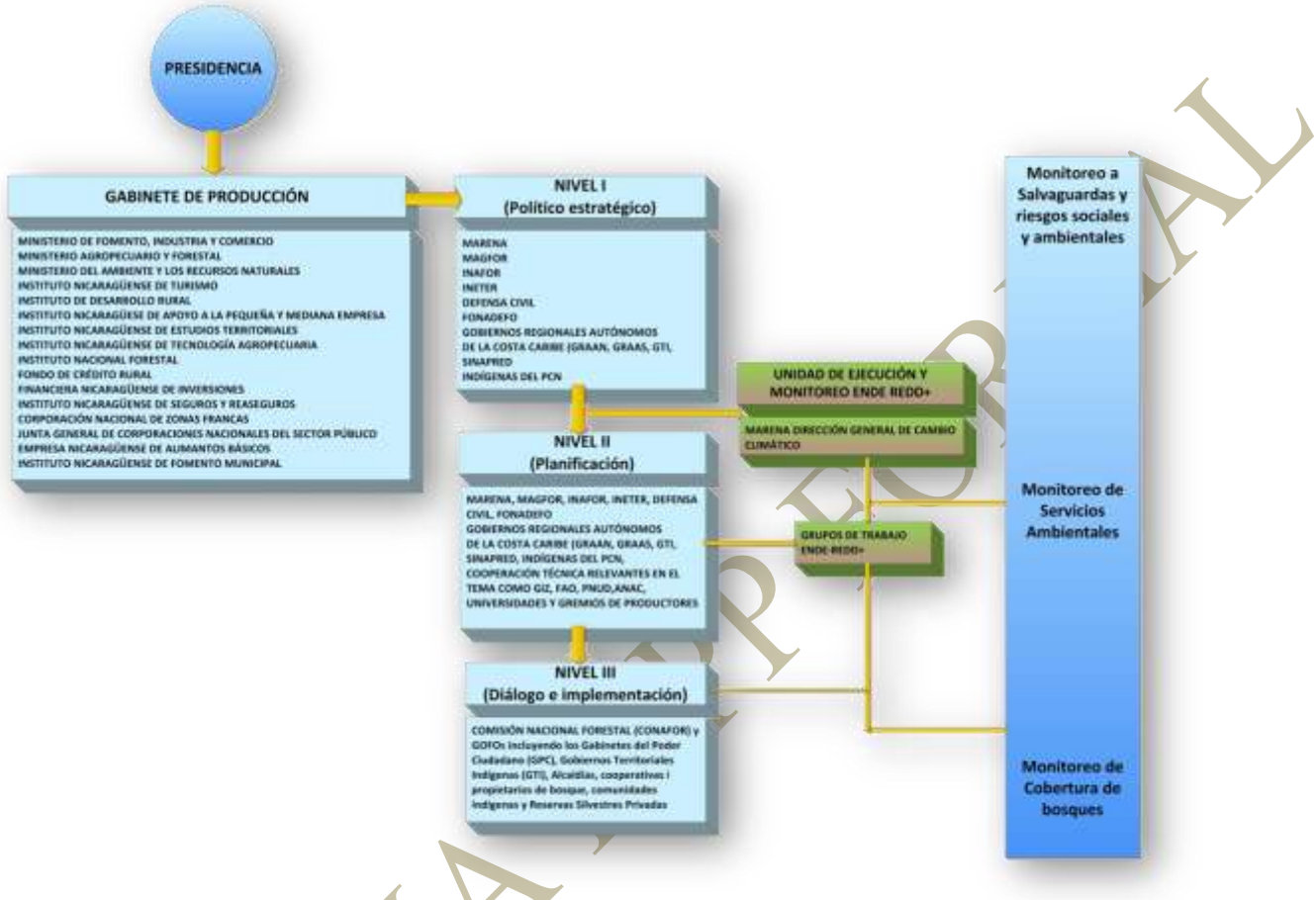


Figure 3. Functional Outline for the readiness phase of the ENDE REDD+

TABLE 2: Current and proposed specific functions and responsibilities of the working group members, in order to achieve the objectives of each component of the readiness phase.

Level	Authorities	Function Descriptions
1	MARENA, MAGFOR, INAFOR, INETER, CIVIL DEFENSE, SE- SINAPRED, representatives of the GTI, Network Representatives of the indigenous Peoples PCN, FONADEFO, AMUNIC, Regional Autonomous Governments of the Caribbean Coast (GRAAN, GRAAS).	MARENA focuses on the ENDE-REDD process, and along with MAGFOR, INETER, CIVIL DEFENS, FONADEFO, RAAN, RAAS and INAFOR, will make pertinent decisions to assist the readiness phase of the ENDE-REDD+, the process, conflict resolution and safeguard the political framework at its highest level. Level I must also coordinate and influence the activities and programs of the forestry, farming and as other relevant sectors.
2	ENDE-REDD Institutional technical platform formed by social and political specialists and operators of the MARENA, MAGFOR, INAFOR, INETER, DEFENSA CIVIL, FONADEFO, Autonomous Regional Governments	This platform will be the planning and technical agency specialized in ENDE-REDD+. In working groups, they must prepare the ToRs, technically review and evaluate the R-PP, monitor the ENDE-REDD strategy process and provide the pertinent Level 1 recommendations.

Level	Authorities	Function Descriptions
	of the Caribbean Coast (GRAN, GRAAS), relevant technical cooperation on the topic like GIZ, FAO, PNUD.	
3	GOFOs including the Citizen Participation Cabinets (GPC), Indigenous Territorial Government (GTI), the Mayor's Office, Forest coops and owners.	These are the implementation levels at the territorial level. According to section I, article 5 of Law 462 "Law on the conservation, promotion and sustainable development of the Forest Sector", CONAFOR is considered the consultation and coordination authority of the National Strategy to Reduce Deforestation and Forest Degradation. They will rely on the support of the territorial and national technical agency in the Governing Forest Committees (GOFO). The Citizen Power Cabinet (GPC), the Indigenous Territorial Governments (GTI), the indigenous communities and the forest owners, among others, will all be represented in the GOFO's.

The three levels of the ENDE-REDD+ platform previously described are incorporated into the forest sector social administration structure for participation and coordination, established by law in Nicaragua (Law 462 and regulations) or by administrative decisions. CONAFOR is the highest authority of forest coordination and is composed by the ministers of MAGFOR, MARENA, MIFIC, MHCP, the director of INAFOR, the coordinators of the autonomous governments of the RAAN and RAAS, the Nicaraguan Forest Camera and representatives of interested organizations such as the Association of Forest Engineers of Nicaragua, the associations of forest owners and environmental NGOs among others. In the ENDE REDD+ Process in the country, it will be the authority that reviews, approves and finally conveys to the Office of the President the political, strategies, administrative and financial decisions and proposals developed at the three levels of the platform and in the GTRE, to make them official and for final approval.

THE GTRE will be the participatory authority specifically dedicated to the ENDE-REDD+ relevant themes with a broader participation. This commission is in charge of preparing the political, technical, administrative and financial proposals related to the ENDE-REDD+ in a selective manner. The GTRE is composed of representatives from all three platform levels and will have two layers: (1) the Broad Group or Assembly which includes all the members of the GTRE and (2) the technical or territorial committees that will be created according to the topics of interest of the discussion (i.e. base line scenarios, MRV systems, incentive outlines, eligible ENDE-REDD+ measures, administrative and legislative implementation frameworks, social and environmental safeguards, specific challenges in the autonomous regions or indigenous communities, among others). All the institutions and people that can prove their interest or expertise in topics related to the management and conservation of forests, rural development and/or climate change in Nicaragua, can participate in the Assembly or Broader Group, in principle.

The GTRE will have a President elected by the assembly for a period of time to be defined in the Group's operational regulations. The President will chair the Group's meetings with the assistance of the Technical Secretariat of the ENDE-REDD+ Process (STRE). The other functions of the President will also be defined in the Group's operational regulations.

The Implementation Unit is assigned to MARENA and will be in charge of carrying out technical and administrative support of the process which will include coordination of meetings, workshops, studies

and all logistical processes. It will be in charge of coordinating all knowledge management and the flow of information about process, as well as of all communications. This unit will also have to procure, within the limits of the established budgetary framework, logistic and communication conditions that will allow participation of the key stakeholders to the process that live in remote areas of the country.

The Level 1 of the platform will call for the creation of the GTRE. This group will provide during its first sessions the operational regulations which will include the procedures of the committees discussions, the decision making process of the broad Group and of the committees and a conflict resolution mechanism. For the decision making process of the broad group, every attempt will be made to equally represent the interests of the main groups (i.e. national government, autonomous regional governments, forest owners, local and indigenous communities, and NGOs, among others. Technical cooperation and financial institutions will only be able to participate as observers and will not be allowed to participate in the decision making process.

The GTRE generates the fundamental proposals for the ENDE-REDD+ strategy and outline in the country and channels them through the Implementation Unit towards Level 1 of the platform and the CONAFOR. Any differences of opinions or topic propositions, where it was not possible to reach a consensus, will be clearly stated in the proposal. Differences will be addressed in a conflict resolution process based on the subsidiarity principle. This Producers Cabinet, along with the direction of the President of the Republic, will also contribute to minimize possible conflicts between State institutions. The SESA mechanism, will also be a determining instrument to resolve possible conflicts between other sector stakeholders.

Participants in the GTRE can also avail themselves of the forest coordination territorial authorities (regional, departmental, and municipal forest commissions, forest governance committees, GOFO's) and the coordination authorities of rural development planning (Producers Cabinet, rural sector GAPC's). This can take place through the participation of either the territorial commissions or committees or through the participation of their individual members in the GTRE.

To speed up the process, committees will work with initial proposals from outside technicians or consultants from the same public or private institutions that will participate in the GTRE process. The committees will discuss and decide on the content of the proposals until they arrive at an agreed upon version that will be presented in the Broad Group meetings (Assembly). The Broad Group meeting will decide on the acceptance of these proposals and their presentation to the Level 1 of the platform and CONAFOR.

The working draft of the GTRE and the schedule of activities of the committees, the GTRE meetings calendar, the territorial consultations, etc., will be established within the first months after the establishment of the GTRE. This group will convey, divulge and disclose the information, and involve the stakeholders in order to promote transparency, accountability, disclosure activities, and policy compliance of all the applicable safeguards.

5. Sub-national Outline

The Autonomous Regions of the Caribbean represent 62.7% of the forests of Nicaragua. Over 50% of potential ENDE-REDD+ areas of the country are concentrated in these regions.

TABLE 3. Forested Areas of the Autonomous Regions of the Caribbean

Department/ Municipality	ENDE-REDD+ Potential				
	Low (ha)	Medium (ha)	High (ha)	Very High (ha)	Total
RAAS	146,616.88	771,322.34	854,169.79	913,658.33	2,685,767.33
RAAN	303,023.02	1,534,051.88	801,987.70	560,770.48	3,199,833.07
General Total	449,639.89	2,305,374.21	1,656,157.49	1,474,428.81	5,885,600.40

The constitutional mandate in Article 89 states that "*The Atlantic Coast communities have the right to preserve and promote their cultural identity within national unity; endow themselves of their own forms of social organization and administration of local issues in accordance with their traditions. The State recognizes the Atlantic Coast's Communities communal land tenancy of property and equally recognizes their right to enjoy, use and exploit the water and forests of their communal land*". Article 180 of the constitution guarantees the validity of communal forms of property to the indigenous peoples and ethnic communities of the Caribbean Coast of Nicaragua. Law 445 in Article 24 also states: "*The State must recognize the rights of the indigenous and ethnic communities to the land that they traditionally occupy. Likewise it recognizes and guarantees that these lands cannot be alienated, embargoed or claimed"*. Article 25 also states: "*In the contracts on the exploitation of natural resources of indigenous and ethnic communal land, the State will recognize ownership rights of the community of the land or territory where they live*". Finally, Article 61 states that: "*Land Rights of indigenous peoples are constitutional rights"*. Furthermore, Nicaragua is signatory to the *United Nations Declaration of the Rights of Indigenous Peoples and Convention No. 169 of the ILO* and as such, respects and contributed to its compliance.

The National Development Plan for the Caribbean Coast proposes an integral human development model, in harmony with the culture and the geography of the Caribbean, which includes all three regions, that will strengthen the cultural identity and an equitable increase of economic growth, via three axis: i) increase the economic wellbeing for the communities of the Caribbean coast, ii) contribute to the equitable, sustainable and harmonious economic transformation between human beings and nature; and iii) strengthen the autonomous institutions to guide human development.

Since 1987 Nicaragua has been transforming its public administration model where it specifically defines the Autonomous Regions and the Municipalities as administrative authorities of their territories. This model has been maintained since then and has lead to a strengthening of the municipal and regional autonomous regimes while carrying out their functions and specific and constitutional powers established by law.

With this in mind, the technical authorities of the autonomous regions have prepared an implementation proposal with a SUB-NATIONAL focus, within the ENDE-RED+ readiness phase, which is being negotiated in the REDD+ processes framework, conventions and international agreements, while taking into consideration the State's proposal on the necessary conditions required for the implementation readiness phase of the REDD+ process within the ENDE framework, which is being coordinated and directed by the Ministry of the Environment and Natural Resources (MARENA).

The RAAN[26] through the CCF-A[27], as the coordination authority on the forest and environmental resources activities to be developed, has defined an agenda in which it intends to develop Regional proposals aimed at developing climate change activities, update the EDFOR-RAAN[28], present proposals within the REDD+ framework and contribute to the ENDE, as well as define proposals such as the community foresting strategy and others relevant to the preservation and protection of natural resources and the environment.

This proposal summarizes legal and institutional components of the country, as well as the will of the State to coordinate efforts in order to achieve results during the implementation of the different policies and strategies of the country focused on reducing the effects of deforestation and forest degradation.

The objective of the sub-national outline is to create and strengthen institutional and inter-sectoral capabilities to reduce Deforestation and Forest Degradation in Autonomous and Indigenous Territories.

In order to implement the ENDE-REDD+ at a national level, it is necessary that the State, through its executive authority, develop workflows linked to the administrative processes at the governmental levels defined in Nicaragua.

The readiness phase of the ENDE-REDD+ strategy takes into account the different branches of government, taking into consideration the regional, municipal and territorial levels of governments in the Autonomous Regions; articulating the national institutional effort with the technical and governmental instances there established, which have been, over the past eight years, developing and working within the framework of the specified laws established for these zones with special systems, an articulated administration with the different levels.

The sub-national outline suggests an implementation process coordinated at the regional level (CRAAN-CRAAS) and specifically embedded in their technical authorities such as SERENAs, where an agency or a capable and strengthened technical unit would be created to develop and implement readiness activities within the ENDE-REDD+ process within the ENDE-REDD+ framework, aimed at topics such as: i) strengthening institutional and governance spaces (CCF-A), ii) the agricultural frontier, iii) protected areas, iv) territorial reorganization, v) GTI strengthening, vi) implementation of pilot activities to reduce deforestation and forest degradation and vii) the necessary control and follow-up to corroborate the strategy's effectiveness, as well as the social, environmental and indigenous communities safeguards. In Section 2.b. the guidelines and strategic activities for the ENDE-REDD+ are broadened.

The autonomous authorities propose that the strategy should include a specific axis for the autonomous regions, that will foresee the development of activities at the different governmental levels, strengthening institutional capabilities, sector and forest owners capabilities, preparing that level of critical mass in the four governmental levels, that allows for social involvement in the deforestation and degradation activities.

The implementation of the sub-national outline of the ENDE-REDD+ should have a shared process in the administration of identified resources, so that the strategy, in the regions, is attached to competent authorities, created in order to prepare the regions for decentralization and regionalization processes and effective administration of powers and functions. In this regard, the creation of SERENAS in both regions has contributed to the fact that the regions are now able to administer processes that have typically been carried out at a central level and that did not contribute to the strengthening of the autonomous authorities' powers in the decision making process.

[26] RAAN: North Atlantic Autonomous Region
[27] CCF-A: Forest and Environment Advisory Committee.
[28] EDFOR-RAAN: Forest Development Strategy of the RAAN.

The implementation at the sub-national level must be based on the powers and capabilities of the Regional Autonomous Councils and Governments, in order to structure the work to be done with the different levels of government, and strengthen and create capabilities within the Indigenous Territorial Governments, located in agricultural frontier zones and protected areas within their territories.

The internal implementation of the regions must not distort the condition and goals proposed by the country in the ENDE-REDD+ process, where we would all have responsibilities, quotas and goals to reach within the country's ENDE-REDD+ results framework.

The strategic goals of the sub-national outline need to correspond with the guidelines of the national strategy, although there will be certain strategic actions to adapt the guidelines for their implementation in the autonomous regions of the Caribbean.

The Forest and Environment Advisory Committee CCF-A will be the authority of forest governance, acts as a forum for dialog and consultation for the stakeholders of the forest and environment sector, which includes the participation of public institutions, Regional Councils and Governments, private enterprises, regional universities, non-governmental organizations, territorial leaders, community leaders, forest sector community businesses of the Autonomous North Atlantic Region (RAAN). This dialog forum has functioned as a multi-sectoral agency headed by the Natural Resources Commission of CRAAN and the Natural Resources Secretariat of GRAAN (SERENA), and as a forum for consensus and technical advice in the environmental forest sector, created by decree by the regional council of the RAAN in 2003. Since then, the CCF-A has actively functioned with a sub-structural monitoring and follow-up operation, with sector integration activities. Strengthening the CCF-A in matters of human resources, computer systems, media, equipment and implementation will substantially contribute to generate conditions and mechanism to reduce deforestation and environmental degradation.

The CCF-A as an advisory authority in the RAAN has achieved goals that contribute to the development of the sector, the most relevant of which includes, influence the shape of development policies of the North Caribbean Coast, the most notable of which are: i)defining the Forest Development Strategy - RAAN. (EDFOR RAAN 2003),ii) the Resolution by the Regional Parliament on the RAAN forest sector organization, iii) the Creation of a community forestry component strategy for the EDFOR, iv) the establishment of a communal forestry model as a key focus of forest management by the indigenous communities of the RAAN, v) the program and project management after Hurricane Felix, vi) procedural agreements and planning in the RAAN forest sector, vii) the development of a RAAN climate change strategy, viii) the RAAN forest management plan

The ownership problem, the organization of titled territories and the need to strengthen the incipient territorial governments, have been combined to become one of the strategic factors that will be strengthened in order to reduce degradation of forests on indigenous territories.

In order for the communal and territorial governments to be strengthened, they must be considered as the official, unique and united counterparts in any type of political relationship.

The principles that guide the government and the administration of the indigenous territories are democracy, autonomy, multi-ethnicity, multiculturalism, self determination, solidarity, equality, respect the memory of our ancestors, no religious discrimination, territorial development, unity and constant communication between the communities.

The indigenous communities in the RAAN integrate inter-communal territories cemented in the historic alliances between communities. They are governed in accordance with their own traditions and customs and based on their self determination.

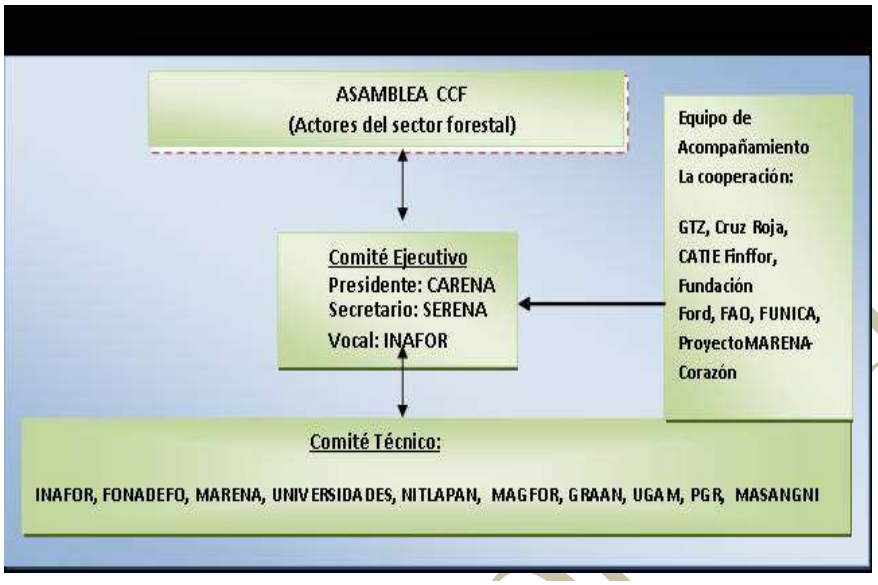


Figura 4. Structure of the Forest Advisory Committee of the RANN

6.- Activities required to strengthen the existing coordination agencies and mechanisms.

The specific activities to complete the institutional arrangements and strengthen the institutions and working bodies in the ENDE-REDD+ framework, are presented in section 2.b, particularly in the guidelines: Strengthen the institutional capabilities and the governing forestry structures (national, regional, municipal and indigenous territories)

Four areas or needs have been identified in order to complete component 1a. At the end of this section the budget is presented.

1. Management of the Execution Unit of ENDE REDD+

This small team will be in charge of coordinating and assisting the national and sub-national ENDE-REDD+ readiness process (R-PP) and therefore support the formation of the ENDE.

The amounts include meetings (regional, community and territorial) and the copying and distribution costs of the technical, sectoral and inter-institutional meetings. They also include activity expenses for the preparation of advance reports, event and agreement records, among others.

2. Working Group Contracts.

In order to properly monitor the activities it will be necessary to hire minimum personnel (2 people) to tend to the process, one person will have administrative responsibilities and the other will support the communication and dissemination processes. Section 1c. addresses payments to the executive unit or secretariat of the ENDE-REDD+.

3. Management of the working levels I, II and III, and strengthening of the capabilities and performance of the actors relevant to the strategy. The functions of each of the members of the working levels will be defined in detail in these regulations.

4. Establish a claims and compensation mechanism that will be operational in the early implementation phase of the R-PP Programmed en 2.b, guideline 1.

5. Sub-National Outline.

   Feasibility study for the implementation of the sub-national outline, and participation of the Indigenous Territories Governments in the ENDE REDD+ outline. This study is budgeted in section 2.b

TABLE 4: National Management Arrangements Activities and Budget Summary of Readiness 1a

Main Activity	Sub. Activity	Estimated Cost (in thousands of US$)				
		2012	**2013**	**2014**	**2015**	**Total**
REDD Working Group Management	Meeting coordination and assistance (for example, GT actors travel)	$10	$20	$20	$20	**$70**
	Report dissemination	$10	$10	$10	$10	**$40**
	Equipment and materials	$20	$5	$5	$5	**$35**
	Transportation	$30	$6	$6	$6	**$48**
Working Group Contracts.	Working Group Honoraria	$50	$150	$150	$150	**$500**
Sub-National Outline.	Operations	$20	$40	$40	$40	**$140**
Total		**$140**	**$231**	**$231**	**$231**	**$833**
National Government						**$0**
FCPF		**$60**	**$60**	**$60**	**$20**	**$200**
UN-REDD Program (if applicable)						
Another Development Ally 1 (name)						
Another Development Ally 2 (name)						
Another Development Ally 3 (name)		$80	$171	$171	$211	$633

1b. Information Sharing and Early Dialogue with Key Stakeholder Groups

[Keep this box in your R-PP submission]

Standard 1b the R-PP text needs to meet for this component:
Information Sharing and Early Dialogue with Key Stakeholder Groups:

The R-PP presents evidence of the government having undertaken an exercise to identify key stakeholders for REDD-plus, and commenced a credible national-scale information sharing and awareness raising campaign for key relevant stakeholders. The campaign's major objective is to establish an early dialogue on the REDD-plus concept and R-PP development process that sets the stage for the later consultation process during the implementation of the R-PP work plan. This effort needs to reach out, to the extent feasible at this stage, to networks and representatives of forest-dependent indigenous peoples and other forest dwellers and forest dependent communities, both at the national and sub-national level. The R-PP contains evidence that a reasonably broad range of key stakeholders has been identified, voices of vulnerable groups are beginning to be heard, and that a reasonable amount of time and effort has been invested to raise general awareness of the basic concepts and process of REDD-plus including the SESA.

Please provide the following information:

- **Pre-consultation activities to date and additional activities planned under this component, to contribute to the development of the R-PP in less than five pages**
- **Provide a brief summary activity and budget and funding in Table 1b (detailed budget data and funding table go in Component 5);**
- **If necessary, attach a work program or draft input to ToR for activities to be undertaken in Annex 1b.**

Add your description here:

Exchange of Information and Initial Dialog with Key Groups of Stakeholders

1.- Levels of Participation and Cooperation

Defining the key stakeholders and necessary institutional arrangements, including the roles, functions at the different decision making levels, will assist the dialog and participation processes, in order to achieve the social constructs of the ENDE-REDD+ strategy. To achieve this social construct, work will be focused on awareness, concept application, valuing perceptions, persuasion, gather and adapt participants expectations in the ENDE-REDD+ approach. This process will be facilitated following the roles and functions assigned or desired by each of the key stakeholders. Furthermore, we hope to create conditions and if possible agreements with key stakeholders to assist the execution of the ENDE-REDD+.

Nine groups of stakeholders have been identified, that due to their mandate and interests, must participate and contribute in the creation of the strategy during the readiness phase: i) Governmental Actors at their different levels, Forest and agro-forest communities, iii) Private platform of forest owners, iv) Agricultural production sector, v) Informal and Illegal commerce and land sector, v) Academic Sector, vi) NGOs, represented by ANACC (60 organizations), vii) External Cooperation, viii) Media ix) Military and national security institutions.

In this map of stakeholders, priority in the dialog process, will be oriented towards empowering forest and agro-forest communities, territorial Governments and indigenous communities' authorities, peasants who own forests, private organizations owners of forests and their allied organizations, in the interest of reducing deforestation and forest degradation. Likewise, a guided persuasive dialog will be carried out with production sectors, that will be able to align themselves with the interests of the ENDE REDD+ strategy, for example, the cattle ranchers sector.

Early identification of the largest number of stakeholders, will assist the participative formation process of the ENDE REDD+ form the beginning. Through workshops it will be possible to develop a broad dialog process, as well as, comply with the requirements of the Carbon Fund and of World Bank, in the formulation of the RPP, the readiness phase of the strategy and the Environmental and Social Strategic Analysis (known as SESA in English).

The Key Stakeholders Map will be completed during the readiness phase of the ENDE REDD+, as well as identify more clearly the direct and indirect impact form the topics of the strategy, that can be anticipated and this way define and structure the best forms of participation in the preparation and execution phase . Eventual new stakeholders that can be integrated are the senior citizen councils, local women's organizations, churches, teachers and non-governmental organizations, aside from those already identified.

The different identification mechanisms and characteristics of the stakeholders have not been standard, they have been very diverse, from those having a historical relationship or a legal mandate with environmental issues, to stakeholders that have been recently identified at the territorial level, in the early dialog workshop processes. The ENDE-REDD+ preparation phase will attempt to define operative strategies better suited to achieve the objectives of the strategy.

This stakeholders map is will be used to identify their main functions, interests and levels of participation in the ENDE REDD+ readiness phase.

TABLE 5: Map of Stakeholders for the readiness phase of the ENDE REDD+

Stakeholders Group	Actors	Mandate/Interests	Roles and Functions for the readiness phase of the ENDE REDD+
Governmental Entities	National Government. MAGFOR, MARENA, INAFOR, INTA,	Named and headed by the President of the Republic and formed by the State institutions linked to agriculture and forest sector development	Monitor the results of the readiness phase of the strategy through Level 1.
	Regional Governments GRAAN – GRAAS	Enforce the mandate of the Regional Government (Law 28 and 445). Channel and develop resources that benefit the ethnic communities and indigenous peoples of the Caribbean Coast. Safeguard the rationed use of the regions RRNN.	Sub-national outline for ENDE-REDD+ implementation budget, including the dialog and consultation process with indigenous territories. Facilitate areas of inter-institutional coordination (CCFA) for the management of implementation mechanisms of the ENDE.
	Municipal Governments (Represented by AMUNIC)	Legal Mandate (Law 40) Promote municipal development. Respond to the demands of the people of the municipality. Facilitate management processes	Participate in the readiness phase of the ENDE. Recognizes and accepts the ENDE as a management tool for the conservation and rehabilitation of forests in the municipality and

Stakeholders Group	Actors	Mandate/Interests	Roles and Functions for the readiness phase of the ENDE REDD+
		of the Municipality.	integrates it into the Environment and Development Municipal Plans.
	Indigenous Territorial Governments	Manage and control their territories natural resources, protected by Law 445. UN Declaration 169 and the ILO convention. Claim a leading role in the governments plan an in the administration of RN.	Is a part of the three levels (I, II y III) and of the readiness phase of the ENDE. They are fundamental for the readiness phase of the ENDE, because they represent the forest owners communities. It is necessary to widen their participation in the readiness and implementation processes of the ENDE. It is necessary to strengthen the internal organization of the traditional and territorial authorities. Create and strengthen human capabilities to implement the ENDE.
Agro-forest Communities	Indigenous communities of the Caribbean and of the North Pacific Center	They own most of the existing forests in the country. UN Declaration 169 and the ILO convention. Improve the social conditions of the communities.	They Actively participate in the social construct of the ENDE, during its readiness phase. They should be allowed to manage complaints and reports in the readiness phase of the ENDE.
	Peasant Population		
	Women's Associations of Indigenous Territories		
Private Platform of Forest Owners	Private Reserves Network	Promote the development of the private reserves with a business focus.	They have participated in RPP dialog workshops and their approach has been considered in this version and will be incorporated in the readiness phase of the ENDE.
	Businesses, Forest Owners and Plantations Forest	Carry out business in the rural and environmental sector	Direct private investment down the lines of the ENDE strategies.
Farm Production Sector	UNAG	Strengthen Farmers and Cattle Ranchers' unions. Support small and medium producers with integral productive programs and projects. Improve the standard of living of the families and adoption of agro-ecological technologies.	Participation in the readiness phase of the ENDE REDD+, and the process to develop awareness of the forest environmental problems. Organize and strengthen agricultural producers in the ENDE areas. Carry out manufacturing experience exchanges between promoters of the PCaC with community leaders .
	Cattle Ranchers		
	Coffee Producers		
	Farmer to		

Stakeholders Group	Actors	Mandate/Interests	Roles and Functions for the readiness phase of the ENDE REDD+
	Farmer Program (PCaC)		
Informal and Illegal Sector	Illegal Timber Merchants	Extract the largest quantity of wooden resources; their impact is in detriment of the conservation of forest resources.	Invite them to participate in building the readiness phase of the ENDE REDD+. Prepare registries of the infractions and their impact on the forest. Apply the legal framework rigorously. Exert more control and authority over the wood value chains, cattle and basic grains. Intervene with the ecological battalion to avoid land invasions.
	Speculators y Landowners	Amass the largest extension of land possible.	
	Settlers and invaders of Indigenous land	Seize land no longer under owners' control.	
Academic Sector	UNA, UNI, URACCAN BICU, others	Provide knowledge and experience in technological research and innovation for mitigation and adaptation to climate change. Student academic training	Actively participate in the readiness phase of the ENDE REDD+, methodological support aimed at technological research and innovation programs and/or project knowledge management, biodiversity resources monitoring in priority ENDE areas. It is necessary to strengthen the education of human resources to improve the effectiveness of the ENDE.
NGO, represented by ANACC (60 organizations)	C. Humboldt, CADPI, MASAGNI, Christian Medical Action, FUNDENIC, Fundación del Rio, ALISTAR, IPADE, others	Administrate and channel external cooperation resources to execute social and community health projects in consultation with and with authorization from the communities, in a transparent and legitimate way with their direct involvement in every phase of the project, which includes decision making power in the management of financial resources.	Support and integration in processes and actions within the ENDE framework. Participation and involvement in coordination processes of ENDE activities. Involvement in direct implementation ENDE activities according to its objectives. Contribute to the ENDE monitoring systems.
External Cooperation	United Nations Agencies, European Union, GIZ, FAO, Cooperation Bilateral.	Administer and channel cooperation resources towards reducing deforestation and forest degradation. Promote ENDE within the cooperation.	Administer external resources to support the ENDE implementation. Regulate and monitor projects with external cooperation funds insist on the creation of legal instruments. The cooperation projects must adjust to the ENDE guidelines.

Stakeholders Group	Actors	Mandate/Interests	Roles and Functions for the readiness phase of the ENDE REDD+
Media	Written, Radio, Others	Inform the citizens. Promote discussions about environmental protection. Help monitor environmental and social issues.	Promote and disseminate the implementation of the ENDE Strategy. Report and follow up on crimes and non-compliance of environmental laws within the RBB. Keep the media informed of the ENDE Strategy activities of the Produces Cabinet .
Military and national security institutions	Police	Safeguard order and public safety. Protect ans support the actions of State institutions. Investigate crimes against the environment.	Assist the consultation process and reporting of forest environment crimes. Support the organization process of the indigenous territories Support surveillance and control in ENDE priority areas. Provide protection and security to the physical integrity of public officers that are carrying out their functions in difficult and insecure territories.
	Nicaraguan Army	Safeguard the defense and sovereignty of the national territory. Support the protection of the natural and cultural patrimony of Nicaragua. Support the fight against illegal activities.	Integrate within the ENDE readiness and implementation process. Establish Check Points in conjunction with the MARENA, INAFOR and PN, Regional Governments and GTI. Implement surveillance and control activities by the Ecological Battalion in priority forest areas. Exert pressure on offenders of the environmental and forest laws in force. Carry out identification, prevention and crime fighting patrols in priority forest areas. Support law compliance and enforcement in cases of land invasion, including TI. Provide security to the physical integrity of officers that are carrying out their functions in difficult and insecure territories.

This preliminary stakeholders list will serve as a base to invite the different organizations and institutions involved in dialog, consultation, training and knowledge management activities, among others, that will be developed during the readiness phase of the strategy. Likewise, it will be useful to guide a balanced participation of vulnerable groups, particularly women, in the different proposed activities.

In this list we will identify and define the interests of those stakeholders that must be consulted , paying special attention to the communities that depend on the forests, to indigenous populations, and to marginalized rural communities.

For some stakeholders platforms, such as ONGs, the media, academic institutions and the production sector, it is important that in this ENDE-REDD+ readiness phase, the representation mechanisms be defined, in order for them to witness how they will be represented in the work process, be it as a network or individually.

During the dialog and consultation process, for each workshop, MARENA will prepare a matrix that will reflect the different topics discussed and the input obtained from the different participants, highlighting the participation and inputs for their subsequent verification in the proposed strategy. This matrix will be later shared with all the participants and will become part of a broader communication strategy, during the readiness phase of the ENDE-REDD+. The matrix must also show how these contributions were taken into account.

2. Dialog Process

The dialog is being held at different levels, Governmental entities and in different territories of the country. In this context and through the work carried out by MARENA, we have made advances in the communication flow management and cordial relations with the indigenous communities. This is witnessed in several ways, among them, the BOSAWAS reserve management plan update, accepted by the GTI. The creation of methodological and monitoring tools used by the indigenous leaders advances, but the dialog and participative consultation continue. There are stakeholders who promote dialog, while others it is necessary to force the dialog with others.

Essential elements of the sub-national outline have been proposed in the advanced dialog framework between the National Government and the Regional and Indigenous Territories Governments; Workshops were also carried out to present this outline to the regional representatives with the participation of key stakeholders from all three levels of this readiness phase of the ENDE-REDD+, including not only national and regional institutions, but local NGOs, cooperation agencies (GIZ) and GTI representatives, as well as other interest groups. As a result of the dialog, a series of strengths and weaknesses have been identified, that will be an important starting point to design the strategy.

Recently a dialog took place with 7 indigenous territories, legitimate owners of the forest areas of the main reservation of the country, through 12 workshops, many of which took place in their own territories. Despite these dialogs, the level of knowledge of the indigenous community authorities about the REDD is very limited, therefore it is necessary to deepen their knowledge form a conceptual point of view, in the institutional arrangements in which they are participating and the potential benefits to them under this ENDE-REDD+ initiative.

As for the institutional arrangements, the existing arrangements with the Autonomous Regions will be used based on the institutional legal instruments of Law 28[29], Law 445[30], among others mentioned below: 1) Communal Assembly, meeting of community members, gathered to make decisions on

[29] *LAW* No. *28* "AUTONOMY STATUTE OF THE ATLANTIC COAST REGIONS OF *NICARAGUA*" DECREE A.N. Nº 3584 of 2003, and it regulations.
http://legislacion.asamblea.gob.ni/Normaweb.nsf/%28$All%29/878312CA9631B9F60625723400675DDB?OpenDocumenthttp://legislacion.asamblea.gob.ni/Normaweb.nsf/%28$All%29/878312CA9631B9F60625723400675DDB?OpenDocument

[30] Law No. 445 COMMUNAL PROPERTY SYSTEM LAW OF THE INDIGENOUS PEOPLES AND ETHNIC COMMUNITIES OF THE AUTONOMOUS REGIONS OF THE ATLANTIC COAST OF NICARAGUA AND OF THE BOCAY,COCO, INDIO AND MAIZ RIVERS.
http://www.manfut.org/RAAN/ley445.html http://www.manfut.org/RAAN/ley445.html

community interest issues, according to their customs and traditions; 2) Territorial Assembly, meeting of the traditional communal authorities that form a territorial unit, gathered to make decisions on territorial issues, 3) others stipulated by the Autonomous Regions.

For the Caribbean Coast (RAAN and RAAS) focus groups were assigned[31], both of whom will serve as technical advisors, to adapt the proposals and activities to the region and to the indigenous communities , as well as act as liaisons and spokesmen of the group of Caribbean authorities within the ENDE-REDD+ platform.

RAAN Focus Group: Is the National Resources Commission (RRNN) of the Autonomous Regional Council of the North Atlantic (CRAAN), and the secretariat of the RRNN of the Autonomous Regional Government of the North Atlantic GRAAN (SERENA-RAAN).

RAAS Focus Group: Is the RRNN Secretariat of the Autonomous Regional Government of the South Atlantic (GRAAS) denominated (SERENA-RAAS).

The authorities of the autonomous regions of the Caribbean and of the Governments of the indigenous territories have been informed and have participated in the process to define this RPP through local workshops, ensuring their participation in the ENDE decision making levels (I, II y III). Likewise they have made strong statements about their perspective and their expectations[32]. They have also defined how to follow up on the results obtained, in other forms of dialog or consultation that will allow the information to flow to and from the indigenous communities.

For the other regions of the country the participation forum should be widened so that everything related to the ENDE/R-PP can be presented and discussed in an assertive way. Some of these means could be: ONG Associations, Universities, municipal associations, coops, Association of forest owners, among others.

Also, it is suggested that during dialog and consultations, discussions and decision making, the gender focus and the climate change risk be taken into consideration in a transversal way in the readiness and strategy development phase of the ENDE-REDD+.

The R-PP formulating executive team has had several consultative and technical meetings that have provided input for this new version of the R-PP. It is important to point out that thanks to the financial and technical support of the German Collaboration for Development (GIZ) we have been able to begin the construction of the preparatory plan or RPP as well as its improvements.

Nevertheless, the Government, aware that this effort in not enough and that it is necessary to make decisions from the local level to the national level within the ENDE-REDD+ national strategy guidelines, will not be able to produce a conclusive document on the steps that Nicaragua must implement in order to confront the current challenges of deforestation and forest degradation. This new version of the RPP will serve as a guide of the fundamental topics that must be address during the dissemination, consultation and design of the ENDE in the country.

Some of the events that MARENA has carried out at a national level under the ENDE-REDD+ creation framework are described next.

[31] Workshop Report: Basic Training and pre-consultation of the National Strategy to Reduce Deforestation and Forest Degradation, 22 and 23 of November, 2010. 14 p.
[32] More details in the early dialog workshops, part of the RPP process.

TABLE 6: Events carried out at a national level within the readiness framework of the ENDE REDD+

Date	Meeting	Objectives	Main Actors	Main challenges/comments
May 2010	Initial standards of the REDD process in Nicaragua	Define roles y functions de los of the different consultation and coordination levels for the RPP. -Broaden the participation methodology in the readiness phase, and the official and updated information requirements for the creation of the RPP.	State institution representatives (INETER, MARENA, INAFOR, MAGFOR), Regional Government representatives (GRAAN, GRAAS), NGO representatives(…) and German Technical Collaboration (GIZ).	It is necessary to have at least three levels of participation during the design of the ENDE Strategy (Political level, Technical level and popular consultation level). The challenge will be to be able to coordinate the different approaches and proposals to achieve an agreed upon ENDE in the territories.
16-18 of June. 2010	The World Bank's technical mission	Evaluate the technical and fiduciary conditions to initiate the **donation of $200,000 for the REDD preparatory phase in Nicaragua.**	Central WB Team, national WB team, "Proyecto Corazón", Senior Directorate of MARENA e INAFOR, and the Forest Advisory Committee (CCF-A).	This donation will help improve the RPP proposal and socialization at a national level. This donation is not yet available, which is why Nicaragua must seek additional funding to initiate the readiness process of the RPP.
July 2010	Official start of the RPP preparation	-Present the progress of the ENDE process at a national level. -Formalize the R-PP preparation, foundation document for the ENDE. -Present the formulating team of the ENDE/ R-PP.	State institution representatives (INETER, MARENA, INAFOR, MAGFOR), Regional Government representatives (GRAAN, GRAAS), SERENA, NGO representatives(CADPI) and German Technical Collaboration (GIZ).	The R-PP document must take into account the national reality and that of the Autonomous Regions, and at the same time comply with the technical requirements of the template (format) of the FCPF. At the moment we count on a minimum budget provided by GIZ to start this phase, which is one of the limitations to opening the dialog space in the RPP preparation at a national level.
17-19 of Nov. 2010	The World Bank's technical mission	Support the formulation of the Readiness Proposal Plan for REDD en Nicaragua.	Central WB Team, national WB team, RPP formulation team, Senior Directorate of MARENA e INAFOR, and the Forest Advisory Committee (CCF-A).	
22-23 of Nov. 2010	Basic training and pre-consultation on the draft document RPP (version 1)	Instruct the participants on the terminology used in topics of emissions reduction due to deforestation and degradation (REDD+). Introduce the members of the ENDE national platform, that are duly knowledgeable about the relationship between forests and climate change, as well as the basic REDD+ terminology and related policy and strategy formulation. Carry out an RPP pre-consultation to improve the document and the consultation process definition as a next step.	State institution representatives (MARENA, INAFOR), Regional Government representatives (CCF-A, GTI, CRAAN, GRAAS), Non-Governmental Organization representatives (FUNDENIC, NITLAPAN-UCA, URRACAN-IREMADES) and German Technical Collaboration (GIZ).	-Design a participation, dissemination and consultation plan with the local stakeholders at a national level. -Reinforce the support of this process by the regional Government of the RAAN and RASS . -A key matter to plan will be the participation of all the forest owner indigenous communities. -A limiting factor is that the funds to carry out consultation at the three levels of the ENDE platform (political, technical and popular or civil society) are not yet available.
11/30/2010	Dialog between the RPP formulating team and SINIA-	-Introduce the REDD mechanism and report on the RPP preparation progress. -Review the equipment needs	SINIA technical equipment and RPP formulation team members.	- SINIA can support the initiative to formulate the REDD national monitoring system. -SINIA can support the variable and

Date	Meeting	Objectives	Main Actors	Main challenges/comments
	MARENA	necessary, coordinate with territorial nodes, as well as training and education nodes required during the REDD implementation phase in the country.		methodology standardization workshops (with a focus on environmental and forest indicators). -During the consultation process it is important to do it through the network of institutions associated with SINIA.
12/09/2010	Presentation of the REDD+ multi-criteria model at a national level.	-Review the criteria used and the model deviations. -Review the necessary information to complete the analysis.	Members of the SINIA technical team, INAFOR (forest protection member) and members of the RPP formulating team.	-It is suggested to take into account other protected areas of the country within the indigenous communities (i.e. Mozonte) -SINIA will provide the missing information in order to complete the analysis or reference sources of the RPP.
January 2011	RPP review version 2	-Institutional review of the RPP version 2 to guarantee it will be formally sent to the FCPF of the WB.	Members of the General Management on Climate Change of MARENA and member of the RPP formulating team.	-In the following version more attention should be given to the effects of forest and agricultural fires. -The ENDE should be more closely linked to the topics of adaptation and climate risks.
February 25 2011	Meeting with part of the RPP formulating team	- Review the Annual Operational Plan of the REDD CCAD-GIZ project and its relationship with the current RPP. -Prioritize activities for 2011 and define the budgets.	Part of the RPP formulating team, representatives of the GIZ-Nicaragua, and a representative of the REDD CCAD-GIZ program.	-The activities suggested in the RPP should be reviewed as well as the 2011 Annual Operational Plan (POA) activities, to avoid duplication, both frameworks should be linked and the sources of financing should be adequately separated.

TABLE 7: Events carried out at a national level within the Readiness Framework of the ENDE REDD+ in 2012

Date	Objective	Participants	Actors	Results	Agreements
13, 14 April 2012	Present the national experience with the forest deforestation rate calculations and methodologies. Summarize and make recommendations on a unique system for deforestation calculations. Review institutional capabilities to monitor forests and land use changes. Analyze the existing national information, gaps and needs for a multi-level, multi-purpose forest monitoring system in the current national circumstances.	10 women, 30 men	Institutional representative, technicians, specialists, university representatives, NGO (ANACC)	Identify the methodology for calculating deforestation rates, mapping of specialists, information gap identification and pertinent activities to fill the gaps.	Present the Report Socialization workshop materials Report review and adjustments Executive summary presentation to level 1 Working session to update the National POA with the action plan Presentation of the POA with its established execution mechanisms
15	Rapidly analize the causes of	10 women, 30	Institutional	Identification and	Bing to the table the

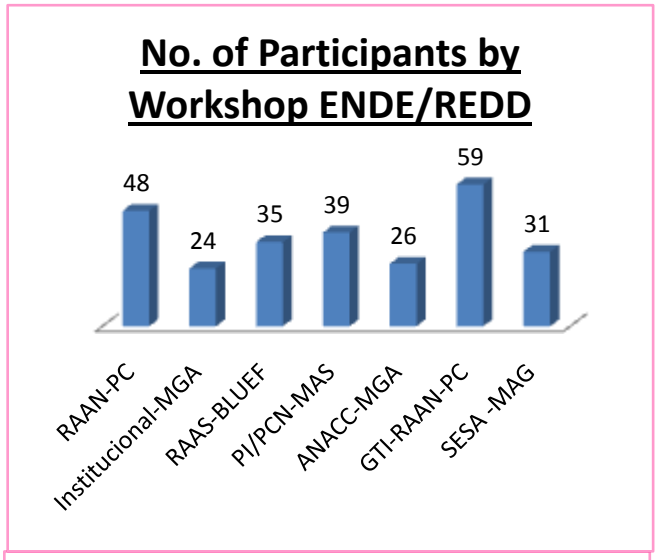
Date	Objective	Participants	Actors	Results	Agreements
April 2012	deforestation and forest degradation and establish a hierarchy matrix and a preliminary proposal of solutions.	men	representative, technicians, specialists, university representatives, NGO (ANACC)	classification of the direct and underlying causes of deforestation and forest degradation.	ENDE topic at PRORURAL to coordinate the country's efforts. Bring ENDE to the Regional Councils of the Autonomous Regions. Coordinate ENDE with the Caribbean Coast Development strategy. Foresee RPP approval or rejection scenarios.
4/17/2012	Socialize inputs for the ENDE readiness through dialog and the ENDE sub-national outline.	13 women 35 men	Municipal Government, Regional Government, Indigenous Territory Government, National NGO, Indigenous NGO, International, NGO University/Academia, Private Sector, others.	Initiate the dialog and technical coordination process between the Autonomous Region of the North Atlantic and the national platform.	Continue the readiness process of the sub-national outline with a focus on Indigenous Territorial Governments and carry out ENDE consultations with the GTI, CRAAN, and Municipal Councils.
4/19/2012	Socialize inputs for the ENDE readiness through dialog for the review and adjustments of the version 5 of the National Strategy of Avoided Deforestation / R –PPA document.	9 women 15 men	Regional Government, Indigenous NGO, International, NGO Environmental NGO, University/Academia, Private Sector, others.	Establish the coordination and integration of key stakeholders in the review and adjustments process of the 5th version of ENDE and sub-national outline.	Implement the CONSULTATION AND EARLY DIALOG PROGRAM OF THE ENDE STRATEGY. The Alto Wanky Bocay GTI can participate in the Masaya workshop on the 18th of May.
4/25/2012	Socialize inputs for the ENDE readiness through dialog for the review and adjustments of the version 5 of the National Strategy of Avoided Deforestation / R-PP	14 women 21 men	Municipal Government, Regional Government, Indigenous Territory Government, Environmental NGO, University/Academia.	Establish the coordination and integration of the RAAS with regional authorities in the readiness phase of ENDE and the sub-national outline.	Continue the readiness process of the sub-national outline with a focus on Indigenous Territorial Governments and carry out ENDE consultations with the GTI, CRAAS, and Municipal Councils.
5/17/2012	Socialize inputs for the ENDE readiness through dialog for the review and adjustments of the version 5 of the	10 women 29 men	Indigenous Territorial Government National NGO,	Initiate the consultation process with the indigenous peoples	Integrate representatives of the PCN indigenous peoples in Level I and II of ENDE,

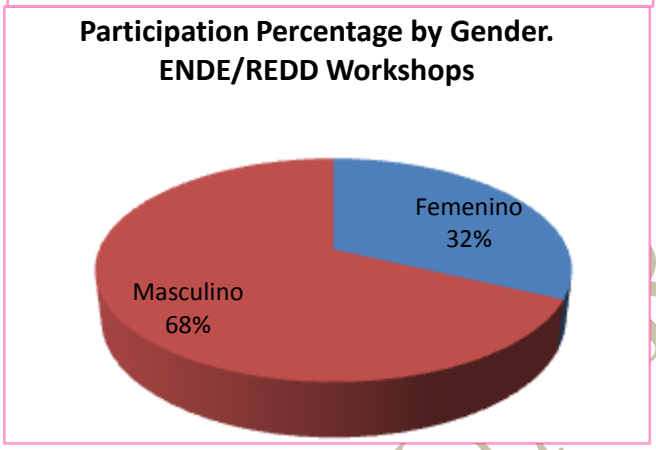
Date	Objective	Participants	Actors	Results	Agreements
	National Strategy of Avoided Deforestation / R –PPA document.		Indigenous NGO, .	of the Center North Pacific (PCN) for the ENDE readiness according to convention 169.	according to the agreement: One representative of each territory (Chorotegas, Dirigen, Masaya, Nicarao y Adiact-Agateite) for Level I and the same for Level II.
5/18/2012	Socialize inputs for the ENDE readiness through dialog for the review and adjustments of the version 5 of the National Strategy of Avoided Deforestation / R –PPA document.	10 women 16 men	Municipal Government, Regional Government, Indigenous Territory Government, National NGO, Indigenous NGO, International, NGO Environmental NGO, Universidad/Academia, Private Sector	Establish the coordination and integration of key stakeholders in the review and adjustments process of the 5th version of ENDE and the sub-national outline.	Implement the CONSULTATION AND EARLY DIALOG PROGRAM OF THE ENDE STRATEGY.
23-24 /05/12	Initial dialog with the Indigenous Territorial Governments to build in a participative way the Nicaraguan forest and climate change proposal.	13 women 35 men	Municipal Government, Regional Government, Indigenous Territory Government, International, NGO University/Academia, Private Sector, others.	Initiate the consultation process with the indigenous peoples (GTI) of the (RAAN) for the ENDE readiness according to convention 169.	Integrate representatives of the PCN indigenous peoples in Level I and II of ENDE, according to the agreement: A representative for each territory (Waspam, Puerto Cabezas, Triángulo Minero) for Level I as well as for Level II. Integrate the representatives of the PCN indigenous Peoples in Level I y II of the ENDE, according to the agreement: One representative for each territory (Waspam, Puerto Cabezas, Triángulo Minero) for Level I and Level II.
5/25/2012	Increase the capabilities of the key stakeholders of the Social and Environmental Strategy Assessment (SESA), to support the ENDE/REDD+	11 women 20 men	Municipal Government, Regional Government, Indigenous	•Contextualize the public aspects de ENDE/REDD+. • Input generated for the R-PP in	Implement the CONSULTATION AND EARLY DIALOG PROGRAM OF SESA in the ENDE STRATEGY or

Date	Objective	Participants	Actors	Results	Agreements
	readiness phase.		Territory Government, National NGO, Indigenous NGO, International, NGO Environmental NGO, Universidad/Academia, Private Sector	component 2d. • Socialized SESA methodological process	Critical Route to 2015.
5/28/2012	Carry out the return and validation of results obtained during the early dialog workshops , with representatives of the main stakeholders and sectors linked to the preliminary readiness proposal of the National Strategy to Reduce Deforestation and Forest Degradation in Nicaragua (ENDE) "ENDE R-PP"	2 women 25 men	Municipal Government, Regional Government, Indigenous Territory Government, National NGO, Indigenous NGO, International, NGO Environmental NGO, University/Academia, Private Sector, others.	The participants have been informed about the reach of each one of the topics in the ENDE R-PP proposal.	The formulation team counts on the contributions and recommendations made by the workshop participants to be integrated into the ENDE R-PP document, which will be presented to the FCPF.

It is important to point out that many other initiatives exist on ENDE-REDD+ topics in the country, like courses, fora, symposia, sectoral dialogs, among others, where the challenges, threats and opportunities that Nicaragua and its public and private organizations will have to face in order to create an adequate ENDE-REDD+ readiness plan, and overall the role that the country's rural and indigenous communities will play in this process. These public activities on ENDE-REDD+ have mainly been organized by non-governmental authorities.

It is important to mention that the National Government as well as the non-governmental organization have had to date a common concern over what options should be followed to avoid the possible negative impact the implementation of ENDE-REDD+ measures may have at a local, territorial, regional and national level. This common concern is an opportunity to find synergies and key partners in the ENDE-REDD+ preparatory phase (RPP) and while building ENDE. Likewise, it represents an opportunity for the Government to coordinate efforts with an array of civil society institutions with the common interest of biodiversity conservation and the sustainable management of forest ecosystems.





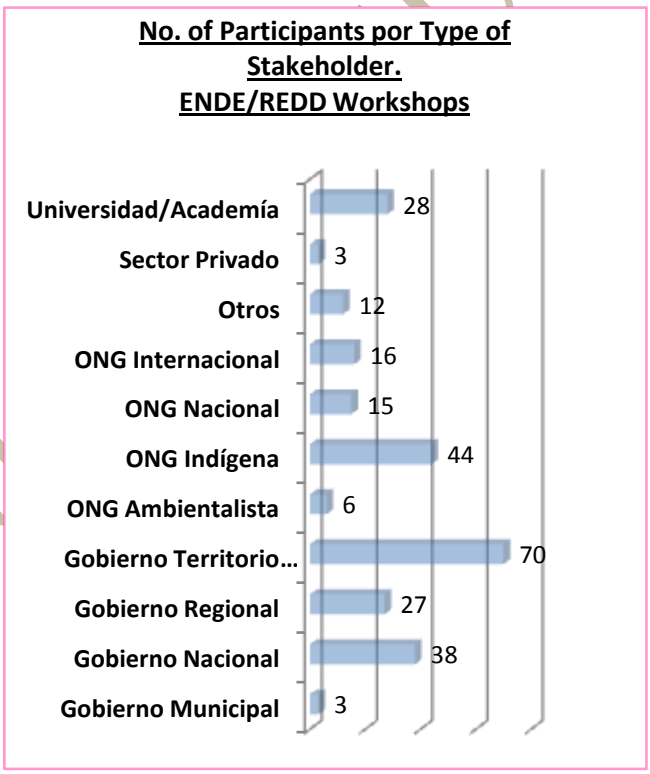


Figure 5. Early dialog workshop participants

A summary of the participants by type are presented next along with the main results and agreements achieved in the latest's dialog workshops carried out in the month of May 2012.

RESULTS

1. Initiated the dialog and technical-political coordination process between the RAAN, RAAS, PI-PCN and the national platform.
2. Establish the coordination and integration of key stakeholders in the review and adjustments process of the 5th version of ENDE and sub-national outline.
3. Initiate the consultation process with the Indigenous Peoples of the Center North Pacific for the ENDE readiness according to convention 169.
4. Initiated the consultation process with the indigenous peoples (GTI) of the (RAAN) for the ENDE readiness according to convention 169.
5. Socialized SESA methodological process.

AGREEMENTS

1. Continue the readiness process of the sub-national outline with a focus on the GTI, carry out ENDE consultations with the CRAAN, and Municipal Councils.

2. Integrate representatives of the PCN IP in Level I and II, according to the agreement: One representative by territory (Chorotegas, Dirigen, Masaya, Nicarao y Adiact-Agateite).

3. Integrate representatives of the GTI: One representative for each territory (Waspam, Puerto Cabezas, Triángulo Minero) for Level I and also in Level II.
4. Implement the EARLY DIALOG WORKSHOP PROGRAM AND SESA CONSULTATIONS in the strategy preparations.

Future event planning

As a result of these courses, MARENA has planned one round of early dialog workshops and other training activities that will continue while the R-PP is undergoing the formal revision. The following is a general plan for these activities which is contingent upon getting support from other ENDE-REDD funding partners in Nicaragua:

TABLE 8: Early dialog and training activities plan

Product	Activities	Dates
Completed Social, Strategic and Environmental work plan (SESA)	5 national workshops and hiring of three consultants.	June – August 2012
Awareness raising and training on Forests and Climate Change	2 national workshops and hiring of 3 consultants	June – August 2012.
Formulation of pilot projects on Forest and Climate change.	4 regional workshops and 1 national workshop, including payments for 3 consultants.	July – September 2012
Design of the Forests Monitoring System.	10 regional and national clinics, including 1 consulting firm.	August – December 2012.
Implementation of an information and communication platform on Forests and Climate Change	Consultations and workshops	July – December 2012
Formulation of Level I,II,III operative regulations.	Consultations and workshops	July – December 2012.
Forests and climate change capability strengthening for Levels I,II,III	Consultations and workshops	July – December 2012

The dialog and consultation workshops will be created using a methodology tool developed by UN_REDD in March 2012 titled: Guidelines on Stakeholder Engagement in REDD+ Readiness with a Focus on the Participation of Indigenous Peoples and Other Forest-Dependent Communities.

It is important to ensure that the methodology for the clinics opens dialog spaces that will allow the communities and organizations to provide feedback on their concerns and/or points of view with respect to REDD. This feedback should later be incorporated to the RPP. It is recommended to adapt the focus of the presentations (Make them short, appropriate for the audience in terms of format and language, Complicated technical terms should presented in layman terms) and increase sessions for participants discussion and feedback. It is recommended to organize the clinics in such a way that they become spaces for dialog about the problems, concerns and the ideas and expectations of the participants with respect to a future ENDE-REDD+ process.

3. Dissemination and communication strategy

The ENDE REDD+ readiness phase, as a negotiation process, requires an effective and agile communication strategy to support not only the readiness process, as well as other SEA related matters, but the grievance and complaints mechanism that should be implemented in order to improve the transparency of the process. Amongst the main elements for this strategy the following should be considered:

i. Publishing of the R-PP in the MARENA web page and its main hyperlinks.

ii. It is necessary that dissemination of information be proactive from the R-PP to the stakeholders map, and include the ability to send and request comments.

iii. MARENA should build a matrix based on comments received during the workshops and/or other sources and annex it to the R-PP. Information should include how MARENA interpreted each comment and how it incorporated it in the R-PP.

iv. MARENA will disseminate the workshop summaries carried out up to date, on the discussed topics, the proposals and the agreements and these should also be published on the institution's web page.

In order to assure a well-informed participation, it is important that validation and early dialog workshops be preceded by awareness workshops. It is understood that at this point validation refers to the early dialog with the key stakeholders on the different ideas, alternatives and options being developed in draft R-PP. According to REDD and FCPF procedures, for the current formulation phase of the R-PP, it is not recommended to carry out a formal or final validation because it is a process that will continue during the readiness phase of the REDD.

4. Recommended training topics

During a level 2 workshop of the ENDE platform , the main training topics needed for the REDD+ readiness process in the country were identified. Every training should be in line with capacity strengthening real needs according to the main participants and the scale of work (Local, territorial, regional and national). The topics proposed were grouped in seven general categories, this is a wide collection of topics that will later be revisited in the specific training plans. Some of the suggested topics were:

- Natural resources
  - Environmental services
  - Natural resource sustainability
- Conservation and production
  - Forest enrichment
  - Sustainable forest management
  - Reforestation
  - Protected areas and Indigenous Territories Government (GTI)
- Deforestation, Degradation
  - REDD Design and ENDE implementation
  - Adaptation topics
  - REDD+ and its applicability for indigenous peoples
  - Benefits of REDD+
  - Land us, loss of carbon stock (mitigation)
  - Baseline with a methodology adapted to indigenous people
  - Calculations and methodologies of biomass and carbon dioxide (CO_2)
  - Ecosystems modeling with a carbon focus
  - Basic concepts: scope, potential use, current use

- Governance
    - Territorial forest governance ENDE (RAAN y RAAS)
    - ENDE and indigenous territories
    - Laws and policies: environmental, forest y agricultural
    - Development plans: National (PNDH) and Caribbean Coast (PDCC)
    - Citizens duties and rights, indigenous people rights.
    - Readiness pilot programs and projects in communities (ENDE)
    - Promote ENDE at the territorial level and foster the CCF (RAAN) and CRT (RAAS)
    - Types of binding commitments in contracts with REDD+ (risks and opportunities) for the regions and territorial governments.
- Social and economic matters
    - Carbon rights of titled indigenous peoples
    - Freedom of participation and self determination
    - Free, prior and informed consent
    - Inter-cultural sustainability indicators
    - Methodology consulted with indigenous peoples as established in Law 445, convention 169, Law 28 and political constitution
    - Traditional knowledge and customary use of the forest (Right – CBD Art. 8 and 10e)
    - Organizational strengthening
    - Training of instructors (promoters, diplomas or intensive courses) in climate change topics, carbon emission topics, amongst others.
- Technologies
    - SIG and remote sensors
    - Geo-statistics
- Finances
    - Financial mechanisms of carbon emissions
    - Distribution incentives

5. Budget

The Budget for this component was estimated at US $332,000. This includes funding for consultancies, facilitation of the readiness process of ENDE REDD+ in the country and the technical team that will provide specific support to the ENDE (GT-ENDE) working group. The estimated items in this budget cover: Salaries, training of local stakeholders in ENDE-REDD+ topics, logistics to ensure participation to cover all topics and the implementation progress of the ENDE-REDD+ strategy. This budget covers financing of the participative process, tackling all the topics and progress in the implementation of the ENDE-REDD+ strategy.

TABLE 9: Activity, Timeline and Budget Summary of component 1b

Activity and Budget Summary						
Main Activity	Sub. Activity	Estimated Cost (in thousands of US$)				
		2012	2013	2014	2015	Total
ENDE Participatory Process	Consultation and facilitation of participatory processes	$10	$25	$20	$20	**$75**
	REDD+ trainings for the implementation of the RPP	$12	$20	$20	$20	**$72**
	Travel cost for actor participating in events (workshps, meetings) of the ENDE	$10	$30	$30	$30	**$100**
	Assessment and planning workshops	$10	$25	$25	$25	**$85**
Total		**$42**	**$100**	**$95**	**$95**	**$332**
National Government						**$0**
FCPF		**$42**	**$60**	**$60**	**$38**	**$200**
UN-REDD Program (if applicable)						**$0**
MASRENACE Program phase III						**$0**
Regional program REDD-CCAD-GTZ						**$0**
Another Development Ally 3 (name)		$0	$40	$35	$57	$132

1c. Consultation and Participation Process

Standard 1c the R-PP text needs to meet for this component:
Consultation and Participation Process

Ownership, transparency, and dissemination of the R-PP by the government and relevant stakeholders, and inclusiveness of effective and informed consultation and participation by relevant stakeholders, will be assessed by whether proposals and/ or documentation on the following are included in the R-PP (i) the consultation and participation process for R-PP development thus far (ii) the extent of ownership within government and national stakeholder community; (iii) the Consultation and Participation Plan for the R-PP implementation phase (iv) concerns expressed and recommendations of relevant stakeholders, and a process for their consideration, and/or expressions of their support for the R-PP; (v) and mechanisms for addressing grievances regarding consultation and participation in the REDD-plus process, and for conflict resolution and redress of grievances.

Please provide the following information in the space below:

- **Consultations held so far in the development of the R-PP in one to three pages: Detail and document the contents of the consultation materials, the consultation outcomes, any next steps, and how the outcomes have been taken into account into the R-PP. If necessary, please use Annex 1c to present additional materials.**
- **Proposed full consultation and participation plan in three to ten pages. If necessary, please use Annex 1c to present additional materials. Note that the full consultation and participation plan is required, not a summary or draft input to ToR.**
- **The summary budget and funding request in Table 1b (the detailed budget and funding data go in Component 5).**

Consultations held so far in the development of the R-PP:

Add your description here:

Consultation and Participation Process

This section discusses the general characteristics and guidelines of the process of consultation and participation that should be developed during the R-package phase. This component defines the general directives and the framework plan of the consultation process, which will be adjusted and given feedback during the final RPP preparation.

1. Framework and objective of the consultation and participation process (PCP)

In order to develop the National Strategy for Avoided Deforestation, a plan will be designed for the consultation and participation process (PCP) specifically for the next phase. This consultation process will adhere to the requirements of the United Nations Declaration of the Rights of Indigenous Peoples (UNDRID) 169 of the ILO, ratified by the Government of Nicaragua, which includes the free, prior and informed consent of the indigenous peoples. This implies the respect to their culture and vision, the use of their oral and written language in the process of consultation, and the traditional consultation mechanisms of these communities. Moreover, this process will adjust to the requirements of the safeguards policies of the World Bank (OP 4.10) and the World Bank guidelines on the participation of the stakeholders.

It is important to note that even though NSS-REDD + is a new initiative, for the relationship between government authorities and communities this is part of an ongoing process of dialogue with successes and expectations to be met.

Consultation with the stakeholders will have the objective to ensure effective, transparent and inclusive decision making as part of the development of the NSDS-REDD+. This will ensure adequate consideration and integration of the views, opinions, concerns and interests of key stakeholders through dialogue and consensus building.

Training and pre-consultation of the ENDE-REDD+ is essential for improving its quality. Effort should be put into using robust official information which has been reviewed by key people in the territories and institutions mainly related to forestry and environment and have not neglected involvement of other sectors. To move forward with the revision of the draft document R-PP, a dialog was planned with key stakeholders of the ENDE institutional platform. Some of the events that have taken place nationwide under the ENDE development framework and the RPP preparatory plan are described next.

2. Basic Elements of the PCP

The basic elements of the consultation process will have the following characteristics:

- Foster trust among the stakeholders and identify mutually beneficial solutions.
- Clear definition of the rights, duties and roles of the participants.
- Use of appropriate language, terminology and verb tense to facilitate communication. If they are with indigenous communities the consultation will take place in their own language.
- The Consultation should be seen as a permanent feedback process during the design , execution, monitoring and assessment of the strategy.
- Participants' willingness to cooperate amongst themselves, to listen and learn from each other and to reconcile different interests, in order to reach a consensus on the main solutions and decisions.
- Strengthen the network of government, non-governmental, producers, communities, academics and professional stakeholders.
- Professional guidance and facilitation of the process with proven and effective participation techniques.
- Provide enough time for the entire process and for the stakeholders to form an opinion.
- The process must count on ways to verify of the effectiveness of the communication process.

The organization of the consultation and participation process as it related to the ENDE-REDD+ in Nicaragua, will be based on three working levels. Among the existing authorities, the forest coordination structure, the existing forest governance and rural development committees, including the civil society environmental cabinets, in the territories where they exist, and on the other hand, among the new or complementary authorities specifically related to the ENDE-REDD+.

The three levels of the ENDE-REDD+ platform previously described in section 1.a will be incorporated into the participation and social coordination structures and authorities of the forest sector established by law in Nicaragua (Law 462 and regulations) or by administrative decisions. The CONAFOR as the highest authority will be key in this forest coordination process.

3. Main Phase of the consultation and participation process

The consultation and participation process will be the central and transversal axis throughout the development of the R-PP, the development of proposals, mechanisms and decisions on all the required elements of the preparation for a successful implementation of an ENDE-REDD+ outline in Nicaragua. This process can be divided in three phases: (1) Initial activities with the necessary information and

training of the key stakeholders, (2) Development of the readiness proposals agreed upon, and (3) Validation, formalization and dissemination of the proposals. These phases are linked to the roles of the three levels.

a. **Initial Activities**

The initial activities phase requires approximately 12 – 15 months and includes the following activities or elements:

- Creation of a Technical Secretariat (STRE) as an entity dependent on MARENA that must operate with permanent personnel throughout the process.
- Development of workshops for national, regional and community authorities, as well as for key stakeholders, with a special emphasis on territories with the most potential for REDD+ (RAAN, RAAS, Center-North area). The participants for the training and information workshops will be identified through a key stakeholders' analysis. The training topics will be mainly related to the R-PP, R-package and the achievements of the REDD+ in the national, regional and territorial context. At the same time we will take preliminary note of the perceptions and concerns of the stakeholders as they relate to the topic to be taken into consideration in future discussions in the GTRE.
- Formulation of the GTRE by convocation of Level I and CONAFOR. This GTRE can formally depend on CONAFOR because it is authorized to form commissions and working groups, or it can depend directly on Level I of the platform.
- Development of a functioning structure of the GTRE. This structure is important so all the participants in the GTRE can clearly know their rights and responsibilities, how to act and make decisions in the GTRE and the procedures to be followed in case there are differences of opinions or conflicts among the parties. For the GTRE structure it would also be feasable to establish a decision making authority (directorate or a board of directors) where the different interests of the REDD+/ENDE topics are equally represented. The details of this structure will be defined over the first three months after the establishment of the GTRE.
- Development of a GTRE work plan for the duration (4 years) of the process. The work plan must include the support of the entire R-PP process and develop all the required elements in the ENDE-REDD+ outline.
- Development of a draft ENDE-REDD+ strategy for Nicaragua.

  This draft includes:

  - A detailed and differentiated analysis of land use and the direct and indirect causes of land use change, applicable to the regions, areas and territories identified as having the most potential for ENDE-REDD+.
  - Proposal of eligible ENDDE-REDD+ measures territorially differentiated.
  - National and sub-national (regional) base line alternatives or reference scenarios.
  - Design proposals for a monitoring system with categories and attributes in accordance with the base line, potential ENDE-REDD+ measures, including key aspects to monitor its governance.
  - Environmental and social safeguard proposals
  - REDD incentives system proposal the can be applied with national funds.

- Analysis of a feasible legal and administrative framework to apply the ENDE-REDD+ outline in the country, that is compatible with the international process requirements related to forests and climate change.

b. <u>Development of the agreed upon readiness proposals</u>

This phase will require approximately 15-20 months and constitutes the central phase of the entire process. The discussions between the stakeholders, their agreements and decisions will be generated here. Any conflicts or disagreements will also be solved here, if possible. The discussions between the stakeholders will take place at the heart of the GTR and its committees. The main activities or elements are:

- Set up GTRE committees in accordance with the main topics of interest. An initial split may occur following the main elements of the ENDE-REDD+ strategy draft, but the final decision lies with the GTRE. Each committee will receive a mandate to generate an agreed upon proposal on each respective proposal of the ENDE-REDD+ strategy draft (see previous phase). The makeup of the committees must reflect, as much as possible, an equitable representation of the different interest groups as well as that of specialists in each topic institutional consultants or technicians). The committees will elect a coordinator or rapporteur that will communicate the decisions and definitive proposals to the broader group (assembly) of the GTRE. The STRE functions as a committee facilitator as well as for the GTRE.
- Develop the work plan of the different committees. These plans will be generated with the support of the STRE and must be approved by the broader GTRE group.
- The broader GTRE group will meet regularly (i.e. every three months) to review the progress of each committee and also receives information on any conflicts or disagreements among the participants. Early recognition of possible conflicts is necessary in order to adequately address the conflict in its initial stages.
- Present the results of the different committees work to the broad GTRE group and the key stakeholders that don't permanently participate in the GTRE meetings. Once the committees are quite advanced in their discussions, or when they are about to finish their discussions, they can present the main results of their work. This could be done in specific GTRE sessions.
- Decisions about the proposals at the heart of GTRE. When all the elements of the strategy have been discussed and the final drafts have been produced by the committees, the broad group (or specific authority within the broad group, depending on the GTRE structure is developed)will decide on each of them.
- Develop a final draft of the agreed upon ENDE-REDD+ strategy.

c. <u>Validation, formalization and dissemination of the proposals.</u>

This phase will begin once the final agreed upon draft has been produced at the heart of the GTRE. This phase can last between 9 – 12 months. The following activities will be carried out:

- Validation of the final ENDE-REDD+ draft strategy to Level 1 and CONAFOR for its approval.
- Daft assessment by technical and political authorities of the FCPF and CMNUCC

- Formalization of the ENDE-REDD+ strategy by the office of the President of the Republic
- Recognition of the ENDE-REDD+ strategy by the FCPF / CMNUCC
- Dissemination and publication of the ENDE-REDD+ strategy
- Transition towards strategy implementation and the R-Package phase.

The following minimal standards must be considered during consultation and discussion during the process and review of the abovementioned activities:

- Respect the territorial property rights and rights to access to resources of the stakeholders (producers, indigenous and local communities, etc.)
- Equitable distribution of the ENDE-REDD+ program benefits among all the relevant stakeholders and those whom by right are entitled to them.
- Improve the security and wellbeing of the indigenous and local communities
- Accordance with the social and economic development objectives with the highest importance in the country
- Maintenance or improvements of the ecological co-benefits (biodiversity and ecosystem services)
- Effective participation with previous and adequate information for all of the stakeholders and those whom by right are entitled to it, to allow for an appropriate governance and decision making process.
- Compliance with all the relevant national and international laws, agreements and conventions.

4. Design, consultation, verification and dissemination plan (PDCVD) of the ENDE-REDD+ in the Autonomous Regions

The technicians of the Caribbean Coast that are part of Level 2 of the ENDE-REDD+ platform were consulted to develop and adequate approach with an emphasis on the Caribbean Coast. It is important to point out that the representatives of the Autonomous Regions will be a part of the GTRE and the committees (or working groups) that will discuss the different aspects that will lead to the ENDE-REDD+ proposal. It is possible and pertinent that at the right time, territorial committees be formed to discuss the specific interests of the Autonomous Regions.

The PDCVD of the ENDE-REDD+ will have as base the organizational structure and decentralized mechanism of the current forest Governance process that will be developed at a national level under the forest policy framework during 2007-2009 (Annex 1a-2), through the Forest Governance Committees (Territorial GOFOs)and s expected to take into account the lessons learned in this process and from the forest Governance Alliance[33].

- Establish a decentralized agreement mechanism (Forest Governance Committee)
- Agree on an forest policy/strategy
- Territorial consultation platform (biodiversity policy, soil, basin, food safety and ENDE-REDD)
- Central American cooperation platform (PERFOR, ERA)
-

To build the PDCVD organizational strategies were defines as well as the process strategies. These considerations will be taken into account to improve the efficiency of the ENDE-REDD+ readiness and obtain the necessary effectiveness and efficiency.

5. Methodological aspect for consultation and readiness of the studies related to ENDE that are linked with the Autonomous Regions.

- Consultation mechanism taking into account free and previous consent and free self-determination of the indigenous peoples.

- Permanent interface and coordination process between the different Governance frameworks.

6. Necessary Activities

To comply with the development of the ENDE-REDD+ in stages, a series of activities related to national, regional and local level consultations were suggested as well as for the functioning of the GT-ENDE.

We will develop a preliminary consultation phase as well as national an d regional consultations.

The previous consultation phase will consist of feedback from this RPP document through working meetings with key stakeholders on topics regarding the agricultural, forest and environmental policies, institutional agreements, forest monitoring, among other key topics suggested in the R-PP. The

[33] Inter-institutional Authorities formed by: MAGFOR, INAFOR, MARENA, GRAAS, GRAAN, AMU, FONADEFO, GTZ, FAO, Common Fund (Finland, Switzerland, Sweden, Norway), VERIFOR , CATIE, CIFOR, Global Witness

objective of this phase is to improve the draft RPP document version 3 through consultations with key national and regional stakeholders , which will allow for more accurate and adequate feedback and adjustments of the national and regional vision of the readiness plan of the ENDE-REDD+. This phase will last one month (March 2011), and the final product will be the delivery of the R-PP version 4 to the FCPF in April 2011.

An ENDE-REDD+ design, consultation, validation and dissemination plan will also be developed, which will include the development, design, implementation and reproduction of material to tackle the REDD+ topic and other key national and regional topics. Some of the necessary materials are: brochures, manuals, foldable banners, poster, booklets, pens, T-shirts, bags, flipcharts, etc.

All these material will be designed with a focus on the national group to which the ENDE-REDD+ development process and proposal design will be aimed at. It is expected that all the texts and images will be adapted to the national reality (technical and colloquial language) with a gender, multiethnic and multi-lingual focus . Likewise, any dissemination program for mass media should take into account the cultural particularities of the population they will be aimed at.

Another important aspect of the consultations will be to implements and information and training program for indigenous communities, rural communities, local, municipal and departmental decision-making stakeholders, focused on socializing the ENDE-REDD+ topic and the ownership of the ENDE-REDD+ development process.

TABLE10: Proposed full consultation and participation plan (describe here):

Early Dialog Program for the review of the (5th) formal version of the Nicaraguan RPP

MINISTRY OF THE ENVIRONMENT AND NATURAL RESOURCES **FCPF NI TF099264 DONATION** Early Dialog Program for the review of the (5th) formal version of the Nicaraguan RPP					
Workshop	Date	Theme	Department	No. of Participants	Observations
1	4/17/2012	Dialog Workshop of the ENDE-REDD+ Proposal with Local and Municipal Authorities, Citizen Power Cabinets, CCF-A.	RAAN	35	
2	4/19/2012	Dialog Workshop of the ENDE-REDD+ Proposal with Local and Municipal Authorities, Citizen Power Cabinets. Level II	Managua	40	
3	4/25/2012	Dialog Workshop of the ENDE-REDD+ Proposal with Local and Municipal Authorities, Citizen Power Cabinets. CTR	RAAS	35	
4	5/16/2012	Dialog Workshop of the ENDE-REDD+ Proposal with Local and Municipal Authorities, Citizen Power Cabinets.	León	35	Including participants from Chanandega.
5	5/17/2012	Dialog Workshop of the ENDE-REDD+ Proposal with Local and Municipal Authorities, Citizen Power Cabinets.	Estelí	35	Including participants from Somoto, Matagalpa and Jinotega.

6	5/18/2012	Dialog Workshop of the ENDE-REDD+ Proposal with Local and Municipal Authorities, Citizen Power Cabinets.	Granada	35	Including participants from Rivas and Masaya.
7	5/21/2012	Workshop: "Development of the SESA Analysis", of the benefits and positive social and economic satisfaction of peasant families, native and afro-descendants that have assumed the care and protection of the forests.	Managua	35	Confirm with WB
8	5/22/2012	Workshop: Final proposal completion (integration and editing of the components). Structuring of the final document of the ENDE-RPP	Managua	35	

TABLE 11: Budget, Timeline and Activities Summary of Consultations and Participation.

Main Activity	Sub. Activity	Estimated Cost (in thousands of US$)				
		Thousands of US$				
		2012	2013	2014	2015	Total
ENDE Advisory	National Workshop	$10	$10		$10	$30
	Regional Workshops	$20	$20	$30	$20	$90
	Develop dissemination material to tackle the REDD topic and other key topics (brochures, manuals, foldable banners, texts and images adapted to the national reality with a gender, multiethnic and multilingual focus).	$30	$40	$40	$30	$140
	National and Regional dissemination program (including the program and implementation design)	$20	$30	$30	$30	$110
	Information and training program for indigenous communities (including program and implementation design)	$30	$40	$40	$40	$150
	Development of a proposed functioning structure of the GTRE.	$10				$10
Functioning of the GTRE secretariat	Personnel	$33	$33	$33	$33	$132
	Office Expenses	$12	$12	$12	$12	$48
	Equipment	$10	$20	$20		$50
	Web Page and multimedia	$3	$3	$3	$3	$12
Functioning of the GTRE	Assessment and planning workshops	$5	$10	$10	$5	$30
	Broad group and committee meetings	$10	$15	$15	$15	$55
	Exchanges	$4	$4	$4	$4	$16

	Studies and consultations to develop draft proposals	**$10**	**$10**		$10	**$30**
	Total	**$207**	**$247**	**$237**	**$212**	**$903**
National Government						**$0**
FCPF		**$100**	**$200**	**$200**		**$500**
UN-REDD Program (if applicable)						**$0**
MASRENACE Program phase III						**$0**
Regional program REDD-CCAD-GTZ						**$0**
Another Development Ally 3 (name)		$107	$47	$37	$212	$403

Component 2: Prepare the REDD-plus Strategy

2a Assessment of Land Use, Land Use Change Drivers, Forest Law, Policy and Governance

Standard 2a the R-PP text needs to meet for this component: Assessment of Land Use, Land Use Change Drivers, Forest Law, Policy and Governance:

A completed assessment is presented that: identifies major land use trends; assesses direct and indirect deforestation and degradation drivers in the most relevant sectors in the context of REDD-plus; recognizes major land tenure and natural resource rights and relevant governance issues and shortcomings; documents past successes and failures in implementing policies or measures for addressing drivers of deforestation and forest degradation; identifies significant gaps, challenges, and opportunities to address REDD-plus; and sets the stage for development of a national REDD-plus strategy to directly address key land use change drivers.

Please provide the following information:

- **The assessment of land use, forest law, policy and governance in the space below in five to ten pages.**
- **Fill in the activity and budget in Table 2a for any follow-up activities or studies needed (detailed budget data go in Component 5)**
- **If necessary, attach additional materials, a further work program, or draft input to ToR for further work in Annex 2a.**

Add your description here:

Assessment of Land Use, Forest Law, Policy and Governance

1.- Analysis of the historical facts on change of land use[34]

Historically in Nicaragua the analysis of the causes that drive land use changes have been carried out mainly anecdotally, without an analysis that would allow for the explicit quantification of these causes. For this reason the need for an integral estimation and analysis of the factors or drivers of deforestation and forest degradation is even greater.

The present analysis of the Forest Transition theory and the Agricultural Allocation theory (Angelsen, 2007), which is based on the supposition that all departmental land at one point in more or less recent history, had been forests of low intensity use, used at the most for sustenance extraction or pristine forests. 5 phase or states can be confirmed over this transition gradient: (1) natural forests, used at most for sustenance (2) natural forests with market extractive uses, (3) areas with low intensity land use, preserving at least some tree cover, (4) intense land use areas y (5) areas in recovery (natural succession, reforestation).

TABLE 12: Categories correspondence of the National Forest Inventory (INF) with the phases of the forest transition gradient

Phases in the transition gradient	INF Category	Comment
1. Natural forests, pristine forests or those used solely for sustenance	Natural forest, BN	For this analysis the different degrees of intervention in the BN category were not differentiated
2. Natural forests with extractive uses	Natural forest, BN	
3. areas with low intensity land use	Forest grazing, OTSAF, incl. Extensive cattle raising, Gea	
4. Areas with high intensity land use	Crops without trees, Ca+Cp, Extensive cattle raising, G, Secondary Forests, Ta	The secondary forest areas are included here because they were generated by agricultural production activities and constitute, generally, a temporary resting phase in the agricultural management of tropical land
5. Areas in recovery	Forest plantations	Are not included in this analysis

A surface of hypothetical historic forests was calculated adding the surface of all the INF categories that correspond to phases 1-4 of the transition gradient (table 2) according to the following formula:

(1) $A_{FH} = A_{BN}+A_{Gea}+A_{OTSAF-Gea}+A_{Ta}+A_{OTAN-Ta}+A_{Ca+Cp}+A_{G}$

The historic land use change was then calculates subtracting from the historic forest surface, the remaining forest surface (for the year 2008).

(2) $A_{CH}=A_{FH}-A_{BN}$

7 relevant land use categories were grouped in 3 agents or factors of change of historic land use: (a) cattle raising (Gea+G), (b) agriculture (Ta+Ca+Cp) and (c) agro-forestry (OTSAF-Gea).

[34] Arnold F. 2010. Analysis of the historical facts on change of forest use to other uses in Nicaragua FEA/INAFOR-CIM/10/8/10. 10 p.

The relative importance of each of the main 3 agents of change was calculated dividing the aggregate surface of the agents of change by the respective surface of historical change at the three regional levels (national, by zones, departmental/regional).

The results of these calculations indicate that the main historical cause of forest change to other land uses (deforestation) in Nicaragua is extensive cattle raising with 53.2% of the surfaces changed, followed by agriculture with 39.5%. Agro-forestry is only responsible for 7.2%.

The distribution between the 3 main agents of change in the Pacific was agriculture with 55.9%, cattle raising with 34.4% and agro-forestry with 9.8%. The tendency in the Centre-North of the country (the Segovias, Jinotega, Matagalpa) was cattle raising (45.5%), agriculture (39.5%) and of relatively high importance is agro-forestry at 15.1%.

In the Center-South zones (Boaco, Chontales, Río San Juan) and Atlantic (RAAN, RAAS) the tendency towards cattle raising is higher, the Center-South zone with 74% for cattle raising, 21.2% for agriculture and only 4.8% for agro-forestry. Finally, in the Atlantic Zone, the tendency of change due to cattle raising diminishes somewhat, but is still dominant at 56.2% of the surfaces with use change while agriculture is responsible for 41.3%.

Another interesting aspect is that in the two autonomous Regions, the relative importance between cattle raising and agriculture are the opposite. While in the RAAS most of the changes (64.8%) are due to cattle raising, only 33.6% is caused by agriculture. Meanwhile, in the RAAN most of the change is due to agriculture with 54.1% making it the main cause of deforestation while cattle raising accounts for 41.9%.

The surface of the original forests in the national territory were inferred, and the accumulated losses were calculated over the entire processes of historic colonization and recent settlements up until the year of the national forest inventory (2007-2008).

TABLE 13: Historic forest surface and accumulated usage change by zone, in ha

Zone	Original historic forest	Historic accumulated usage change until 2008	Percentage of original forests	Remaining natural forest until 2008	Percentage of original forests
Pacific	1,581,554	1,292,794	81.7%	288.760	18.3%
Center North	2,155,938	1,619,313	75.1%	536.625	24.9%
Center South	1,694,654	1,396,783	82.4%	297.871	17.6%
Atlantic	4,715,935	2,665,157	56.5%	2,050,778	43.5%
Country Total	10,148,081	6,974,407	68.7%	3,173,674	31.3%

The zones where, in relative terms, the most forests have been lost are the Pacific (81.7%)and the Central-South zone (82.4%). Nevertheless, in the autonomous regions of the Atlantic and the Center-north is where the largest original forests were lost in absolute terms (4.8 millions of ha) but these are also the regions of the country where most of the natural forests still remain.

The results of this analysis can be considered indicators that it is possible to find differences in terms of the importance that the causes of deforestation and degradation (DD) have in different areas or zones of the country. A deeper analysis of this topic is recommended in order to estimate in a more thorough way, the relative and spatially explicit importance of cattle raising, agriculture and agro-forestry in the deforestation and degradation processes of each region and department in the country. These results may serve as input to determine the national baseline and/or make sub-national baseline proposals in cases where there are significant differences in specific regions.

2.- Analysis of the direct and underlying causes of deforestation and forest degradation in Nicaragua.

The phenomenon of deforestation and forest degradation has roots in the growth and development model of extractive culture adopted in the country over the last decades aimed at monocultures for export, such as cotton in the Pacific Region, at the expense and sacrifice of the forests; peasant migrations, product of the agrarian colonization process of the seventies; the re-settlement of those displaced by war in the early nineties, especially in the Autonomous Regions of the Caribbean; the focus of policies and programs aimed at promoting agricultural activities (basic grain crops, extensive cattle raising) that still continues today, a forest regulatory framework with little effect and coordination with other development sectors of the country, leading to a large deterioration of the forest ecosystems and an accelerated advance of the agricultural frontier.

In Nicaragua you can identify the leading causes for the loss of forests and forest degradation (INAFOR 2004) as: i) the expansion of the agricultural frontier in the last five decades (migratory agriculture and extensive cattle farming); ii) felling and illegal extraction of forest products (wood and timber), iii) forest and agricultural fires, iv) Environmental emergencies due to natural phenomena (hurricanes, mud slides, flooding, drought, forest plagues), v) Social pressure over the need for resources by poor families and vi)settler invasions of indigenous territories[35].

Expansion of the agricultural frontier[36]

Extensive cattle raising practices with low productive performance, leads to and accelerates advancement of the agricultural frontier making this activity the main threat to natural forests in the country. Converting forests into agricultural areas is linked to food security of poor rural families, while the objective of expanding pastures is to supply grazing areas for cattle during the dry season, and the Atlantic region is the one to solve or amortize the pasture shortage in other parts of the country.

It is estimated that out of approximately 200,000 cattle ranching families and a herd of 4.2 million heads of cattle, 80% are considered small or medium productive units. The stocking rate is approximately 0.5 Animal Units (U. A.)per block (0.84 Ha).

The minimal development conditions of this zone does not allow to count on permanent roads, and most of the rural communities don't have electricity, water and light. One of the main problems is also the legality of the land and the definition of the property rights of the indigenous communities.

Illegal felling

The illegal felling of forests continues to be one of the most important causes of deforestation and forest degradation. The data is imprecise and therefore should be improved as part of the ENDE-REDD+ strategy implementation. However, studies carried out in 2000 and 2003 indicate that the volume extracted by illegal felling is equivalent to 60% of the court authorized volumes registered by INAFOR[37]. Studies carried out by the World Bank and cited by the same source, indicates that illegal logging oscillates between 30,000-35,000m³ in broad leaf wood and between 110.000 and 135.000 m³ in conifer wood. The same study estimates that the financial losses from illegal felling cost the Nicaraguan government between $ 4

[35] Workshops with 17 indigenous territories and a joint Management Plan for the BOSAWAS Biosphere Reservation .

[36] Sources: INAFOR 2004. Agricultural Frontier.
MAGFOR. Sectoral agricultural policies 2004-2006? http://www.iica.int.ni/Estudios_PDF/Estrat_Des_Rural.pdf
http://www.iica.int.ni/Estudios_PDF/Estrat_Des_Rural.pdf

[37] In 2000 INAFOR authorized logging of 56,100 m^3 of round wood, but exports were 70,392 m^3 of sawn timber. INAFOR Annual Report 2009

and $8 million USD each year, which calculated in terms of net present value (VAN), these losses are estimated between $30 and $60 million USD. From this we can infer that in addition to contributing to achieve the stabilization objectives of the emission levels of GEI, a proper implementation of the ENDE-REDD+ will also have economic, social and environmental contributions.

Forest fires

Fire is the main instrument used to widen new crop and pasture areas which is why it is closely related with the advances of the agricultural frontier, affecting large forest extensions annually (degrading their structure and floristic composition). Fires represent economic loss, environmental emergencies or disasters in the short, medium and long term, among others effects are: a) severe impact to basic environmental factors, mainly biodiversity and forest ecosystem functionality; Increased concentrations of carbon dioxide emissions and a reduction of 'sinks', which increases the green house effect; c) human infrastructure and life are affected; d) production activities are deficient due to reduced fertility of the soils; and e) Increased rural poverty.

Environmental Emergencies or natural disasters

Hurricane Mitch, caused losses in the order of half of the country's GDP. The sub-sector that was most affected was agricultural exports. The main problem generated by hurricanes is the degradation of forest ecosystems. Along these lines, we hope to build technical and methodological criteria to evaluate the impact of natural disasters. On the other hand, other adverse climate phenomena like drought and intense rain have affected pine forests in the central zone of Nicaragua, combined with the natural conditions of these forest ecosystems, they have been afflicted by pest such as the southern pine beetle(*Dendroctonus frontalis*), in one area was of 32,873.46 ha, a volume of almost 4 million m^3 (INAFOR 2009b and according to the environmental emergency declaration in 2000). Impacting the economy of the sector, and as a consequence, rural poverty, and its even greater exposure to future disasters. The ENDE-REDD+ readiness phase can carry out a study of the forests impacted by hurricanes, on how they were affected and on the response to the natural recurrence of extreme environmental events.

Settler invasions of Indigenous territories

The Mayagna and Miskitus ethnicities are pre-columbine inhabitants with ancestral ownership in the Atlantic territories of Nicaragua, while the Mestizos appeared with the advance of the old agricultural frontier and extensive cattle raising that began in the 1950's until now, in a social process related to poverty, political concessions and illegal land trafficking. The culture of these indigenous peoples is very in tune with the conservation of their natural resources. The average deforestation rate is over 2.15 ha per person, per year, while in indigenous communities it is around 0.2 ha per person, per year[38]. The deforestation rate of the Mestizos is ten times higher than that of the indigenous peoples, which is clearly evident in the geographic analysis done by MARENA in 2011. The indigenous peoples and their culture have been a fundamental factor in the conservation of forests in Nicaragua. For example, 90% of the existing forests in the heart of the BOSAWAS Reserve are located in indigenous territories.

The production logic of the Mestizos is similar to that of the cattle ranchers of the old agricultural frontier. Peasants without land who have been displaced form the Center of the country, enter the territory to dispute land they consider to be idle, being indigenous territories, they deforest them and in time, they convert them into stables and secondary forests. Once these lands acquire some value and the capitalize on them, they sell them to landowners of the Center or the Pacific[39].

[38] MARENA; 2011; Joint Management Plan for the BOSAWAS Biosphere Reservation . Citing (Stocks, *et al*. 2005).
[39] Lezama, M 2007; The Natural Capital index as an anlysis instrument of biodiversity loss in Nicaragua.

In the year 1987, an average of 95% of the indigenous territorial extension had forest coverage. By the year 201 that percentage had been reduced to an average of 88.9%, affected by the land invasion process by settlers.

3.- A multi-temporal analysis of the years 2000 to 2009

For the multi-temporal analysis of 2000-2009, two satellite images were prepared to correspond to the year 2000 and the year 2009 (both are Landsat images which allows them to be compared). The year 2000 image was acquired from the United States Geological Service webpage (USGS), which is an Orthorectified Landsat Thematic Mapper Mosaics at 30m elaborated by the United States National Aeronautics and Space Administration (NASA) and modified by Earth Satellite Corporation (2002). The 2009 image is an orthorectified multi-spectral image mosaic at 30m elaborated by the Cooperation Agency of the Chinese Republic of Taiwan (see annex, multi-temporal analysis report and multi-criteria model to select ENDE-REDD+ areas in Nicaragua).

To establish the class or category of land use, 6 general categories were grouped with the uses reported in the usage map of 2000. Additionally, the use categories were compared with the use units identified in the sample plot of the Nicaraguan Forest Inventory, and a quick analysis of vegetation was carried out using the NDVI index.

Bosque de pino cerrado Bosque latifoliado cerrado Manglar Cafe con sombra	**Bosque denso**
Pasto manejado Maleza y pasto con arboles	**Pasto**
Tacotal y pasto con maleza Vegetacion arbustiva Vegetación arbustiva Yolillales Yolillo	**Tacotal**

Bosque mixto Bosque de pino abierto Bosque latifoliado abierto Cafe sin sombra	**Bosque ralo**
Agua Afloramientos rocosos Area humanizada Area volcanica Camaroneras Carcava con vegetacion Centros poblados Playa Suelo sin vegetación Tierra sujeta a inundación	**Agua y suelo descubirto**

Caña de azucar Cultivos anuales Cultivos anuales bajo riego Frutales Huertos Musaceas Plantaciones Tabaco	**Cultivos**

Figure 6: Reclassification of the land use categories year 2000 to carry out the multi-temporal analysis

With the vegetation index (NDVI) the quantity, quality and development of the vegetation was calculated by the combinations of spectral bands. The NDVI value varies according to the use of the soil, phenological state of the vegetation, water situation of the territory and the climate environment of each zone of Nicaragua. This was complemented with cartographic information published within the dates contained in the interval of time that was studied (2000-2009).

Figure 7: Multi-temporal analysis (2000-2009 period) to evaluate the land use change at a national level (Preliminary Study)

Land use in Nicaragua has experienced substantial changes (see figure 8). Between the years 2000 and 2009 dense forest has been reduced at a rate of 72,455.09 ha/year. The situation is particularly critical in the case of sparse forests which changed at a rate of 115,563.84 ha/year. In the crops category the change represents a surface increase of 122,190.29 ha. The pasture category, which was the one that gained the most surface, did so at a rate of 163,351.81 ha/year, making it the most damaging activity in the national territory. Finally the secondary forest category increased by 201,617.72 ha for a total rate of 22,401.97 ha/year in the period analyzed.

TABLE 14: Soil Use Changes between the year 2000 and 2009

Año 2000			*Año 2009*				
Uso/ Cobertura	***ha***	***%***	***Uso/ Cobertura***	***ha***	***%***	**Cambio ha**	**Cambio %**
Agua	248,309.03	2.09	Agua	146,505.06	1.23	101,804	-6%
Cultivos	767,034.28	6.45	Cultivos	889,224.57	7.47	-122,190.29	2%
Pastos	2,717,484.50	22.84	Pastos	4,187,650.80	35.20	-1,470,166.31	5%
Tacotales	3,074,019.77	25.84	Tacotales	3,275,637.49	27.53	-201,617.72	1%
Bosque Abierto	2,042,550.88	17.17	Bosque Abierto	1,002,476.36	8.43	1,040,075	-8%
Bosque Cerrado	3,047,619.47	25.62	Bosque Cerrado	2,395,523.64	20.14	652,096	-3%
Total	*11,897,017.92*	*100.00*	*Total*	*11,897,017.92*	*100*		

To establish the dimension of the natural spaces degradation we present the following table in which we quantify a total area of 1,490,552.63 ha in process of degradation by cattle raising activities, illegal forest extraction and agriculture.

In the data obtained in the previous exercise we see an important consistency. When we compare the data published in the 80's and 90's we find that for the period 1981 to 1990, the FAO reports a rate of change for Nicaragua of 1,4% and a rate of change of 2.5% for the period between 1991 and 1995 (FRA 2000).

The results represent an indicative element to locate and quantify the degradation areas as input for the Multi-criteria Assessment Model (MEM) which will be used to determine in a general way, the areas of the country that qualify for the REDD+ Focus. To improve the precision of this analysis it is recommended, in the future, to use the images with the broadest spectral resolution and applying all the classification techniques (supervised and unsupervised) and field verification.

The analysis of the results of the national forest inventory and the publications of the national and international institutions (MAGFOR, GTZ) indicate that the main historical cause of forest use change to other uses (deforestation) in Nicaragua is cattle raising (Arnold, F. 2010), which is confirmed by the results of the exercise carried out for the 2000-2009 period.

TABLE 15: Use Change in Nicaragua 2000-2009

Cambios de uso en Nicaragua - 2000 - 2009					
Cultivos agrícolas		**Pasto**		**Tacotal**	
Cultivos-Pastos	457,194.78 ha	Pastos-Cultivos	251,881.07 ha	Tacotal-Cultivos	115,438.35 ha
Cultivos-Tacotal	306,862.29 ha	Pastos-Tacotal	831,571.41 ha	Tacotal-Pastos	1,332,664.30 ha
Cultivos-Bla	231,320.59 ha	Pastos-Bla	114,222.99 ha	Tacotal-Bla	120,416.25 ha
Cultivos-Blc	280,267.03 ha	Pastos-Blc	434,648.90 ha	Tacotal-Blc	543,202.41 ha
Sin Cambio	**394,524.15 ha**	**Sin Cambio**	**546,327.78 ha**	**Sin Cambio**	**292,610.50 ha**

Bosque latifoliado abierto	
Bla-Cultivos	84,870.90 ha
Bla-Pastos	1,703,872.15 ha
Bla-Tacotal	981,199.72 ha
Bla-Blc	994,150.82 ha
Sin Cambio	**510,647.23 ha**

Bosque latifoliado cerrado	
Blc-Cultivos	41,791.68 ha
Blc-Pastos	92,029.41 ha
Blc-Tacotal	855,672.63 ha
Blc-Bla	116,562.76 ha
Sin Cambio	**1,097,575.58 ha**

This data reveals that the tendency of ecosystems degradation in Nicaragua resulting from cattle raising activities which promotes forest degradation, represents 82% of the change area; agriculture is responsible for 7% of the degradation area and 11% of the secondary forest areas , which generally represent the forest extraction activities. We can conclusively declare that the exercise carried out corresponds with the data published by the institutions and the national inventory which confirms the deterioration tendency of the forests.

It is important to point out that even though the data obtained in the exercise does not substitute the data obtained in the national inventory, they are nevertheless an important input to spatially value the degradation and deforestation areas in the decisions to incorporate said areas in the RED+ focus.

3.- Multi-criteria Analysis

This analysis suggest a methodology based on the integration of the Geographic Information Systems (SIG), the Multi-Criteria Assessment Techniques (EMC) and the analytical hierarchy methods, so as to procure a model that will make it easier to locate the areas of deforestation and degradation, which includes the socioeconomic, environmental and productive variables associated with these processes and with the potential to be applied in the ENDE-REDD+ approach. A digital vector and raster database was built which included Biophysical, Environmental, Socioeconomic and land-use variables, associated with territorial planning defining the surface where degradation and deforestation scenarios occur.

The areas eligible for the ENDE-REDD+ mechanism will be framed in the scope of the territorial analysis, therefore it was considered valid to apply the SIG integrated with EMC techniques to determine these areas, and ensure that they fulfill all the conditions to be incorporated into the ENDE-REDD+. The assessment was carried out with weighted linear addition applications (simple objective and multiple criteria). From this analysis information was generated the assisted the decision making process, particularly in land use definition problems, productive activities and territorial management.

According to the results of this model, the leading causes of deforestation in Nicaragua can be attributed first to cattle raising activities and second to the farming activities that put a strain on the forested spaces of the national territory.

This model determines the 3 levels that correspond to the possible ENDE-REDD+ mechanism application options. The lower level corresponds to the areas with low forest cover that have historically shown high rates of deforestation, with a higher incidence of its causes and where there is the most potential to apply the guidelines proposed in the ENDE-REDD+ strategy. The second important value corresponds to forested areas where it is possible to reduce the deforestation rate and incentivize degradation reduction activities and that historically have been used for extensive cattle raising and sustenance agriculture.

The Multi-criteria Assessment tool has been fundamental in the selection of new priority areas for the ENDE-REDD+ mechanism in Nicaragua, contributing to simplify these complex processes, allowing the decision maker to easily assign functions. Provides enough confidence in obtaining the information on the causes of deforestation, first because it has been possible to handle mathematically and statistically enough information quickly and safely, and second because the information obtained allow us to evaluate the alternatives to achieve the required objective without losing information. The model and the Multi-criteria assessment allow adjusting the analysis to a local, sub-national and national scale.

Starting with the geographic layer obtained as a result of the SIG operations, a set of tables have been generated (see annex 2a) that numerically describe the interactions of the different variables that integrate the model and the land use change distribution by municipality, basin, region and country.

Key terminology description of the ENDE-REDD+

ENDE Areas: Are the areas of the country where it is necessary to slow down the deforestation and forest and environmental degradation process (DD) , as well as implement activities that will provide social, economic and environmental co-benefits to the forest owners. The ENDE areas are the places where there is a larger threat of the DD drivers.

These areas where intervention of the REDD+ mechanism can have optimal results, where the forests suffer major deforestation threat s and where it is possible to implement activities such as: increase carbon reserves, conservation of carbon *stocks* and the sustainable management of forests, as well as obtain additional co-benefits.

APR: Are areas that were deforested and where a land use change occurred. They are areas with reforestation potential, they could be eligible under the MDL mechanism or the establishment of sustainable agro-forest grazing cattle production systems.

REDD is the reduction of emission produce by deforestation and environmental degradation. But in this document we reference that Nicaragua will implement a **REDD+,** national strategy, which is understood to be the reduction of emissions produced by the reduction of deforestation and environmental degradation, through increasing carbon reserves and sustainable forest conservation and management .

Figure 8: Preliminary result of the multi-criteria model analysis that identifies ENDE areas at a a national scale

4.- Cattle raising and land use change in Nicaragua

The socioeconomic importance of beef cattle raising

From 2000 to 2009 the agricultural sector grew at an annual rate of 3.6%, slightly over the average for Central America (3.2%). Part of this growth is due to the performance of the cattle raising subsector, which grew at an annual rate of 5%. Beef cattle, one of the most important economic activities of the country, generated approximately 5% of GDP and represented 27% of the value of domestic product exports[40]. Over the last six years, beef exports have significantly increased, surpassing 107.6 million lbs. in 2006, and reaching 230.4 million lbs. in 2011, an increase of 114%; and increasing 188% in monetary units. Nevertheless, livestock exports have diminished by 45%, during the same period. Additionally, national milk production has seen an increase from 170 million gallons to 205.9 million gallons, which represents an increase of 21%[41] in volume, but 119% in monetary units; while cheese exports have increased 138%[42].

The main export destinations of Nicaraguan beef are: Venezuela, United States, Mexico, El Salvador, Puerto Rico, Guatemala, Costa Rica and Honduras. When it comes to beef, aside from the traditional markets, the FTA with Mexico and exports to Venezuela have been important factors in this increase.

[40] IADB; 2012; Project Profile: Sustainable Agricultural Productivity Promotion Program (NI-L1067)
[41] Statistics Office of MAG-FOR March 2012, Using their own sources and those of the Central Bank of Nicaragua.
[42] CETREX

But, for 2010 and 2011 the established quotas for beef exports was 64,805 MT for both years, of these, in 2010 47,173.89 MT were exported which represents 72.79% and for 20011 45,003.46 MT were exported, equivalent to 69.44%, which reflects that there is even a larger demand.

Agriculture and cattle raising form part of the Nicaraguan culture and cattle raising represents a certain status; in the social perception, to be a cattle rancher is more than just being a farmer and cattle raising represents not only an income, but it also represents a savings account for family emergencies. The actual and potential contribution to the economy is undisputable; cheese and milk represent almost 27% of the fixed basket of goods of Nicaraguan families[43]; but the damages to the forest resources and ecosystem benefits are evident and should be approached in a strategic way at the highest level in the country. The ENDE-REDD+ readiness phase is a pertinent and timely framework in which to guide the nations efforts.

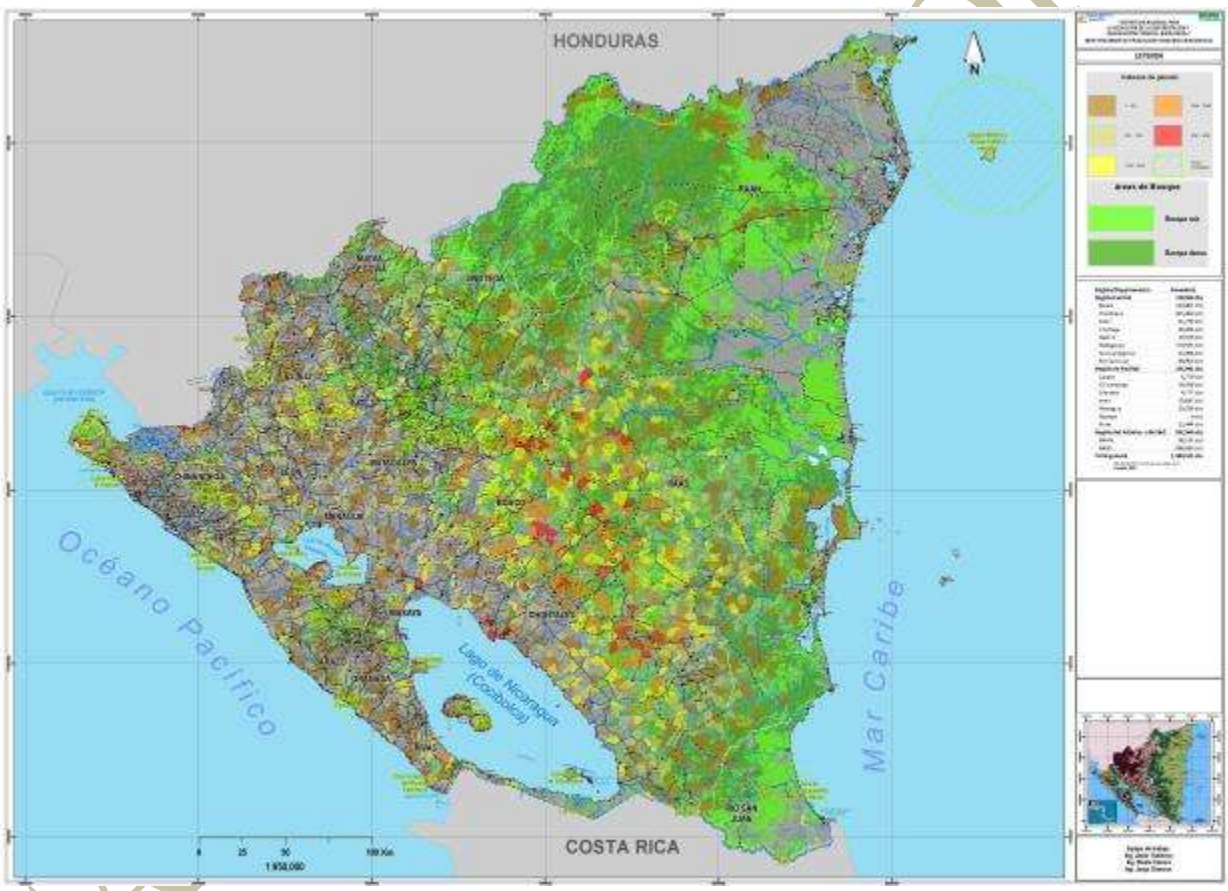


Figure 9: Preliminary Map of cattle production in Nicaragua

[43] MAGFOR, 2012; Dairy Sector Report, 2012.

Cattle raising and the loss of natural capital.

A study carried out by UCA NITLAPAN, with Dutch Cooperation [44], in the Central Region of Nicaragua, researched the phenomenon of extensive cattle raising as one of the main cases of forest destruction in the country and presents resounding numbers on the relationship between land use change and natural capital loss of land and their subsequent socioeconomic effect[45]. During the periods studied, a hectare of forest or mountain, as it was called, had less value that a hectare of cleared land, as a reflection of the same agricultural and cattle raising policies and vice-versa, for forest management and natural resources.

Studies carried out in 1998, after Hurricane Mitch[46], showed that the agro-ecological plots[47] of Central America were able to resist the impact much better than the conventional agricultural plots. Even though the damages were tremendous, the agro-ecological plots were able to preserve more fertile layers , humidity and tree vegetation than the conventional ones. They also suffered less erosion, landslides and economic losses. From this study we can infer that cattle raising isn't in itself the problem, it is the extensive manner in which it is carried out in detriment of the countries natural capital , which is primarily represented by forests.

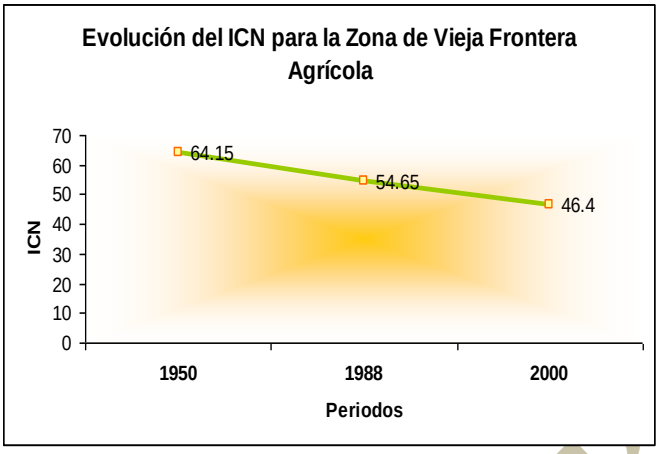


FIGURE10. Evolution of the ICN for the Old Agricultural Frontier Zone

In the next table we present the main drivers of deforestation and forest degradation, the main agents identified, the locations or regions of the country with the most incidences of these causes and a brief description of how to implement actions to reduce the impact of these drivers.

TABLE 16: Drivers of deforestation and forest degradation (DD) in the country.

Leading Causes	Agents	Regions of the country with incidence	How the country currently manages or reduces the causes of deforestation and degradation in the country.	Institutions involved in reducing these causes
Expansion of the agricultural frontier	Farmers, extensive cattle ranchers	Caribbean Center	National Food Program National Agro-industry Program National reforestation campaign National Forestry Program (PFN)	MAGFOR, INAFOR, MARENA, Businesses, Schools, Universities, NGO
Forest and agricultural fires	Farmers that practice slash and burn	Pacific (León Chinandega, Carazo, Masaya,	-Systematic monitoring of hot-spots (NOAA satellite) -Joint development between MARENA,	MARENA-SINIA INAFOR Civil Defense

[44] NITLAPAN; 2006; Cattle raising development in Nicaragua y its influence on: The socioeconomic wellbeing of families, biodiversity and environmental services.

[45] ICN: Natural Capital Index

[46] Erick Holt Giménez (2000 y 2008)

[47] Agro-forests, forest grazing.

Leading Causes	Agents	Regions of the country with incidence	How the country currently manages or reduces the causes of deforestation and degradation in the country.	Institutions involved in reducing these causes
	methods, logging, uncontrolled fires, and illegal hunting.	Rivas) North (Estelí, Nueva Segovia, Madriz) RAAN and RAAS.	INAFOR, CIVIL DEFENSE of the Nicaraguan Army of a yearly integral plan for the prevention and attention to forest fires. - MARENA, INAFOR, CIVIL DEFENSE of the Nicaraguan Army will identify 5 regions as critically vulnerable to forest and agricultural fires. -Consolidated and standardized report of the forest fires that occur at a national level. -Projects that finance the organization, systematic training, constant equipment procurement for local fire fighting brigades.	SE-SINAPRED Local and military volunteer brigades
Felling, extraction and illegal trafficking of forest products.	Loggers, forest owners, squatters, agricultural merchants	Caribbean North Pacific	Forestry Project Facility: Improvements in forest law implementation, better promotion of sustainable management of forests through Communal Forestry.	INAFOR FAO Community forestry businesses
Environmental Emergencies or natural disasters	Hurricanes, mud slides, flooding, drought	Pacific Caribbean	Management of environmental risk management Projects in 70 municipalities throughout the country. Risk management of disasters due to climate change	Presidency, MAGFOR, INETER MARENA-DGEA INAFOR, SE-SINAPRED, Civil Defense, Red Cross
Insecurity in land tenancy	Squatters, peasants, the displaced	Caribbean, Pacific and North	-Registering over 65,000 rural and urban land titles in the Pacific, Central and Northern Region of the country. -Registration of Indigenous Communities 15 registered Territories, inhabited by 214indigenous and afro-descendant communities. Registered territorial extension of 22,478.996 Km^2, approximately 103,790 beneficiaries.	Presidency INIDE CONADETI GRAAN GRAAS URACCAN
Promotion of mining activities.	Mining Companies,	Central, Caribbean	More control over the environmental impact of mining activities, implementation of environmental law and environmental impact studies (EIA)	MEM MARENA

In the next table we present a detailed analysis of the main direct and underlying causes linked to deforestation and forest degradation, as a starting point to propose guidelines and strategic actions, necessary activities and resources, to reverse the phenomenon, according to hierarchy, in a manner consistent in time and space, approaching the underlying cases more than the phenomenon itself.

TABLE 17: Deforestation and Forest Degradation Causal Analysis, the Presumed Origins and Some Action Proposals for Foreseen Causes

Direct Causes	Underlying Causes	Origin of the Cause	Strategic Actions proposed for identified causes
Environmental Forest Governance Arena			
Weakness of the inter-institutional coordination, monitoring and assessment mechanisms	- Topic is not a priority on the policy agenda - Institutional activism is distanced from long term priorities Limited institutional environmental vision	Institutional weakness	Strategic planning and organizational study, Broaden the technical and technological capacity strengthen the analytical capacity of the production cabinet members and of Level 1
Incomplete Agreements with displaced groups	Policy juncture and peace efforts.		Implement coordination of the property and territory reorganization processes.
Invasions of Indigenous communities land	.- Search for fertile soil/land for agriculture (Basic Grains) Economic interest in precious wood trees Lack of indigenous areas delimitations	Weak territorial Government, Inappropriate use of technology	Broaden the institutional territorial coverage, research, innovation and development of technologies; knowledge management; stop the expansion of the agricultural frontier
limited territorial presence of judicial power	.- Budget Insufficiency to tend to the basic needs of local offices Low institutional priority for environmental problems	Institutional weakness	Strengthen the institutional capabilities to manage economic resources; Strengthen the analytical capabilities of the production cabinet members
Local institutional Presence (INAFOR, MARENA, INTA, MAGFOR)	.- Budget Insufficiency to tend to the basic needs of local offices	Institutional weakness	Strengthen the institutional capabilities to manage economic resources
Local institutional presence (police, army, PGR, Attorney General)	.- Budget Insufficiency to tend to the basic needs of local offices Low institutional priority for environmental problems .-Institutional priorities focused on common crime and other crimes	Institutional weakness	Alignment of the political and regulatory framework
Socio-Cultural Arena			
Search for income opportunities by poor rural families	- Lack of capabilities to generate new alternative business Outdated, unprofitable production technology management that is detrimental to the environment - Means used by large	Technologic Deficiencies	Technology research, innovation and development; Knowledge management; Create and strengthen structures with a business focus

	producers to expand their exploitation areas		
Temporary Societies and uncontrolled sharecropping	- Lost or handicapped productive areas which are no longer able to produce enough food for animals Low cost business opportunity for low income producers; Weak organization of business focused producers	Technological deficiencies, weak business capabilities	Technology research, innovation and development; Knowledge management; Create and strengthen structures with a business focus
Limited recognition of the social value of forests to the indigenous peoples vision	The commercial focus of goods and services prevails	Weak business capabilities	Knowledge management
Ignorance of laws, transactions, regulations, norms, etc at the rural level	-Poor dissemination of laws, norms, legal procedures, in communities distant from the urban areas. Low level of schooling in communities Poor dissemination in indigenous languages	Human Capacity	Dialog and Environmental Awareness

TABLE 17: Deforestation and Forest Degradation Causal Analysis, the Presumed Origins and Some Action Proposals for Foreseen Causes

Direct Causes	Underlying Causes	Origin of the Cause	Strategic Actions proposed for identified causes
Environmental Forest Governance Arena			
Weakness of the inter-institutional coordination, monitoring and assessment mechanisms	.- Topic is not a priority on the policy agenda .- Institutional activism is distanced from long term priorities Limited institutional environmental vision	Institutional weakness	Strategic planning and organizational study, Broaden the technical and technological capacity strengthen the analytical capacity of the production cabinet members and of Level 1
Incomplete Agreements with displaced groups	Policy juncture and peace efforts.		Implement coordination of the property and territory reorganization processes.
Invasions of Indigenous communities land	.- Search for fertile soil/land for agriculture (Basic Grains) Economic interest in precious wood trees Lack of indigenous areas delimitations	Weak territorial Government, Inapropriate use of technology	Broaden the institutional territorial coverage, research, innovation and development of technologies; knowledge management; stop the expansion of the agricultural frontier
Limited territorial presence of judicial power	.- Budget Insufficiency to tend to the basic needs of local offices Low institutional priority for environmental problems	Institutional weakness	Strengthen the institutional capabilities to manage economic resources; Strengthen the analytical capabilities of the production cabinet members
Local institutional Presence (INAFOR, MARENA, INTA, MAGFOR)	.- Budget Insufficiency to tend to the basic needs of local offices	Institutional weakness	Strengthen the institutional capabilities to manage economic resources
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Socio-Cultural Arena			
Search for income opportunities by poor rural families	.- Lack of capabilities to generate new alternative business Outdated, unprofitable production technology management that is detrimental to the environment	Technologic Deficiencies	Technology research, innovation and development; Knowledge management; Create and strengthen structures with a business focus

	.- Means used by large producers to expand their exploitation areas		
Temporary Societies and uncontrolled sharecropping	- Lost or handicapped productive areas which are no longer able to produce enough food for animals Low cost business opportunity for low income producers; Weak organization of business focused producers	Technological deficiencies, weak busines capabilities	Technology research, innovation and development; Knowledge management; Create and strengthen structures with a business focus
Limited recognition of the social value of forests to the indigenous peoples vision	.-The commercial focus of goods and services prevails	Weak business capabilities	Knowledge management
Ignorance of laws, transactions, regulations, norms, etc at the rural level	.-Poor dissemination of laws, norms, legal procedures, in communities distant from the urban areas. .-Low level of schooling in communities .-Poor dissemination in indigenous languages	Human Capacity	Dialog and Environmental Awareness

Direct Causes	Underlying Causes	Origin of the Cause	Strategic Actions proposed for identified causes
Weak coordination between GTI and State institutions	.- Little State institutional presence in distant rural sectors .-Lack of local capabilities to respond to the problem .-Lack of institutional policies to tend to the problem .-Lack of clarity in visualizing the problem	Institutional weakness	Carry out and organizational study and articulate a strategic plan for each institution; Strengthen the institutional structures of forest governance
Indigenous peoples' weakness to defend their territories	.-Difficulty to apply the rights conveyed to them by law and inability to put them into practice. .-Weak indigenous institutions subjected to the vision of the leaders of the moment. .-Little support from competent institutions for the protection of indigenous territories.	Weak territorial governance	Strengthen the land ownership system and reorgannization in conflict areas.

Uneven deforestation benefit distribution	.-Monopolized commercial structure focused on the sale of round wood or at its first processing stages. .-Weak local capabilities to develop diverse viable economic alternatives with forest products. .-Poor negotiation skills of the titleholder tree owners.	Weak commercial structure.	Create and strengthen organizational structures with a business focus
Financial Arena			
Higher opportunity costs than the forest			Apply incentives to reduce significant differences in opportunity costs.
Presence of financial institutions	.-Financing of agricultural and cattle raising activities which increase forest degradation	Financing without and environmental vision	Alignment of the political and regulatory framework
Value chain influence			Research, open new markets
The market does not quantify nor value environmental services	.-Technical and institutional incapacity to generate the requirements or comply with the procedures to acknowledge those resources .-Tradable volumes that have not been labeled to attract markets for these services	Technical weakness, value chain weakness	Knowledge management
Taxation measures	.-Tax payments directly related to the condition of the farm, the better the condition of the farm the higher the tax rate .-An Exoneration policy for agricultural activities encourages their increase.	Weak political and regulatory framework	Alignment of the political and regulatory framework
Lack of control over commercial permits linked to the informal market	.-Institutional incapability to provide protect from and control , the informal market at a national level	Institutional weakness, weak territorial governance	Broaden the territorial institutional protection coverage , strengthen the institutional forest structures and governance
Few incentives for alternative markets for agro-forest products	.-Financial institutions interested more in the profitability of their operations than in socio-economic development .- Little private or institutional capabilities to develop alternative markets	Financial weakness, value chain weakness	Develop financial incentive mechanisms

Budgetary limitations of key institutions	.-The environment is not considered a priority in the national budget .-Poor budgetary management over run by burocratic administrative procedures	Financial weakness, istitutional weakness	Strengthen the institutional capabilities to manage economic resources
Direct Causes	**Underlying Causes**	**Origin of the Cause**	**Strategic Actions proposed for identified causes**
Lack of economic alternatives (formal employment) for landless peasants	.-Weak capacity to generate profitable and sustainable economic activities in all the economic sectors of the country .-High dependency on external hiring as unqualified manual labor	Weak capacity to generate business, weak value chains and access to markets	Knowledge management, research, open and develop markets, promote the development of new eating habits, create and strengthen organizational structures with a business focus
Lack of financial mechanisms to reduce deforestation	.-State Institutional weakness to manage economic resources while supporting the environment .-Institutional incapacity to visualize new alternative economies to fianace environmental activities	Financial weakness	Implement the forest voucher, develop financial incentives mechanisms
Low value of land in the agricultural frontier zones	.-Poor access roads .-Personal and well as land insecurity Difficult access to agricultural products markets	Weak capability to access markets, technological weakness	Create and strengthen organizational structures with a business focus

Legal Arena			
Level of implementation of forest and environmental laws	.-Institutional incapacity to implement these laws in areas where the forests are most affected	Institutional weakness	Broaden the institutional protection coverage, strengthen the institutional forest governance structures
Land speculation	.-Insecurity in legal land ownership Illegal ownership	Institutional weakness, weak territorial governance	Strengthen the land ownership system and reorgannization in conflict areas.
Illegal land ownership	.-Lack of organization in the national registry, primarily of indigenous land	Institutional weakness, weak territorial governance	Strengthen the land ownership system and reorgannization in conflict areas.
Lack of livestock registration	.-Lack of regulation and organization of activities in State institutions	Institutional weakness, weak territorial governance	
Lack of property	.-Institutional incapacity to	Institutional weakness, weak	Strengthen the land ownership system and reorganization in

registration	provide ofice space, particularly in the autonomous regions of the country	territorial governance	conflict areas.
Little cattle control mechanisms	- Poor policies and laws to effectively regulate and organize this activity Poor institutional presence in higher intensity zones where this activity is carried out	Institutional weakness, weak territorial governance	Alignment of the political and regulatory framework
Complicated bureaucratic transactions to sell wood (INAFOR)	-Improperly guided regulation policies and rules, tainted procedures and gaps that allow for personal interpretations	Institutional weakness, weak territorial governance	Alignment of the political and regulatory framework

5.- Some of the national efforts to reverse the causes of deforestation and forest degradation

The first national activities to protect the forest resource were laws such as: The Preservation of Natural Resources Law (1958) and the Conservation, Protection and Development of the Countries Forest Resources Law (1967). Nevertheless, at this time forest policy established that the forests belong to the State and not to the landowner, which was a disincentive for those who wanted to manage the forest. Forest concessions of areas from 1,500 to 15,000 km2 could be given by the State. Within this structure, forest concessions were encouraged by foreign investment. This system didn't favor the internal market nor did it favor forest activities. In fact, during this time timber exploitation degraded and deforested large extensions of natural forest.

As of 1979, big advances are made in environmental and forest management. The Institute for the environment and Natural Resources (IRENA) was created and forest concessions, that saw their AUGE from 1960 to 1080, were canceled. The National Parks Services was created in 1980. But political instability and war hindered forest production development during that period. Moreover, between 1980 and 1990, the forest royalties increased, which encouraged agricultural expansion towards the Central and Atlantic regions of the country, as well as coffee and cotton crops in the Pacific region. The increase in grazing pastures proves that regions quickly changed the forest scenery land to one of agricultural use , given that in 1977 there were 3.1 million ha of pastures and by 1991 they had reached 5.0 million ha (FAO, 1992).

In the early 1990s, the main sectoral laws with an incidence on the forest sector were: land policy, industrial development policy and tourist policy, all of which had a negative influence on the country's forest development. For example, land policy promoted and awarded forest land to forest plaintiffs (most of them from those displaced by war and repatriated citizens). In addition, this land designation process was not accompanied by a process of titling and registration, increasing land ownership instability and confusion regarding the status of the forests and patrimony. Both of these elements led to the devaluation of natural forests in the country.

Likewise, the restructuring and industrial development policies established for the 1995-2000 period, did not take into account the development of the forest industry, and to the contrary, it limited forest activity to extraction, planting and the production of wood products of first transformation. In addition, insufficient promotion mechanisms were available to reactivate the forest industry and modernize forest technology. As a consequence of this lack of promotion and support, obsolete equipment is maintained, there is poor development of the forest chain and low forest products exports.

During the year 2000 until now, a series of initiatives in the forest sector have SURGED such as, larger extensions of forest plantations for commercial as well as protection purposes; increase in rural, ecological or mountain tourism; promotion of natural forest certification, among others, which has given a boost to sustainable forest management, restoration and reforestation of degraded areas and of other lands outside of the forest areas. But, each of these forest initiatives or project s are not seen as part of a national program in favor of the development of the forest sector.

The national Policy on Beef Cattle[48] is focused on improving the livelihood of all the stakeholders in the milk and beef chain, and to contribute to fight poverty and to guarantee food sovereignty and safety for all Nicaraguan people. It focuses on maintaining the ecological functions and recovering agro-ecosystems and working and promoting regulation programs with institutional and financial

[4848] In the final phase of discussion, national agreement and approval.

support in order to improve the cattle raising sector's environmental behavior. Incorporating improvements in the practices and management could promote an equitable relationship between environmental, socio-cultural and economic factors. This will allow to recover, maintain, develop and offered ecosystem services to Nicaraguan society and contribute to mitigation and climate change adaptation.

Thanks to the Cattle Policy, instruments can be design and executed, and their INTERVENTIONS will be supported within the policy guidelines These instruments will guide the production of quality competitive products, which will make it easier to market them in a sustainable manner, guaranteeing taking care of Mother Earth with an emphasis on reversing the damaged caused to her. Regulations to strengthen the organizational processes between stakeholders who have traditionally been marginalized, will also be incorporated.

Likewise, the objectives of the agro-ecological or organic production promotion law (Law No. 765, approved in 2011), is to promote the development of agro-ecological or organic production systems, through regulation, promotion and the support of activities, practices and process that are environmentally, economically , socially and culturally sustainable and that contribute to the restoration and conservation of the ecosystems and agro-ecosystems, as well as to the sustainable management of land. This law suggests the creation of a Agro-ecological or Organic Production Council, COPAGRO, as a national agency for agreement, assessment and consultation on agro-ecological or organic production policies, programs, actions and regulation to promote these activities, where a focus on gender should be incorporated in accordance to law No. 648 on "Equal Rights and Opportunities". It is proposed that this commission become a part of the implementation mechanism of the ENDE-REDD+.

Additionally, this law establishes a certification registration and national and international accreditation, aimed at promoting and applying tax incentives[49], facilitate transactions[50], access to credit[51] and other types of incentives that municipal and regional governments can implement within the framework of their powers. This initiative combined with the incentives proposed in the ENDE-REDD+ hopes to have an impact at the medium term in terms of the adoption of agro-ecological production systems as well as forest and agro-forest systems.

Another important effort of the Government of Nicaragua, associated to this law, is guided towards the implementation of the Sustainable Agricultural productivity Promotion Program[52], to be executed by MAGFOR and INTA, organized in two components: i) Support sustainable production management and promotion, including agro-ecological production (US$21.0 million), and ii) Strengthen agricultural technology innovation. (US$19.0 million). Logically, this program does not pretend to be able to respond to such a huge challenge as this, at a national level, but it is profiled as a good agricultural productivity and environmental conservancy alignment instrument.

[49] Through the revision of the taxation nomenclature executed by the Minister of HOUSING and Public Credit.
[50] Law No. 691, "Law on Simplification of transactions and services in Public Administration", published in the GACETA, Oficial Diary No. 144
[51] According to Law No. 640, "Law creating the Production Promotion Bank" (PRODUZCAMOS) published in the GACETA, Official Diary No. 92 on May 23, 2009. Within the agro-ecological or organic production promotion policies and the special credit programs of the PRODUZCAMOS Bank, special attention and preference will be given to products and producers with production systems EN ROUTE towards forest restoration, soil regeneration, water reservoirs and biodiversity conservation.

[52] Through a loan by the IADB, (NI-L1067), of 40 million US dollars

Lastly, another important instrument to use is the Executive Decree No. 78-2002. (Rules, guidelines and criteria for territorial reorganization), pots out that the territorial reorganization should contain certain important elements: dedicated zones for economic activity, protected nature zones and restricted use zones. In theNicaraguan Technical Norms for Soil Use and Management (NTN 11 020 – 07), and taking into consideration the socio-economic reality of the municipalities, the following categories were established: i) Agriculture with few to moderate restrictions (A), ii) Agriculture with strong restrictions (Ar), iii) Agro-forestry with annual crops (Afca), iv) Forest grazing systems (Ss), v) Agro-forestry with permanent crops (Afp), vi) Forest land for exploitation and production (F), vii) Forest land of limited exploitation (Fr), viii) Wild life protection (PVS) . The application of this decree should probably be applied in a more effective manner. ENDE REDD+ should be focused on strengthening the establishment and management of the last six categories of soil use.

Summary of results of the Inclusive Rural Development Sectoral Committee on April 13, 2012.

Carry out agricultural zoning based on water basins ; including promoting the shared management of basins**.** To achieve this, it is necessary to strengthen the producers organization to facilitate the management. of basins.

It is recommended that the cattle ranchers prepare a strategy for the transition from extensive cattle raising to intensive cattle raising in farms, as well as indicators to measure the improvement or damage to Natural Resources from cattle raising activities.

Strengthen the research and technology innovation system. As part of this strengthening process, a set of adaptation and mitigation practices that can be adapted to agricultural production systems, were shared. Among these are: Water harvesting, efficient irrigation, drought resistant crops, plague management, hydrographic basin management, revitalization of traditional knowhow, recovery of vegetation coverage in recharge areas, good agricultural practices, community seed banks, local genetic resource conservation adapted to drought and floods, farm planning, promote local food programs and peasant market programs, consultation materials such as guides and/or encyclopedias on the agro-ecological production systems.

It is recommended to instate a good practices systematization that takes into account the recovery of local ancestral knowledge and practices keeping in mind (SENTENCE WAS INCOMPLETE)

For the Agricultural Extension system, it is recommended to institutionalize the extension methodology, among these: Farmer to Farmer program, Sectoral Promoters, multi-thematic and sectoral Farmer Field Schools.

Adequate water resource management: Improve the hydrologic conditions of the bodies of water, ensuring technological practices that increase water infiltration, control runoff, control currents, rivers, creeks, manage groundwater, irrigation and associated infrastructure.

TABLE 18. Cattle Raising Sector Proposal Summary: Transition from Extensive Cattle Raising to Intensive Cattle Raising with a more rationed use of natural resources.

Forest Governance Elements

The forest governance process in the country began between 2006-2007. Forest governance is based on three basic principles defines as: 1) The country's sovereignty and direction, 2) Coherence and integration within the forest sector as well as externally, and 3) Association and participation. The Government adopted the governance focus proposed at the United Nations Forum on Forests in 1997, under the concept of National Forest Programs.

The current governance challenges the country faces are: i) a coordinated legal framework between the Agricultural-Forest-Environmental sectors, ii) dialogue between the government-private-community levels to resolve conflicts and facilitate cooperation, iii) monitoring and control mechanisms, iv) paradigm shift if the forest resource use: from exploitation to sustainable management, v) fiscal and monetary incentives for sustainable forest management, vi) strengthen local stakeholders capabilities, reduce the existing dependency gap, promote efficient and sustainable production activities around the forests.

Since 2007 Nicaragua began a process to establish in a participatory manner the National Forest Program (PFN) of Citizen Power 2010-2014. The PFN became the coordination platform between the public and private sector linked to forest ecosystems in the country. The PFN also has a close relationship with the national framework of national policies such as the National Fund for Human Development and is the instrument to implement the National Policy on Sustainable Development of

the Forest Sector of Nicaragua. In annex 1a-3 we present a detailed outline of the consultation process on forest law and the participatory process developed in the PFN.

In Nicaragua the main achievements reached in the governance process have allowed for significant advances in communication and alliances with regional governments of the Autonomous Regions of the North and South Atlantic, which has allowed an active participation of the indigenous communities representatives in the country, and has promoted local participation and consultation of the different stakeholders involved and interested in the development of the forest sector in the country.

The main achievements to date on governance themes are summarized as: i) established a decentralized agreement mechanism (Forest Governance Committee), ii) coordinate a forest policy/strategy, iii) territorial consultation platform (policy, biodiversity, soil, basins, food security and REDD+), iv) Central American cooperation platform (PERFOR, ERA), v) alliance with different public institutions, such as: MAGFOR, MARENA, INAFOR, FONADEFO, GRAAS, GRAAN, AMUNIC, as well as international organizations that collaborate during the different steps of the process: GIZ, FAO, Common Fund (Finland, Switzerland, Sweden, Norway), VERIFOR, CATIE, CIFOR, Global Witness, among others.

Restitution of the rights of indigenous and afro-descendant peoples of the Caribbean Coast

Deforestation and forest degradation represents a serious problem for the communities dependent on the forest ecosystems[53], which can be grouped in two large camps according to their historical characteristics, thise who suffered the Spanish colonization in the Pacific and Center, and the indigenous peoples that have prevailed as a culture and an organized community, with their own traditions and expectations

In general, the indigenous peoples have preserved their habitat in the farthest areas of the Atlantic, central and northeastern zones, where the tropical wetlands are found. Currently, indigenous peoples represent 10% of the national population and they are distributed in approximately 59 thousand square kilometers of territory. The national forestry inventory estimates that the indigenous peoples of the Caribbean Coast occupy almost 50% of the country's forested territory.

As part of their vision, the interaction of the indigenous peoples with their natural ecosystems has been constant throughout history y carries different meanings. The forests are viewed as a vegetable community of many species, wooded, medicinal, fiber, food and others, for humans and animals, in which reciprocal influence is evident between vegetable species, the soil, the atmosphere, the environment and the geographic landscape. The forests also represents the leading source of energy, the natural habitat of wild life, and therefore a source of food and healing, as well as of sacred rituals (Thompson,sf3).

The deforestation and forest degradation process represents a direct threat the the relationship between the indigenous communities and nature, due to illegal wood felling, timber concessions to transnational companies, forest and agricultural fires, the loss of biodiversity (native flora and fauna), among others.

Over the last 5 years, certain rights have been restored to the indigenous peoples and communities, among them, the demarcation, entitlement and title transfer of their ancestral land, that are mainly in

[53] Thompson H. Indigenous peoples and natural resources in Nicaragua. CEDUPAZ. /Molina, C., *Facing the third millennium: the indigenous and multi-ethnic vision*. 1998. (Analysis Document) Brochure

broad leafed and conifer forested areas. The entitlement and transfer process can be seen in the following table.

TABLE 19: Summary of the property titles transfered to indigenous communities and afro-descendants (Created based on data provided by the Caribbean Coast Secretariat)

Year	Territories	No. of Communities	Extension of Territory (Km^2)	Indigenous Peoples Benefited (Inhab.)
2007	5	85	5,756.02	34.267
2008	2	*17*	*3,147.01*	*10.843*
2009	5	*50*	*6,415.80*	*17.485*
2010	3	*63*	*7,160.17*	*41.195*
2011	2	*39*	*6864.32*	*27.428*
Total until 2011	17	254	36,207.64 (30.1%)	96.051
In process in 2012	5	79	7.345	30.694
Grand Total	**22**	**333**	**43,552.64** (36.2%)	**126.745**

In 5 years the GRUN has handed over property titles a over 250 communities belonging to 17 indigenous territories of the Caribbean Coast, native peoples and afro-descendants of the Caribbean Coast of Nicaragua, **equivalent to 30% of the national territory**(over 36 thousand ha of land), benefiting almost one hundred thousand inhabitants, recognizing and restoring the rights of these peoples as owners of their land. Another 5 territories are undergoing this entitlement process, which would complete over 36% of the national territory[54].

In addition, in the majority of the territories, their authorities have been recognized, and Indigenous Territorial Government (GTI) have been constituted, with the power to manage their own territories. An important matter that is still pending with part of these territories refers to their**territorial reorganization process**. These territories were indefinitely occupied over a large number of years by colonists, who in the last decades have settled in these territories and others claimed by the indigenous peoples. Due to the delicate nature of this situation, this Government has proceeded with extreme care. There is a permanent dialog with the GTI and the implementation plans of cohabitation and reorganization that allow for non-violent alternatives, as well as the implementation of conflict resolution instances, facilitate the fluidity of these processes.

Considering the availability of forests, the priority that these peoples have had over the last years and the problems that persist in the in relation to the environmental and forest governance mechanisms of the indigenous territories (see deforestation causes matrix, 2.a), the strengthening of governances and organization process of the indigenous territories is proposed as a strategic guideline for this ENDE (section 2.b).

Updating the joint management plan for the BOSAWAS Biosphere Reserve

In 2011, with the support of the core project of the biological corridor of the Trans-border Reserve, carried out by MARENA and financed by the World Bank, the management plan for the BOSAWAS

[54] A territorial extension larger than 60 of the worlds countries, including China, Taiwan, Belgium and El Salvador.

Biosphere reservation was updated[55] located in the RAAN, emphasizing that the plan was developed jointly and formally accepted by the six GTI that form it, with a presence in over 80% of the core zone. This aspect is relevant for the ENDE-REDD+ strategy because the territorial extension with forest cover in these territories is approximately 88.9%. Additionally, the exchange rates over the last 5 years of the indigenous territories in BOSAWAS are 9 times lower the the average municipalities with "mestizos" present in the buffer zone[56]. This initiative has had important advances in the development of instruments to monitor of the effectiveness of the management of the reservation through socio-environmental indicators validated and applied by the indigenous communities, which represents an significant contribution to the ENDE-REDD+.

The establishment and operation of a new ecological brigade of the Nicaraguan Army

In January 2011, the Nicaraguan Army signed Order No. 7 for the establishment of the Ecological Battalion. This Order established that the creation of the Battalion should be done through the reinforcement and restructuring of the forces of the Mountain Military Detachment; prepare it and equip it to protect, in compliance with the laws aimed at the protection of the most important Reservations and Protected Areas of the Country. For this Army, the preservation of the Natural Resources, its 72 protected areas, and particularly BOSAWAS and the Indian Corn Reservation, is a matter of National Security, because, aside from the preservation of the flora and fauna that exists there, the most important water basins of the country are on these reservations, and because they are renewable life and energy sources for the people of Nicaragua.

It is important to point out the excellent coordination and support relationships between other national institutions like MARENA, INAFOR, the MAGFOR, the Regional Governments, the Indigenous Territories Governments, the Environmental Organizations, the Attorney General, the Public Ministry, that along with the population, work firmly to stop this environmental devastation. Even if coercion is not the most desirable instrument, in certain circumstances, it is the only one that can guarantee the common good, and combined with incentives and education, will improve its effectiveness and sustainability. These achievements comply with the political will of the current Government in giving a high priority to the environment and adapting to climate change, including integral forest management, as well as popular participation and the restitution of rights to native peoples.

Opportunities of the governance process and the ENDE-REDD+ mechanism

The experience of Forest Governance in Nicaragua represents an opportunity for the promotion of the ENDE-REDD+ mechanism, because the members that form the agreement structures at every level (national, regional and territorial) are key stakeholders that are also directly linked to the RDD+ theme.

The territorial committees' representation is currently formed by: State institutions representatives linked to the forest and environmental themes, non-governmental organizations, small and medium private forest enterprises, forest owners associations, indigenous groups, women's associations, Forest professionals association of Nicaragua, municipal governments, autonomous regional governments of the Caribbean Coast and civil society representatives. It is also important to mention that in the territorial level Forest Governance Committees, 29% of the leaders are women, that participate actively in decision making and represent their community.

[55] La Biosphere BOSAWAS reservation, recognized by the Man and the Biosphere Program (MAB-UNESCO), with an area of 19,926 km^2, represents 15.25% of the country's surface. The core zones with 8,065.93 $km^2$and the buffer zones with 11,861.96 km^2.

[56] MARENA; 2011; Joint Management Plan for the BOSAWAS Biosphere Reservation 2012-2017

Nevertheless, strengthening Forest Governance is a key activity to achieve significant and sustainable reductions, which implies, among other things, broadening the participation of interest groups according to the inter-institutional roles associated to the theme, as well as, strengthening the inter-institutional and inter-sectoral coordination capabilities to ensure a decision making process that is transparent and inclusive.

Taking into account that the ENDE-REDD+ strategy demands a high level of participation, one of the key aspects to consider is, as a first step, the socialization of information. In this sense the consensus forum created by the forest governance to date and strengthened inter-institutionally and inter-sectorally, provide an ideal platform for this purpose.

Another key aspect where the forest governance of Nicaragua represents an opportunity for ENDE-REDD+ is that with this experience, participative monitoring mechanisms were formalized and applied to the National Forest Policy consensus and the National Forest Program was implemented. This has generated national and local capabilities that can be used for monitoring the ENDE-REDD+ activities as a type of social audit to promote transparency.

The laws, policies and pertinent matters related to land ownership and the rights to resources and the traditional use of land by indigenous peoples; titling of indigenous land; indigenous claims over additional "extensions" of land and the delimitation process according to land titles; the way accountability is and will be approached in the income distribution system; the effectiveness of applying the laws; and how the coordination of the actual political processes take place, specially related to decisions on land use.

Limitations to implement the Reduction of Deforestation and Degradation of Forests under the international mechanism REDD+

Limited techniques and technology capabilities in national institutions linked to the environmental and forest sector,

i. There is a weak and insufficient conservancy and forest management promotion policy,

ii. Weak and insufficient environmental and forest planning and monitoring system. For example: Nicaragua doesn't have sufficient environmental and forest indicators to evaluate if the state of the national deforestation and forest degradation is advancing or being reduced,

iii. Weak inter-institutional coordination to develop a real environmental and forest monitoring system in the country,

iv. The planning divisions of the environmental and forest sectors focus on the physical and financial execution, and not on the technical aspects in terms of the state of the forests,

v. Projects generate their own monitoring system, but there isn't a national environmental and forest monitoring system to build a national ACCOUNT of the advances made

vi. The approach to deforestation and forest degradation in the current national strategies is not being applied with an integral focus (direct and indirect causes versus direct and indirect effects), the data and information available require significant improvements in order to comply with national and international requirements.

Recognizing the existing threats and weaknesses in the institutional, regulation and political framework in the forestry sector, the Government began work between 2007 and 2008, to make adjustments to the National Policy on the Sustainable Development of the Forest Sector in Nicaragua. This policy was reviewed and updated by the Forest Governance Committee of Nicaragua that is part of the Forest and

Agricultural Ministry (MAGFOR), the Environment and Natural Resources Ministry (MARENA), the National Forest Institute (INAFOR), the National Fund for Forest Development (FONADEFO), the Regional Autonomous Governments of the North Atlantic (RAAN) and South Atlantic (RAAS), the Nicaraguan Municipalities Association (AMUNIC), the Forest Professionals Trade Union Association(AGREFOR), Indigenous Peoples, afro-descendents and ethnic communities, among others, in response to the adjustment and updating requirements of Decree No. 50 – 2001[57]. Therefore we can say that it is a renewed forestry law that includes the current sentiment and circumstances of the Nicaraguan forest sector.

In this context a broad consultation and agreement process was initiated with over thirty five hundred leaders from all the departments and regions of Nicaragua. The activities are briefly described below:

1. A territorial consultation and coordination with stakeholders of the forest sector and the Citizen Power Cabinet, from February to July 2007;

2. An national workshop with the leaders named by the Forest Governance platform of the departments and the Autonomous Regions of the Atlantic of Nicaragua, July 12, 2007;

3. A workshop of national and international experts in Environmental Policy, Natural and Forest Resources , July 26 and 27 , 2007

4. The presentation to the authorities by the Regional Councils of the RAAN, RAAS and AMUNIC , July to August, 2007

5. General review and approval on behalf of the National ForestCommission (CONAFOR), December 14, 2007

6. The presentation to the various delegates of the Citizen Power Cabinets, November 2007 to March 2008

7. A conciliation, alignment and adjustment of this forest policy with the Political Constitution of Nicaragua and with the policies, approved or driven by the Reconciliation and National Unity Government, was carried out from November 2007 to April 2008:

a) Food Security and Sovereignty policy and it's new proposal;

b) Territorial Reorganization Policy;

c) General Land Policy;

d) Hydrographic Basin Management Policy Proposal;

e) Nicaraguan Industrial Policy Proposal;

f) Nicaraguan Biodiversity Policy Proposal;

g) Nicaraguan Biotechnology Policy Proposal;

h) Access to Financing for the Rural Sector Policy Proposal;

i) Other environmental and rural policies propelled in 20017 and 2008

[57] Decree Document available at: http://www.inafor.gob.ni:8080/legislacion_normas/PDF/Decretos/Politica%20Forestal%20de%20Nicaragua,%20Decreto%2050-2001.pdf Decree Document available at: http://www.inafor.gob.ni:8080/legislacion_normas/PDF/Decretos/Politica%20Forestal%20de%20Nicaragua,%20Decreto%2050-2001.pdf

8. In June of 2008 the National Forest Commission (CONAFOR), the highest forest sector consensus authority, approved the forest sector National Sustainable Development Policy of Nicaragua. This approval counted on the consensus and acceptance of the different sector and entities that were consulted[58].

The main results and future steps of this process are:

1 A broadly consulted forest policy that includes adjustments in the transversal guidelines of: I. Forest Governance, II. Decentralization and III. Territorial reorganization and of specific lines to the sector, such as: I. Access to resources, II. Forest promotion and, III. Community forestry y IV. Value chain coordination.

2 Each one of these guidelines were complemented by financing mechanisms and economic instruments, that should be driven and implemented by the institutions of the Nicaraguan States to fulfill the goal of sustainable development of the Nicaraguan forest sector.

The Government through its institutions will continue to promote within the different phases of the ENDE-REDD+ framework the following: I. Environmental and Forest Communication, Dissemination and Education, II. the construction of the National Forest Program (PFN), III. the development of Avoided Deforestation Initiatives, IV. the design of mechanisms that promote socioeconomic retributions for environmental services, V. the National Reforestation Crusade y VI. community forestry with forest sector and Citizen Power leaders, including groups of afro-descendants, indigenous peoples and ethnic communities

Plans, programs and projects for the reduction of deforestation and forest degradation

The 69-2008 Presidential Decree: National Forest Sector Sustainable Development Policy of Nicaragua, published in the Official Gazette No. 03 of January 7, 2009, in Chapter V. on the Finance mechanisms and economic instruments guidelines, maadated in Article 23. Numeral 5. "Mechanisms for the reactivation and capitalization of the National Fund for the Environment (FNA) will be promoted, which will be administered by the Environment and Natural Resources Ministry to manage the environmental and capitalization services of the Forest Development National Fund (FONADEFO), appointed to the National Forest Institute (INAFOR), for the sustainable forest repositioning and management in the Nicaraguan hydrographic basins" mandates the continuation of the capitalization process of FONADEFO, as one of the financial mechanisms that the government will make available to the Nicaraguan people to tend to the requirements linked to production, protection and conservation of the forest ecosystem's goods and services.

[58] The policy was managed and supported in a strategic alliance of the Program for the Sustainable Management of Natural Resources and Business Skills Development (MASRENACE/GTZ), Local Governance and Development Program (PROGODEL/GTZ), the Forest and Agricultural Biodiversity Project for Food Security of the Food and Agriculture Organization of the United Nations (FAO/FNPP), the Agency for the Development of Austrian Cooperation - PRODESOA (ADA), Rainforest Alliance (RA) – United States Agency for International Development (USAID), Forest Law Enforcement and Governance (FLEG/ BM), Tropical Agronomic Research and Teaching Center (CATIE), Araucaria Project/MARENA, Sustainable Land Management Project (MST/MARENA), Executive Secretariat of the Central American Environment and Development Commission (CCAD), the Embassy of Brazil in Nicaragua, the competitive funds for Development Policies and Agricultural and forest Sector Strategies (PASA-DANIDA) and the Agricultural Technology Project of MAGFOR (PTA II BM).

In Nicaragua, forest and environmental incentives have been applied, but in a localized way or by particular projects, in one territory, but the attempt here is to promote a mechanism of massive but guided coverage, in order to achieve an impact at a national level.

The Forest Grazing Support Fund - FONDOSILVA (1992-1997), (US$2.0 million, with the financial support of the Swedish Development Agency, ASDI) The incentive and disbursement plan for energy and timber plantations, consists on delivering an incentive for each activity carried out on the farm. The project functioned with 30% of the plantation costs being covered by the producer and 70% by the Fund. The average size of the plantations was of 12 ha per producer, and the way to ensure the technical and training assistance services to producers, was to provide 15% for technical assistance and training through private advisors, that were complemented by the National Forest Services technicians.

The Forest Socio-environmental and development Program (POSAF 1996-2008), during its two phases, was conceived in the framework of the Forest Action Plan of Nicaragua PAFNIC, aimed at the country's priority basins, based on the forest development potential, as well as at a high population pressure, suffering rural poverty, and an accelerated deterioration of natural resources, which is reflected in the territories high vulnerability. It also promoted the implementation of management systems and models of cattle raising associated with the forest, among them, forest grazing, and natural regeneration management with cattle, as a forest coverage recovery process. This model is promising due to its low risk, low unit costs, easy adoption and faster results than other systems, such as the plantations system.

The Corazón Transfrontier Biosphere Reserve Project (GEF Funds, World Bank) is developing a valuable experience with the indigenous communities of the Caribbean Coast, under the protected areas jurisdiction. Along with other projects such as, PAGRICC MARENA BID, the araucaria project, the Marribios project, the integrated basin management project of Lake Apanás, ENEL BID GEF; the joint environmental window project PNUD MARENA and others.

To summarize, Nicaragua has experience in the use of forest socio-environmental incentives, with important lessons learned, that will be reintroduced in the ENDE in order to achieve higher efficiency and institutional sustainability of the instrument.

In so doing, it is important to recognize that the abovementioned incentives have been limited with the completion of the project and that the country has not been able to finance in a substantial and sustainable way a national mechanism for this subject area, even though it is well defined and is functioning. The aim with the ENDE strategy, is to institutionalize and standardize the incentive model in a sustainable manner through a Nicaraguan State mechanism. To this effect the existing legal framework, specific to the forest sector will be used.

Finally , to carry out the analysis of the direct and indirect causes of deforestation and degradation, as well as the strategic lines and actions to confront them, a process of information exchange, dialog and consultation with key stakeholders of the public and private sector has been developed, which includes authorities form the different levels (national, regional, municipal and territorial), forest owners, indigenous community leaders, academics of the sector, trade union representative, NGO's; taking into account the vision of the ancestral peoples, as well as a gender focus; creating the political, social and organizational base to respond to the guidelines of the preparation and development phase of the ENDE-REDD+ strategy.

Missing elements from these dialog, consultation and participation processes, will be developed in the R-package phase, with an emphasis on the social, environmental and indigenous peoples safeguards, through a process of previous, free and informed consent. Likewise, the results of this process will be

incorporated in the Environmental and Social Management Framework (ESMF), for monitoring and Control.

TABLE 20: Budget, Timeline and Activities Summary of the Assessment of Land Use, Forest Policy and Governance (Necessary Monitoring Activities)

Main Activity	Sub. Activity	Estimated Cost (in US$)				
		2012	2013	2014	2015	Total
2a1. Detailed analysis of the causes of deforestation and forest degradation (DD) and its relative importance by department and/or zone (RAAN, RAAS, the Segovias, Jinotega, Matagalpa) prioritizing the direct and underlying causes of DD	Multi-temporal and multi-criteria analysis at a regional and territorial level, including onsite control.	$200				**$200**
	Result validation by experts and institutions (meetings, workshops)	$20				**$20**
	Results validation of the analysis carried out at regional/territorial workshops with relevant stakeholders		$50			**$50**
2a2. Key elements review to formulate the ENDE strategy in Nicaragua	1) Analyze the current land use (according to the results in 2a1) and develop preliminary proposals about the possible REDD+ strategy measures , based on cost opportunity studies; 2) Assess possible conflicts and trade-offs between the elements of an REDD+ strategy and the sectoral, national and regional development objectives in the country; 3) evaluate the possible risks associated to the measures proposed en the REDD+ strategy,		$25			**$25**
	3) Validate the results of the study with experts, relevant institutions and national and regional stakeholders.		$10			**$10**
Total		**$220**	**$85**	**$0**	**$0**	**$305**
National Government						**$0**

FCPF	**$50**	**$100**	**$0**	**$0**	**$150**
UN-REDD Program (if applicable)					**$0**
Another Development Ally 1 (name)					**$0**
Another Development Ally 2 (name)					**$0**
Another Development Ally 3 (name)	$170	-$15	$0	$0	$155

2b. REDD-plus Strategy Options

Standard 2b the R-PP text needs to meet for this component: REDD-plus Strategy Options

The R-PP should include: an alignment of the proposed REDD-plus strategy with the identified drivers of deforestation and forest degradation, and with existing national and sectoral strategies, and a summary of the emerging REDD-plus strategy to the extent known presently, and/or of proposed analytic work (and, optionally, ToR) for assessment of the various REDD-plus strategy options. This summary should state: how the country proposes to address deforestation and degradation drivers in the design of its REDD-plus strategy; a plan of how to estimate cost and benefits of the emerging REDD-plus strategy, including benefits in terms of rural livelihoods, biodiversity conservation and other developmental aspects; socioeconomic, political and institutional feasibility of the emerging REDD-plus strategy; consideration of environmental and social issues and risks; major potential synergies or inconsistencies of country sector strategies in the forest, agriculture, transport, or other sectors with the envisioned REDD-plus strategy; and a plan of how to assess the risk of domestic leakage of greenhouse benefits. The assessments included in the R-PP eventually should result in an elaboration of a fuller, more complete and adequately vetted REDD-plus strategy over time.

Please note that, at this stage, the requirement is not to reach agreement on the REDD-plus strategy itself (as this would require analytic studies, consultations, etc., which are identified in the R-PP, but have not yet been carried out). However, if the national REDD-plus Strategy is already available, please provide it. Please provide the following information:

- **A summary of preliminary REDD-plus strategy options in the space below, and a description of the process proposed for developing and assessing various strategy options (in three to six pages);**
- **The budget and funding request in Table 2b (detailed budget and funding data go in Component 5);**
- **If necessary, attach the work program and/or draft input to ToR for activities identified to be part of the REDD-plus Strategy as Annex 2b.**

Add your description here:

ENDE-REDD+ Strategy Options

1 General Aspects

The purpose of this sector is to describe a series of principles and fundamental routes that will guide the ENDE-REDD+ implementation process (in force) and/or that will confront the causes of deforestation and forest degradation in the country, and therefore, contribute to reduce its green house gases emissions; likewise, we describes the proposed options to implement ENDE-REDD+ in the future. These proposals must feed back during the broader dialog and consultation process that will be developed with the different sector and key national, territorial and community stakeholders in the R-Package phase

It is important to point out that the structures that will be used and the activities that will be developed within the ENDE_REDD+ framework, are immersed and linked to the current lines of work of public entities that are directly or indirectly responsible for supporting the reduction of deforestation or forest degradation in the country. In the short, medium and long term, the future readiness and implementation of the ENDE-REDD+, based on the legal framework, will take into account the existing public and private structures, and in cases where it is necessary, the creation of new structures will be planned, that respond to the priorities of a national and sub-national ENDE-REDD+ outline, as mentioned in sections 1a, 1.b, 1.c.

There is an interest on the part of all the stakeholders involved to develop this national proposal that will influence in an effective way the productive processes, refurbishing them into systems that are sustainable and in balance with the environment. Because this has affected the productive capacity of natural resources, it has also affected the profitability and the capacity of agricultural activities, cattle raising activities and all other activities that are in some way related to natural resources, to generate wealth. To break this dynamic will require a clear, effective, broad and viable strategy to be carried out, and using as a starting point, the organizational capacity and the available human, technical and financial resources.

Issues to consider in the Strategic Approach

Chapter 2a clearly addressed the multiple causes and complexity in dealing with the effects of deforestation and forest degradation in Nicaragua, issues arising from policies and laws with low levels of coordination, habits and customs derived from a culture focused on ancestral productive exploitation of natural resources without due attention to the consequences.

Furthermore, government entities' limited operational and technical capacity, and institutional vulnerability processes that add to the problem, a lack of a national vision and a social apathy, that effectively influence the origins of the problem which is also fueled by economic, political, and social disadvantages among others. This necessarily forces us to think that a strategic approach should focus actions on reversing socio-cultural processes, both institutionally as well as within the population, generates the greatest impact with the least investment possible, and initiates a process of transformation that starts from the current situation and leads to the desired situation, strategic in its approach, but with the ability to be easily implemented so it can be adopted by the participating institutions and also be accepted by the general population.

The strategic approach focuses on sustainable livelihoods resources for the resolution of root causes that have a positive multiplier effect on the network of causes and effects, assuming the challenge of coordinating what is being proposed and what is already being done in terms of ENDE-REDD+, reverse the vision of the forest uses, and the use and management of natural resources to their benefit and to better take advantage of them, without affecting their integrity in the future.

A set of strategic options have been created that emerge from the causes previously identified (in section 2.a), advantageously selected to have a larger impact on the reduction of deforestation and forest degradation in the future, and ensure the sustainability of this reduction. The approach proposes an institutional reorganization and institutional strengthening, that initially prioritizes and focuses its activities on having an impact on territories that have been affected the most, that will allow a reversal of the current production dynamic, that focuses its attention on improving and taking better advantage of resources, with a focus on economic profitability according to general social and environmental needs.

In the guideline design we shall consider attacking the causes, with an emphasis on activities that have a larger impact on deforestation and forest degradation, confronting them from different angles according to their complexity. A case in point is cattle raising which, given its level of impact in the country and the origin of it causes, its negative effects will be confronted through the adjustment and alignment of the regulatory policy framework, the restructuring of the production systems, the development of incentives for the protection, conservation and soil use change, strengthening the commercial networks and value chains, and the improving territorial governance.

The approach suggests the following guidelines:

1. Strengthen the institutional capabilities and the governing forestry structures (national, regional, municipal and indigenous territories)

From here we propose attacking the institutional weaknesses in an integral manner, creating technical and human capacity that allow for an effective implementation of the policy, regulatory and normative framework at a national level, with a territorial focus[59]. This process emerges from the involvement of entities and organizations involved at the different organizational levels, proposed in the institutional arrangements described in section 1.a., to carry out an alignment process between the real institutional capabilities - technical and human - and the achievements anticipated from the policies, programs and activities.

Figure 11: Strategies and operations alignment in the implementation of ENDE-REDD+ for Nicaragua

The search for a political, normative and regulatory balance to reduce the effects of agriculture and cattle raising as the main activities that cause deforestation and degradation is necessarily implicit in this process.

[59] Taking into account some of the elements of the territorial, multidimensional, multi-sectoral focus, human, social and natural capitalization, urban-rural coordination, territorial value added, territorial differentiation and lastly territorial coordination.

Part of the institutional strengthening process entails the development of activities designed to ensure economic operability, identify institutional budgetary gaps and develop the strategic actions that ensure that the missing resources will be obtained through different means of financing.

It also suggests promoting changes in the taxation measures that currently promote extensive agricultural activities in the agricultural frontier zones.

Strategic Actions

a. Carry out an organizational study and articulate a strategic plan for each key institution for the ENDE-REDD+ strategy

Through these studies we aim to measure the real and necessary capabilities to provide optimal and sustainable services that includes social and environmental safeguards from each of the institutions involved, in order to effectively develop strategic plans that are properly coordinated with institutional activities which are complementary and have the same objectives.

b. Broaden the institutional territorial coverage

Develop the capability to offer institutional coverage at a national level, starting with a territorial prioritization, and centralizing operation in order to optimize resources. All the institutional gaps related to improper practices that promote illegal timber and land trafficking, will be corrected.

Promote the improvement of inter-institutional coordination between relevant public services and between the private sector and public institutions. Strengthen the dialog between multiple stakeholders and their management capabilities through the GOFO platforms or other consensus entities (CONAFOR, among others).

The necessary action to strengthen the establishment of a grievance and complaints mechanisms will be carried out, in order for the general population to be able to report deforestation or forest degradation actions.

Broadening the coverage makes it necessary to have technical training of personnel, as well as establishing automated information databases that allow to maintain a fluid and current communication on all the activities developed, as well as new development technologies that can be implemented, making it necessary to also create the skills and knowledge necessary for the use of these new technologies.

c. Strengthen the institutional capabilities for a transparent management of economic resources

The results of an organizational study will allow us to obtain information on the budgetary gap for the proper functioning and economic sustainability of the institutions. From here an economic sustainability strategy will be developed that ensures the resources for operational capacity and proper organizational performance, and the development of capabilities to formulate and manage proposals that will lead to access to resources that can fill the budgetary gaps.

TABLE 21: Strengthen the institutional capabilities and the governing forestry structures (national, regional, municipal and indigenous territories)

Strategic Actions	Activities	Responsible	Period							
			2012		2013		2014		2015	
			I	II	I	II	I	II	I	II
Carry out an organizational study and articulate a strategic plan for each key institution for the ENDE-REDD+ strategy	Organizational Studies on Level 1 authorities									
	Develop institutional strategic plans on Level 1 authorities									
Broaden the institutional territorial coverage	Strengthen the dialog between multiple stakeholders and their management capabilities through the GOFO platforms or other consensus entities (CONAFOR, among others)									
	Establish an institutional performance monitoring system.									
	Broaden the institutional coverage of technical equipment, means and facilities.									
	Establish a grievance and complaints mechanism for deforestationa and forest degradation.									
Strengthen the institutional capabilities to manage economic resources	Training in management and institutional sustainability development strategy formulation.									

2. Adjustment and alignment of the political and regulatory framework

The aim here is to increase the impact capacity that government authorities have, from the logic from which they act to the dimensions of responsibilities they hope to carry out. This entails reviewing policies, resizing the scope in accordance with insitutional capabilities, and strategically complement them, allowing institutions to act in different ways, but with a common direction. From here we hope to strengthen the monitoring and control capabilities for policy and program compliance of each institution, and include in the analysis of personnel performance, the levels of compliance and non-compliance of their results.

Have an impact on the institutional policy orientation, in how they affect the reduction of deforestation and environmental degradation, broadening their impact on agricultural and cattle raising activities. Redirect growth towards exports including improving productivity, mechanization and increasing the value of primary production that is based on cheap labor. Review and redefine rules or policies that promote in an indirect way the growth or broadening of the agricultural or cattle raising activities, whether because they are exonerated or because they are economically encouraged.

Act upon the regulatory mechanisms by simplifying their procedures and guiding their effect and direct it towards development. Change rules and regulations that in their attempt to control economic activities, they hinder their progress or implementation.

Strategic Actions

a. Strengthen the analytical capabilities of the production cabinet members particularly those of level one

Carry out workshops and seminars that include exercises that develop the skills necessary to identify key development factors or strategic activities that will have a multiplier effect on State interventions. This process will involve politicians and State personalities who have a large impact on decision making, so they will include the topics related to conservation and protection of forests in their agendas.

b. Adaptation of credit policies to encourage forest investment and to discourage agricultural activities in conservation areas.

Laws, rules and regulation adjustment proposals will be prepared, once these have been studied as well as their impact on the deforestation and forest degradation factors. New policy proposals that increase productivity and that generate social wealth will be proposed, in areas with production intensification and pressure on natural resources with an emphasis on activities that have a larger impact on deforestation and forest degradation, as is the case with extensive cattle raising.,

c. Improve the environmental forest management regulation and control systems and instruments (independent monitoring).

Studies and consultations will be carried out which will allow to identify the weaknesses in the regulation and control instruments of forest management and the necessary activities will be carried out to create institutional and human capabilities to implement the instruments developed.

TABLE 22: Adjustment and Alignment of the regulatory framework

Strategic Actions	Activities	Responsible	Period							
			2012		2013		2014		2015	
			I	II	I	II	I	II	I	II
Strengthen the analytical capabilities of the production cabinet members particularly those of level one	Workshops and seminars to develop tactical and strategic capabilities at level 1									
	Fora and discussion areas for the design, enrichment and inclusion of environmental topics in the politicians agenda.									
Adaptation of credit policies to encourage forest investment and to discourage agricultural activities in conservation areas.	Carry out studies and prepare proposals for change and improvement of credit laws, rules and regulations.									
	Workshops on validation and consensus of the proposed changes and improvements of credit laws, rules and regulations.									
Improve the environmental forest management regulation and control systems and instruments (independent monitoring).	Study to identify weaknesses and strengthen the forest management control and regulation tools									

3. Restructuring of the agricultural, livestock and forest production systems with a focus on adapting to climate change

This guideline is focused on the conservation and reahbilitation of agro-ecosystems, through the following models i) Forest Management Systems. The sub-systems include natural pine forest management, broad-leaf forest management and the management of the natural regeneration of both types of forests, ii) Forest grazing systems; sustainable extensive cattle raising, improved cattle raising, natural broad-leaf forest grazing and natural pine forest grazing, iii) Agro-forest Systems: improved sustainable agriculture, improved traditional agriculture, eco-forest coffee and cocoa and iv) Forest Plantation Systems: pine plantations, broad-leaf-energy plantations, broad-leaf timber and those of multiple uses.

Promotion and research activities of technologies that, though agriculture and cattle raising, will improve the productivity of the soil, increase the diversified production of biomass, which will be incorporated into the diet of production animals, increasing their productivity and reducing the costs of production, and therefore having a positive effect on the areas profitability. Redirect the focus of how production systems are managed by strengthening the sustainable business model with a focus on the environment.

This restructuring process will be accompanied by an induction and awareness process in order to influence and generate, in a systematic way, changes in productive habits and customs that have greatly damaged the production capacity of the soil and the natural regeneration systems, as is the case with cattle raising and migratory agriculture. Every available means of communication will be used, combining messages on the virtues of technology promoted along with the direct and indirect benefits they provide. This activity will be supported by an increase in the regulation and control

mechanisms to directly influence the sectors that promote migratory agriculture, this way affecting their ability to expand, so that production intensification becomes their only option.

During this process the alignment of existing and new incentive programs will be promoted, for the most affected territories and for the sectors that lag behind the poverty sector, which are sent to invade forested areas as an expansion mechanism. This will allow to create effective productive options that will respond to the needs of these vulnerable sectors, while trying to reduce the social pressure generated by the strict and rigorous implementation of resource use rules and regulations, especially in sensitive areas that are of interest to the entire nation, redirecting the expansion of the agricultural frontier, intensifying cattle raising, and ensuring the conservation and recovery of forest areas.

Strategic Actions

a. Agricultural and forest technology research, innovation, rescue and development

Form strategic alliances with reserarch centers and universities so they will focus on creating high productive value and low cost technolgies. The agricultural and forest technology advances will be reintroduced, the rescue of good practices will be promoted, especially those that increase soil coverage, improve its physical and biological structure, and those which use the tree in their practices. Support the improvement of the means of technology research and development, the development of research capabilities at a local level, as well as support to implementation methods. Support initiatives that promote the generation of co-benefits of the forest that include forest biodiversity; carry out studies that benefit the management of natural regeneration for the recovery of forests affected by hurricanes; emphasize the creation of technologies the intensify cattle raising and at the same time improve soil use in this activity.

b. Knowledge management

Design a strategy that allows an effective adoption of technologies mainly in the cattle raising sector; introduce a new business focus in agricultural, livestock and forest activities. Promote the development of production capabilities of the means of production (soil) and the business variables that affect profitability and cost reduction. Make use of training styles and methods that combine theory and practice, and that clearly identify the economic value that technology represents for those who use it. Carry out and effective rapprochement of the research and development sectors with the agricultural production sector.

Support the establishment of regional forestry extension programs with a promotion focus in ENDE-REDD+ priority areas; develop extension plans and establish technical teams in ENDE-REDD+ priority areas. Support the establishment of regional and national programs to prevent and fight forest fires, forest plagues and climate risks.

c. Dialog and Environmental Awareness

Carry out awareness campaigns; create awareness; discussion fora, workshops and seminars, and mass media campaigns; carry out systematization studies of successful practices in forest conservation and protection; promote the generation of forest by-products; and present all the possible profitable and sustainable business alternatives that can be derived from the forest, nature and its scenic beauty.

Develop specific programs for REDD+ priority areas (documents, guides, meetings, workshops). Awareness and training campaigns for relevant stakeholders, including the agricultural and livestock sector.

The dialog and awareness programs should prioritize themes with an emphasis on cattle raising and agricultural activities which allow the restructuring and improvement of soil use in these activities to be effective.

d. Promote territorial reorganization

Begin by generating OT techniques proposals, considering especially the areas with high REDD+ potential, developing a technical proposal validation process with key stakeholders at a national and territorial level. Support the implementation of laws and policies that complement and promote the reorganization of soil use and its effective exploitation balanced with the environment; coordinate with authorities that promote and implement activities to reduces environmental risks; and support the development of inter-institutional plans to implement activities that promote territorial reorganization.

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TABLE 23: Restructuring of the agricultural, livestock and forest production systems with a focus on adapting to climate change

Strategic Actions	Activities	Responsible	Period							
			2012		2013		2014		2015	
			I	II	I	II	I	II	I	II
Agricultural and forest technology research, innovation, and development	Modeling of physical and chemical soil variables in productive areas to influence the reduction of the agricultural frontier.									
	Development, validations and adaptation of natural resource management methodologies and technologies.									
Knowledge management	Development of specific programs for ENDE-REDD+ priority areas (documents, guides, meetings, workshops).									
	Development of forestry extension plans (brochures, manuals, pamphlets with a gender, multiethnic and multilingual focus).									
	Feasibility studies to establish a community extension system for ENDE-REDD+ areas (pilot areas).									
	Development of a productive model for tropical wetlands, and training methods for its use and technological management									
	Carry out experience exchanges and establish demostration plots.									
Dialog and Environmental Awareness	Awareness and training campaigns for relevant stakeholders, including the agricultural and livestock sector on preventing and fighting forest fires, forest plagues and climate risks.									

Strategic Actions	Activities	Responsible	Period							
			2012		2013		2014		2015	
	Awareness fora, discussion dialogs, workshops and mass media campaigns; on the use of natural resources and environmental conservation									
Promote territorial reorganization	Generate OT technical proposals considering especially the areas with high and very high ENDE-REDD+ potential (studies, consultations)									
	Validation of technical proposals by key stakeholders at the territorial and national levels (workshops, meetings)									

4. Development of incentives that will lead to the protection, conservation and changes of soil usage

These guidelines will be complement by the technology transfer guidelines, and will aim to ensure the economic resources for the implementation of the technologies proposed in guideline 2; establish alliances and conventions with financing authorities and with execution programs that count on resources for this purpose; support design and improvement processes of incentive delivery mechanisms, ensuring that these arrive in an effective manner without incurring additional costs that may affect their implementation.

Ensure the incentives are properly used by the beneficiaries, by developing control and monitoring mechanisms to accompany their implementation; support all activities that bring the financial and productive sectors closer, verifying that this rapprochement is beneficial to both parties.

Promote activities that promote the demand for new agricultural products or that redirect rural economic activities to new ways of generating income, such as rural and agro-ecological tourism or tourism in general, for both national and international visitors. Establish alliances with agencies that promote these activities and develop mechanisms so their activities can be more effective. Support the review and improvement of the policies, rules and regulations of this sector that will help it be more dynamic and develop higher demand of tourist services, as well as bring them closer to the new supply generated in the different rural sectors of the country.

Support the activities designed to ensure incentives or payments for environmental services, develop organizational mechanisms, procedures and structures that allow effective access to these resources and that these resources reach the interested sectors.

Support the development of a national level outline of direct incentives for forest protection and conservation measures that promote ENDE-REDD+, its measures, and activities, to ensure the establishment of payments for environmental services in the country and facility access to these payments to priority sectors.

Strategic Actions

a. Develop financial incentive mechanisms

Promote dialogs with the financial sector, government authorities and micro-finance sector to design and validate mechanisms that ensure the access to incentives to priority productive sectors like cattle raising, as well as in established forest areas, where studies that allow the implementation of pay per environmental services will be carried out. Restructuring of the production systems with a stronger emphasis on the cattle raising systems and access to resources for these objectives.

b. Broadening the financial institutions structures

Support the improvement of financial services, in access and cost to the ENDE-REDD+ priority sectors; create the necessary structures to ensure financial incentives in ENDE-REDD+ interest zones and that will have a larger impact on cattle raising, agricultural and forest production; support the creation of structures that allow access to financial resources directed towards payments for environmental services and make sure these reach the interested sectors.

c. Implement the forest environmental voucher

This voucher system will aim to reduce deforestation and forest degradation and to generate environmental goods and services, with an emphasis on indigenous peoples and areas with high levels of poverty. Some of the eligible activities include:

- Emissions reduction due to deforestation
- Emissions reduction due to degradation
- Forest carbon stock conservation
- Capture and improvement of carbon stock through forest sustainable management.
- Increase carbon stocks
- Biodiversity Conservation
- Water Conservation
- Scenic beauty and historical site conservation.

This voucher system is composed of income or vegetative or non vegetative materials, technical assistance and training; monitoring and control expenses. The labor for voucher implementation, will be supplemented by the participating family. The voucher can be applied in two ways: an individual voucher and a communitarian voucher aimed at indigenous populations. In the annexes we present the implementation of the forest environmental voucher in more detail.

TABLE 24: Development of incentives that will lead to the protection, conservation and changes of the soil usage

Strategic Actions	Activities	Responsible	Period							
			2012		2013		2014		2015	
			I	II	I	II	I	II	I	II
Develop financial incentive mechanisms	Experience systematization study at a national and regional level on forest incentives and an outline proposal outline adapted to the conditions in Nicaragua.									
	Validation and adjustment of the results of the study by institutional representatives and relevant stakeholders (incl. dissemination material production).									
	Design of economic and environmental incentive mechanisms for forests									
Broadening the financial institutions structures	Build a structure to recognize ecosystem services.									
Implement the forest environmental voucher	Deliver vouchers for deforestation and forest degradation reduction									

5. Strengthen the commercial framework and value chains of the farming and forest products

This guideline aims to complement activities geared towards restructuring the productive systems. Support increasing income through access to better paid markets, allowing for the creation of capital, development of more sustainable ways of life, including agricultural, cattle raising and forestry activities. Allow the development of products that have their origin in the forest, from their identification, access and development of markets for those products.

Create business models and plans that allow for vertical movement in the agricultural, cattle raising and forest product chains. Promote the opening of local consumption markets and their diversification.

Promote the development of local structures that allow for improved access to better paid markets, that define the economic interests of the least protected productive sectors and allow for a better integration of the productive families into the commercial dynamic.

Promote access and development of products and markets of perennial crops such as cocoa, coffee, fruit, etc. Develop business models and plans in order to industrialize agricultural, livestock and forest products.

Strategic Actions

a. Market research, access and development

With this activity we hope to effectively influence the productive diversification and restructuring processes, generating new demand for agricultural products that use a limited space for their production and have a high nutritional value. We will take advantage of the programs of this nature already carried out by the government, as well as any other alternatives that will generate new supply of agricultural products, create new markets for these new products, establish alliances with interested sectors, such as tourism, education and private businesses, to obtain their support and favor for this proposal. These activities should include, fairs, campaigns, training to facilities to improve supply and introduce new nutritional alternatives.

Studies will be carried out to identify potential markets and to identify new agricultural, livestock and forest products. Successful experiences of inserting agricultural and forest products to better paid markets will be reintroduced, and the development of new products, that don't damage the environment during production and that can protect it will also be promoted.

Create and strengthen organizational structures with a business focus

Support, with counseling, training and carrying out marketing studies and strategies, the management processes, market identification, new product development, insertion strategies definition, growth or expansion of national and international markets of the organizational structures formed by agricultural, livestock or forest sectors.

b. Small scale development of the agro-industrial sector

This activity anticipates advancing up the cattle raising and forestry chain, create the basis for industrialization, provide economic support to the promoted organizational structures which will allow them to strengthen and continue moving forward.

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TABLE 25: Strengthen the commercial framework and value chains of the farming and forest products

Strategic Actions	Activities	Responsible	Period							
			2012		2013		2014		2015	
			I	II	I	II	I	II	I	II
Market research, access and development	Studies for the development of products and markets for non-traditional agricultural and forest products									
	Reintroduce successful experiences in business negotiations of non-traditional agricultural and forest products									
	Training and skill development strategic for the insertion of new agricultural and forest products to conventional markets									
Create and strengthen organizational structures with a business focus	Organizational, negotiation and successful business proposal modeling training workshops and seminars									
	Develop capabilities to create marketing strategies, as well as design and implement business proposals.									

	Support the strengthening and creation of communal organizational structures to commercialize and industrialize agricultural and forest products.									
Small scale development of the agro-industrial sector	Support inclusive, profitable business design and modeling, which wil allow access to secure financing sources									
	Create agricultural and forest product processing capabilities at a small scale									
	Support the development of capabilities to compete in a globalized markets and support the development of a business vision									

6. Improve the territorial governance and support the legislation processes of indigenous territories

This guideline focuses on attacking the problems related to territorial governance, especially in the autonomous regions of the Caribbean, RAAN and RAAS. Reverse the migration to forested land, reconvert the production systems by focusing their activities on increasing their productive capacity, developing profitable and sustainable economic activities that generate wealth and reverse the decapitalization of natural resources in the zone.

Promote the participation of the indigenous peoples in decision making, develop business and leadership capabilities that allow to strengthen the use and management of natural resources, specially the forest.

Support the development of new economic alternatives, promote activities like ecotourism, natural scientific tourism, and the industrialization of agricultural products. Support territorial restructuring allowing for a better use of resources, fight poverty by developing productivity, restructuring the productive systems and discourage in different ways the interest and need to search for new land with fertile soil and the space to establish agricultural and cattle raising activities.

Strategic Actions

a. Institutional strengthening of the forest governance structures (CCF-A)

Strengthen forest governance spaces in the RAAN Dividing the governance structures (CCF-A) by municipalities and territories will facilitate the discussion and consensus between forest sector stakeholders, as well as their communities. Coordinate activities to improve territorial coverage by the entities that govern them (INAFOR, MARENA, MAGFOR), and those that control and prosecute forest crimes and illegal activities (police, army, PGR, Attorney General); consolidate the forum where forestry regulations are generated and promote activities that influence regulation and control agricultural and cattle raising activities, reorienting the focus of the intervention towards the main problems of deforestation and forest degradation.

b. Detain the expansion of the agricultural frontier

Develop production restructuring proposals with a stronger emphasis on extensive cattle raising, adapting their practices to the soil dynamics in humid tropical climates, focused on improving the productive capacity of the soil, improving its fertility and protecting it from the loss and impact caused by different natural and human factors. Promote the establishment of agro-ecological systems and practices that are in balance with the environment. Identify and develop different environmental services derived from the forest ecosystems. Promote the recovery and management of forests in and outside of indigenous territories . Promote the market access of forest products and the development of economic activities that use resources other than wood (tourism, fruit, bark, sap, biomass, etc). Institutionalize the forest regulation plan in the RAAN. Regulate and plan new human settlements.

c. Strengthen Territorial Governments (GTI)

Strengthen the official, single and unitary participation of communal and territorial governments in policy relations and decision making. Strengthen the principles that guide the government and the administration of the indigenous territories such as democracy, autonomy, multi-ethnicity, multiculturalism, self determination, solidarity, equality, respect the memory of our ancestors, no religious discrimination, territorial development, unity and constant communication between the communities. Strengthen the integration of indigenous communities based on their territories and the historical alliances between them .

d. Strengthen the land ownership and reorganization systems in conflict areas.

Strengthen the delimitation and titling process in coordination with CONADETI, among other territorial stakeholders. This activity is related to the current titling and reorganization process developed in the country, mainly in the Autonomous Regions of the Caribbean.

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TABLE 26: Improve the territorial governance and support the legislation processes of indigenous territories

Strategic Actions	Activities	Responsible	Period							
			2012		2013		2014		2015	
			I	II	I	II	I	II	I	II
Institutional strengthening of the forest governance structures (CCF-A)	Develop per territory a base-line study, regulations, consultations and validations									
	Legal and institutional feasibility study for the implementation of ENDE REDD									
	Create the organizational technical authorities to implement ENDE REDD									
	Create rules, procedures, mechanisms and operations.									
	Strengthen the executive technical authorities as well as their equipment/procurement.									
	Skills workshops for the CCF-A members and the authorities involved									

Strategic Actions	Activities	Responsible	Period							
			2012		2013		2014		2015	
	Train territorial and communal leaders, and later create carbon monitoring commissions in the territories.									
Detain the expansion of the agricultural frontier	Diagnose and create a base line to develop a forest regulation plan for the Region.									
	Review and adopt Nicaragua's agricultural productive policies aimed at the Autonomous Regions.									
	Train producers and indigenous territories in sustainable natural resource management and in agricultural and livestock production systems									
Strengthen Territorial Governments (GTI)	Strengthen regional institutions, such as regional government, office of the Mayor and indigenous territorial governments (GTI), in management and organizational skills.									
	Implement mediation and support strategies between the indigenous territories and the settlers, with previous, free and informed consent.									
	Construct a base line of the primary needs of the GTI.									
	Strengthen the territorial structures (leadership, conflict resolution, community management, among others)									
Strengthen the land ownership and reorganization systems in conflict areas.	Management and study for the reorganization of indigenous territories									
	Strengthen the delimitation and titling process in coordination with CONADETI, among others.									

Risk Analysis

In the REDD+ concept, the emphasis on the sale of carbon stocks in the market comes with a warning of possible negative consequences for the poorest populations because this procedure becomes a speculative process that renders the rural forest communities even more (economically) vulnerable, due to the lack of management culture and insufficient local, administrative, technical and development capabilities. Furthermore it doesn't guarantee the conservation of the resource, given that the contract system presupposes indebtedness and carries the risk of possible land confiscation due to non-compliance. It is believed that rural and indigenous communities would be on the losing end of a REDD mechanism that involves a commitment to not use/touch the forest, because this would mean pawning their forests and this is a condition they are not capable of complying with. The result would be the loss of their forests to large transnational companies with power an knowledge of the international trade model.

Some of the stakeholders involved consider the current REDD mechanism to be a reductionist and monothematic proposal, because it is considered a trade mechanism and linked solely to carbon stock, and therefore does notes not take into account the multi-functionality of the forest nor an understanding of the indigenous territorial rights.

To minimize the identified and unidentified risks, workshops in the SESA framework will be carried out, to be incorporated in the social and forest management framework.

Starting with the implementation of the strategic guidelines, their possible risks will be analyzed from the different spheres of intervention, such as political and socio-economic, and determine from there the risks involved in its implementation. See the following table.

TABLE 27: Risk Analysis for the ENDE-REDD+ Strategy Implementation for Nicaragua

Strategic Guideline	Root cause it will tackle	Level of political risk	Level of economic risk	Level of social risk	Implementation feasibility
Strengthen the institutional capabilities and the governing forestry structures (national, regional, municipal and indigenous territories)	Institutional weakness	Medium-High	Medium	Low	High
Adjustment and Alignment of the regulatory framework	Weakness of the regulatory framework	Medium-High	Medium-High	Low	Low
Restructuring of the agricultural, livestock and forestry production systems	Technological weakness	Medium-High	High	High	High
Development of incentives that will lead to the protection, conservation and changes of the soil usage	Financial weakness	Medium	Medium	Low	Medium
Strengthen the commercial framework and value chains of the farming and forest products	Socio-economic weakness	Medium-High	High	Low	Medium
Improve territorial governance and support the regulation processes in indigenous territories	Territorial Institutional weakness and social environmental participation	Medium	High	Low	High

The exercise supposes a political and economic scenario in which the risk is medium to high, due to the complexity of obtaining institutional or sectoral consensus, and the resource investment from all levels. This is considered in the strategy and during the readiness phase, where an agreement must be reached in order for this risks to be minimized. For the implementation it is important to consider that guidelines 1, 2 and 6 will be presented as the main axis for the success of the strategy because they focus on tackling the root causes, mainly from the vision, capacity and perception of the members that are within the institutions, and who in some way may hinder the proper development of these institutions. That is why the strategy integrates a strong development of this capital as well as the awareness and a better understanding of the surroundings and interpersonal relationships.

TABLE 28: Activity, Timeline and Budget Summary for component 2b

Strategic Actions	Activities	Estimated Cost (in thousands of US$)				
		2012	2013	2014	2015	Total
Carry out an organizational study and articulate a strategic plan for each key institution for the ENDE-REDD+ strategy	Organizational Studies on Level 1 authorities	$54				**$54**
	Develop institutional strategic plans on Level 1 authorities	$45				**$45**
Broaden the institutional territorial coverage	Strengthen the dialog between multiple stakeholders and their management capabilities through the GOFO platforms or other consensus entities (CONAFOR, among others).	$60				**$60**
	Establish an institutional performance monitoring system.	$30	$30	$30	$30	**$120**
	Broaden the institutional coverage of technical equipment, means and facilities.	$250	$110	$110	$110	**$580**
	Establish a grievance and complaints mechanism for deforestationa and forest degradation.		$200			**$200**
Strengthen the institutional capabilities to manage economic resources	Training in management and institutional sustainability development strategy formulation.			$10		**$10**
		$439	**$340**	**$150**	**$140**	**$1,069**
Strengthen the analytical capabilities of the production cabinet members particularly those of level one	Workshops and seminars to develop tactical and strategic capabilities at level 1		$5	$5		**$10**
	Fora and discussion areas for the design, enrichment and inclusion of environmental topics in the politicians agenda.	$5	$5	$5		**$15**
Adaptation of credit policies to encourage forest investment and to discourage agricultural activities in conservation areas.	Carry out studies and prepare proposals for change and improvement of credit laws, rules and regulations.	$8				**$8**
	Workshops on validation and consensus of the proposed changes and improvements of credit laws, rules and regulations.		$10	$10	$5	**$25**
Improve the environmental forest management regulation and control systems and instruments (independent monitoring).	Study to identify weaknesses and strengthen the forest management control and regulation tools	$15				**$15**

		$28	**$20**	**$20**	**$5**	**$73**
Agricultural and forest technology research, innovation, and development	Modeling of physical and chemical soil variables in productive areas to influence the reduction of the agricultural frontier.	$100	$100			**$200**
	Development, validations and adaptation of natural resource management methodologies and technologies.		$60	$60		**$120**
Knowledge management	Development of specific programs for ENDE-REDD+ priority areas (documents, guides, meetings, workshops).	$40				**$40**
	Development of forestry extension plans (brochures, manuals, pamphlets with a gender, multiethnic and multilingual focus).	$5	$5		$5	**$15**
	Feasibility studies to establish a community extension system for ENDE-REDD+ areas (pilot areas).	$100	$100	$100	$50	**$350**
	Development of a productive model for tropical wetlands, and training methods for its use and technological management	$10				**$10**
	Carry out experience exchanges and establish demonstration plots.		$5	$5	$5	**$15**
Dialog and Environmental Awareness	Awareness and training campaigns for relevant stakeholders, including the agricultural and livestock sector on preventing and fighting forest fires, forest plagues and climate risks.	$40	$40	$40	$40	**$160**
	Awareness fora, discussion dialogs, workshops and mass media campaigns; on the use of natural resources and environmental conservation	$10	$10	$10		**$30**
Promote territorial reorganization	Generate OT technical proposals considering especially the areas with high and very high ENDE-REDD+ potential (studies, consultations)	$100	$100	$100		**$300**
	Validation of technical proposals by key stakeholders at the territorial and national levels (workshops, meetings)	$50	$50	$50		**$150**

		$455	**$470**	**$365**	**$100**	**$1,390**
Develop financial incentive mechanisms	Experience systematization study at a national and regional level on payment for environmental services and forest incentives, and an outline proposal adapted to the conditions in Nicaragua.		$25			**$25**
	Validation and adjustment of the results of the study by institutional representatives and relevant stakeholders (incl. dissemination material production).		$30			**$30**
	Design of economic and environmental incentive mechanisms for forests	$16				**$16**
Broadening the financial institutions structures	Build a structure to recognize ecosystem services.	$50	$50			**$100**
Implement the forest environmental voucher	Deliver vouchers for deforestation and forest degradation reduction			$500	$500	**$1,000**
		$66	**$105**	**$500**	**$500**	**$1,171**
Market research, access and development	Studies for the development of products and markets for non-traditional agricultural and forest products	$6	$6	$6	$6	**$24**
	Reintroduce successful experiences in business negotiations of non-traditional agricultural and forest products	$4	$4			**$8**
	Training and skill development strategic for the insertion of new agricultural and forest products to conventional markets	$10	$10	$5		**$25**
Create and strengthen organizational structures with a business focus	Organizational, negotiation and successful business proposal modeling training workshops and seminars	$5	$5	$5		**$15**
	Develop capabilities to create marketing strategies, as well as design and implement business proposals.		$6	$6	$6	**$18**
	Support the strengthening and creation of communal organizational structures to commercialize and industrialize agricultural and forest products.	$18	$18			**$36**
Small scale development of the agro-industrial sector	Support inclusive, profitable business design and modeling, which will allow access to secure financing sources	$5	$10			**$15**
	Create agricultural and forest product processing capabilities at a small scale		$10	$5		**$15**
	Support the development of capabilities to compete in a globalized markets and support the development of a business vision		$15	$10	$10	**$35**
		$48	**$84**	**$37**	**$22**	**$191**

Institutional strengthening of the forest governance structures (CCF-A)	Develop per territory a base-line study, regulations, consultations and validations	$24	$30			**$54**
	Legal and institutional feasibility study for the implementation of ENDE REDD	$10				**$10**
	Create the organizational technical authorities to implement ENDE REDD	$4				**$4**
	Create rules, procedures, mechanisms and operations.	$4	$4			**$8**
	Strengthen the executive technical authorities as well as their equipment/procurement.	$20	$30			**$50**
	Skills workshops for the CCF-A members and the authorities involved		$10	$10		**$20**
	Train territorial and communal leaders, and later create carbon monitoring commissions in the territories.			$15	$10	**$25**
Detain the expansion of the agricultural frontier	Diagnose and create a base line to develop a forest regulation plan for the Region.	$6				**$6**
	Review and adopt Nicaragua's agricultural productive policies aimed at the Autonomous Regions.	$4	$4			**$8**

2c. REDD-plus Implementation Framework

Standard 2c the R-PP text needs to meet for this component:
REDD-plus Implementation framework:

Describes activities (and optionally provides ToR in an annex) and a work plan to further elaborate institutional arrangements and issues relevant to REDD-plus in the country setting. Identifies key issues involved in REDD-plus implementation, and explores potential arrangements to address them; offers a work plan that seems likely to allow their full assessment and adequate incorporation into the eventual Readiness Package. Key issues are likely to include: assessing land ownership and carbon rights for potential REDD-plus strategy activities and lands; addressing key governance concerns related to REDD-plus; and institutional arrangements needed to engage in and track REDD-plus activities and transactions.

Please provide the following information:

- **Summarize the relevant information and ideas on your REDD-plus implementation framework in the space below (in three to six pages);**
- **Fill in the budget and funding request in Table 2c (the detailed budget and funding data go in Component 5);**
- **If necessary, attach the work program or draft input to ToR as Annex 2c.**

Add your description of key REDD-plus implementation issues and questions here:

REDD-plus Implementation Framework

1. Process Description

In this component we describe in a general way the carbon rights, the benefits and co-benefits of the forest, land rights and institutional arrangements that will make it possible to distribute the benefits from reducing them.

The mechanisms that ensure the implementation of the strategic guidelines defined in component 2b will be defined, as well as the governance arrangements, that are credible and transparent, and the institutional, economic and legal arrangements that will be necessary for the country to be able to implement the provisional ENDE-REDD+ strategy options discussed in section 2b.

The ENDE-REDD+ strategy options are based on the development of its activities in three phases: i) readiness phase, ii) Consensus, dialog, proposal development and interface phase called R-Package.; and iii) Investment phase

During the implementation of this strategy we aim to have an impact on the institutional, socio-cultural, economic, productive and environmental issues in a direct way by integrating these issues simultaneously and in a complementary way so the strategy can achieve its objectives and carry out the substantial changes necessary to effectively have an impact on the reduction of deforestation and forest degradation.

In **Phase I** studies to identify, build and validate the mechanisms, structures and processes that will ensure the implementation of the ENDE-REDD+ activities, will be carried out

In **Phase II** these mechanisms, structures and processes will be reconciled with the stakeholders and participating authorities, so they can count on the necessary and sufficient support when they will be implemented. During this phase, we will make the necessary adjustments with the input generated during the consensus process and the dialog with the stakeholders.

In **Phase III**, the performance and implementation of the mechanisms that directly impact environmental services, including the reduction of emissions will be financed, and monitoring, control and follow-up of carbon stocks, benefits and co-benefits of the forest, as well as the economic recognition to forest owners, will be carried out.

2 Carbon rights, benefits and co-benefits and land ownership

Land ownership situation[60]

Currently, land ownership in Nicaragua is focused on a reconcentration of land ownership process, which has developed over the last two decades (1990's and 2000's) and has been stimulated by several processes such as: the expansion of the agricultural frontier, followed by the conversion of small plots into large pasture fields; speculation dynamics in the land market; and the sale of land owned by the beneficiaries of the agrarian reform carried out in the eighties, and by small farmers, who were forced to sell their land due to declining crop prices and/or natural disasters. The reconcentration process is closely associated with the underutilization of land and with low levels of investment in zones located in the interior of the country.

In Nicaragua, three types of land property rights can be distinguished:

1) Public land, which belongs to the State and the Municipalities (commonly-owned land);

2) Commonly-owned land belonging to the indigenous communities and ethnic groups; and

3) Private land.

Land that has not yet been transferred to a third party or that does not have an owner is considered to be property of the State. The private acquisition of land under this status is done through land concessions granted by the State.

To acquire land in Nicaragua the right of possession exists, whereas after ten years of peaceful occupation of the plot of land it is possible to grant the eventual recognition of all the property rights registered in the property registry. But, the legal instruments used for this purpose -sale by judicial sentence and supplementary titles- are subject to abuse and have been used to accumulate land near the agricultural frontier or on indigenous land that has not been delimited. In many cases, the land titles have been issued by local judges on land with pre-existing conflicting rights of ownership.

According to the INF 2007-2008 results[61], land ownership in Nicaragua can be summarized in four categories or types of possession: 1) private, 2) indigenous communities, 3) State, 4) Municipal y 5) undetermined or without documentation. According to this classification, 55% of owners belong to the private possession category, 25% to indigenous communities, 13% is land owned by the State, 1% is owned by municipalities and 2% has undetermined ownership. It is important to point out that indigenous communities is the category with the largest amount of forests, because it is estimated that 49% of the forests of the country can be found in indigenous territories (INAFOR 2008b).

[60] Höllinger F. TCIE/FAO. Note on access to land policies. FAO/World Bank Cooperation Program. 08/015 CP-NIC. 27 p.

[61] 995 people were interviewed at a national level, who occupied land where national forest inventory samples were taken.

According to other sources, the rural population lacking property is estimated to be between 21% (Baumeister, 2001) and 38% (Reardon, 2001). The farmers with less than 5 blocks represent almost ¾ of rural families, but poses only 5% of the land. On the other hand, farmers with over 50 blocks represent only 10% of all the producers, but poses 75% of the land dedicated to agriculture (Reardon, 2001). A significant percentage of small producers have temporary access to land, i.e. short-term plot rentals. The day laborers and smallholders constitute the poorest segments of the rural population. These families tend to be characterized by lack of goods, labor instability and low level of schooling (Davis, Stampini, 2002).

It is important to mention that women face singular disadvantages in their right to have access to land and to obtain legal recognition of their rights to own land. Despite the remarkable advances in the legal framework that govern women's right to land ownership, the implementation of the legal precepts lags behind in part because of cultural resistance, but also due to socio-economic factors that limit women's access to use and ownership of land.

Even though the equal gender principle is consecrated in land access, only 8% of the beneficiaries of the agrarian reform carried out in the eighties were women. Nevertheless, women have recently begun to participate in a more active way in the land titling programs since the mid nineties.

In regards to the indigenous communities land ownership rights, the Government recognizes the rights of the communities because they derive from ancestral rights existing prior to colonization. The recognition to the rights of communal property of the indigenous peoples and ethnic minorities is expressed in the Nicaraguan Constitution: "The State shall recognize the existence of the indigenous peoples, who shall enjoy the rights, duties and guarantees set forth in the Constitution, in particular those relating to maintaining and developing their identity and culture, having their own forms of social organization and managing their local affairs, as well as maintaining the communal forms of land ownership and the enjoyment, use and possession of them, all in accordance with the law"[62] (Article 5. Constitution of Nicaragua).

The Communal Property Regime of the Indigenous Peoples and Ethnic Communities of the Autonomous Regions of the Atlantic Coast of Nicaragua and of the Bocay, Coco, Indio and Maíz Rivers (law Nº 445) approved by the National Assembly in 2002 constitute a legal framework for the delimitation and titling of communal land. Nevertheless its application has been slow and characterized by overlapping of claims by the indigenous communities and non-indigenous people (including beneficiaries of the agrarian reform), delimitation problems, as well as conflicts between economic interests, cultural values and biodiversity.

To reverse the problems and conflicts of land ownership and the inequality in land possession, the Government is currently giving priority to land conflict resolution throughout the country. Some of the progress made is worth mentioning:

- Registering over 65,000 rural and urban land titles in the Pacific, Central and Northern Region of the country. Most of the beneficiaries are women, with the land title in their name as a way to protect families and reduce the gender inequality prevalent in the country.
- Titling of Indigenous Communities: 17 registered Territories, inhabited by 214indigenous and afro-descendant communities. The titled land extends over 36.207.64 ha,which is equivalent to 30.1% of the country's territory, benefiting approximately 103,790 people..

[62] Article 5. Constitution of Nicaragua. http://www.asamblea.gob.ni/opciones/constituciones/ConstitucionPolitica.pdf

- In 2010-2011 the Government approved funds for the National Budget for the National Commission on Territorial Delimitation and Titling (CONADETI)[63]. This authority will be in charge of proper titling of land, ownership conflict resolution, updating the regional land registry and the necessary reorganization in indigenous territories and the Autonomous Regions of the North and South Atlantic (RAAN y RAAS).

Figure 12. Territories Claimed by Indigenous Peoples

In Nicaragua most of the forest areas are on indigenous community property, the second area where they are mostly found is in associated and individual private reserve areas, but the majority are located in the Atlantic Zone and belong to indigenous peoples.

An important matter that is still pending with part of these territories refers to their**territorial reorganization process**. These territories were indefinitely occupied over a large number of years by settlers, who in the last decades have squatted in these territories and others claimed by the indigenous peoples (figure 12).

Nicaragua does not have a specific law that governs carbon rights, but it has laws that govern the rights to forests and their use and exploitation. Through the ENDE-REDD+ strategy we aim to establish the mechanisms that will ensure the resources and the benefits derived from carbon management at different levels. In section 2.b of this RPP we propose adjusting the legal framework that will make it possible to channel the resources obtained from Carbon stocks.

In developing the strategy one of the causes of deforestation identified was the invasion of indigenous land, despite the fact that these property rights are protected by law under law 445, "the Communal Property Regime of the Indigenous Peoples and Ethnic Communities of the Autonomous Regions of the Atlantic Coast of Nicaragua and of the Bocay, Coco, Indio and Maíz Rivers". With the ENDE-REDD+ strategy , the reorganization process will be supported through a feasibility study that will a permit to begin strategic and viable activities that will provide a definite solution to the conflict. (this activity is included in section 2.b, guideline 6).

3.-ENDE-REDD+ implementation mechanism

Based on the institutional arrangements defined in component 1a, the authority with the mandate for planning, implementation and monitoring of ENDE-REDD+ activities is MARENA through the Climate Change Directorate (DCC), coordinating strategic activities of Level 1, planning in Level 2 and implementation in Level 3.

In order to function effectively, an agreement with FONADEFO (the National Fund for Forest Development) will be carried out to establish a specialized unit for financial management of the funds allocated to forest development and that includes rules for the establishment of agreements with

[63] The creation of the National Commission on Territorial Delimitation and Titling (CONADETI) is derived from Law 445 on the Communal Property Regime of the Indigenous Peoples and Ethnic Communities of the Autonomous Regions of the Atlantic Coast of Nicaragua and of the Bocay, Coco, Indio and Maíz Rivers, and was enacted in January, 2003. Since its inception, it began the process of delimiting indigenous territories, but between 2003 to 2008 the performance has been very slow and progress have been very limited. / CONADETI is formed by 33 members, including indigenous territorial representatives, mayors, State institutions that work on land issues and the presidents of the two Regional Councils who alternate, by agreement, the Presidency of CONADETI every two years.

government authorities on projects and programs aimed at meeting these objectives. This entity will be in charge of managing the resources from the ENDE-REDD+ and will use them to implement all the necessary activities that will ensure compliance with the plans and commitments established as well as guarantee transparency, efficiency and effectiveness in the use of this resource.

Through this mechanism it will be possible to implement the activities and bypass the bureaucratic government financial process and simplify them through a defined framework, unique to ENDE-REDD+ activities.

The rules and regulations necessary will be developed for the proper functioning of the ENDE-REDD+ structures as well as for the management of resources.

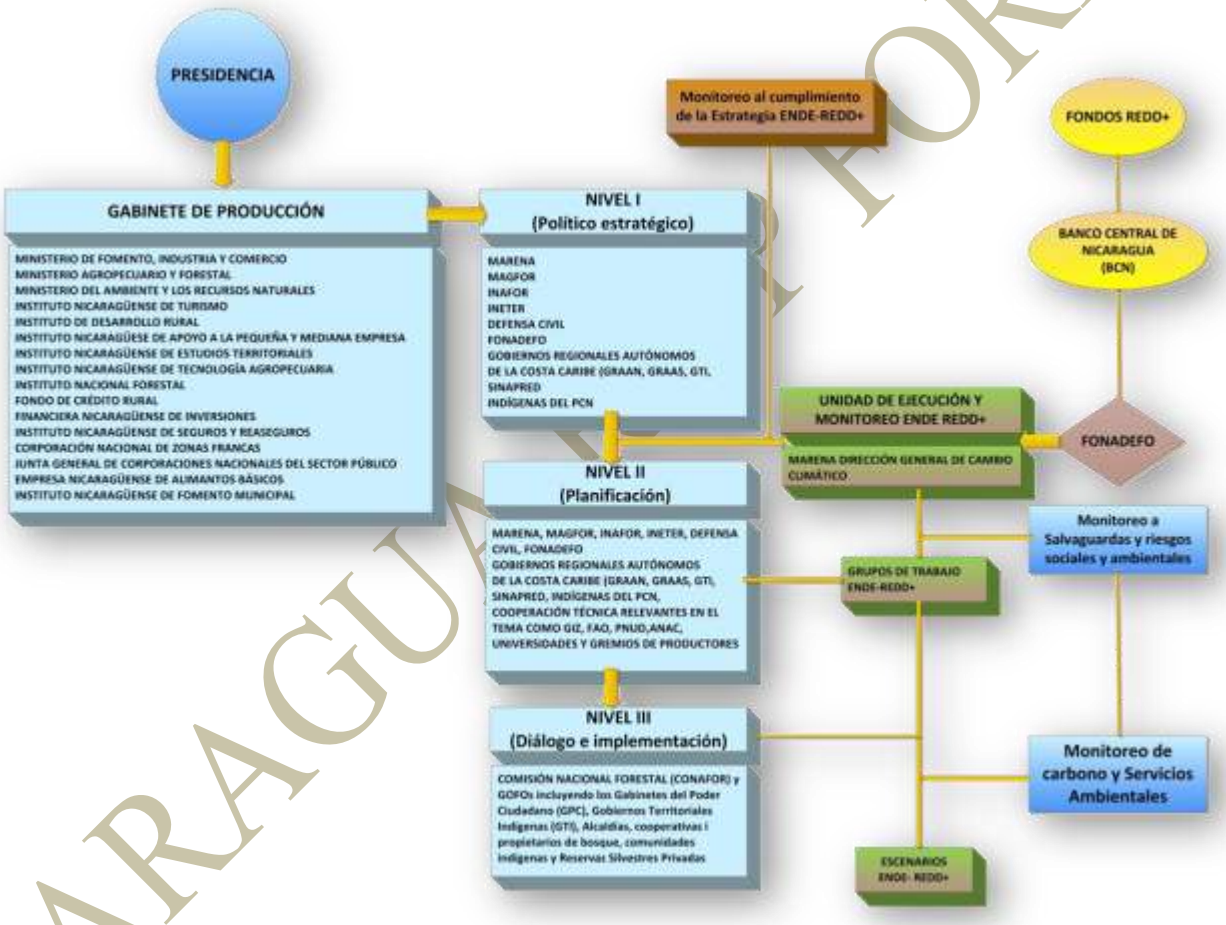


Figure 13. Anticipated guidelines for the implementation of the ENDE-REDD+ strategy

The political, technical, administrative and financial proposals related to the ENDE-REDD+ process will be developed through consensus, from the GTRE, based on how they are defined in component 1a. Promote the strengthening of the territorial governance structures, create the technical entities for the implementation of ENDE-REDD+ in the territories and train the institutional members as well as the territorial and community leaders in all matters related to the ENDE-REDD+ implementation.

4.-Benefit distribution arrangements

The process to access funds

In this section it is only possible to mention proposals, since these issues have not yet been socialized in the ENDE-REDD+ platform. We expect they will be discussed during consultations in the territories, when these topics are dealt with and decisions on the progress of ENDE are made.

In this section we describe some of the matters that should be taken into consideration in regards to the access to funds or economic resources to carry out pilot projects that can be applied in the REDD+ mechanism under the ENDE framework:

- In the Autonomous Regions, access to funds will be transferred from the Ministry of Finance to the Finance secretariat of the Regional Councils and through agreements with the territorial Governments (GTI),
- as well as with other fiduciary authorities (FONADEFO, BANCO PRODUZCAMOS, FONDO AMBIENTAL) who will also transfer funds to the Autonomous regions. As mentioned in the previous section FONADEFO represents the best option for resource distribution in matters of positive incentives for the reduction of deforestation and forest degradation.
- Law 445 will be applied to strengthen the access mechanisms and the equitable distribution of benefits.
- Another option is that each Region can create its own mechanism (Autonomous Sub-system of Avoided Deforestation) based on Law 28 and Law 445.
- Analysis of the ownership of carbon, as well as access and distribution of the financial resource.

ENDE-REDD+ training and dialog is fundamental to improvement of the quality of the process, ensuring the use of largest amount of robust and official information. It is also important to consult key people in the territories and institutions , primarily those who are linked to the forest and environment sector, without leaving out the appropriate participation of other relevant sectors of the country (agricultural, energy, transportation, among others).

Nicaragua does not have a specific unit for the distribution and participation of carbon benefits. In the development of the strategy we plan to carry out systematization of experiences study which will allow for the design and construction of the necessary structures for the distribution of ENDE-REDD+ structures.

Among the anticipated activities to be carried out from the implementation of the ENDE-REDD+ strategic actions, are the strengthening of forest governance authorities and the construction of structures that will recognize ecosystem services.

With the implementation of the strategy carbon reconciliation could be allowed, as well as the improvement of soil use and the direct impact on emissions reduction.

During the formulation process of the proposal a study will be carried out which defines the transaction costs of the mechanism of carbon benefit participation, and identifies the arrangements needed to ensure these benefits are well received by the beneficiaries of these carbon resources.

5.-Carbon monitoring, benefits and co-benefits of the forests.

During the readiness phase of the ENDE-REDD+ proposal, the design and construction of a carbon monitoring system

will be considered. This outline will ensure monitoring of the ENDE-REDD+ activities, as well as emissions reduction.

In this structure we will ensure the control and follow-up of carbon benefits. During this process the definition of the tools that will allow the collection and organization of the carbon related data.

The tools contain the information that will ensure an effective use of resources for carbon beneficiaries, as well as the guarantee that this benefit will reach the beneficiaries when and how it should.

Figure 4. Deforested Areas

The carbon monitoring unit will have a very specific role and will be an independent structure from the implementation unit. The guarantees for the delivery of carbon benefits will be given out by the monitoring unit.

As part of the process we will define the rules and regulations that will clearly state how the carbon benefits follow-up process will be developed, as well as the delivery of guarantees the beneficiaries will have to present in order to have access to payments for ecosystem services

In order to support this process the strategy will consider in the institutional strengthening guidelines, the establishment of a claims and grievances mechanism and a social audit unit where it will be possible to discuss all matters related to the mismanagement of resources.

Implemetation Framework Activities

1. Establish the legal and administrative conditions necessary for the efficient management of ENDE=REDD+ economic resources in the country.

Include and analysis of the current legal and administrative conditions and identify the gaps in relation to the administration of ENDE-REDD+ (consultation-study).

Create administrative and legal proposals to fill in the gaps found (consultation-study, meetings, workshops). Eventually promote legislative processes that favor the implementation od the ENDE-REDD+ measures.

2. Establish an administrative payment system for ENDE-REDD+ measure that ensures and equitable distribution among public and private stakeholders.

This activity includes developing a administration proposal based on the results of activities 2b.2 and 2c1.

3. Identify priority areas to implement ENDE=REDD+ measures or activities. Select the key criteria to prioritize the ENDE-REDD+ sites; identify key areas to implement future ENDE-REDD+ activities (region, department, municipalities, etc.)

Includes: Review and adjustments of criteria and indicators for ENDE-REDD+ implementation site selection (with ans inter-cultural focus), through a socialization workshop in pilot areas.

4. Carry out feasibility studies of the ENDE-REDD+ pilot project (RAAN-RAAS-RSJ-NS) that includes hurricane areas, titled areas in indigenous territories, forest certification in indigenous territories (2 pilot areas in 2011 and 2 pilot areas in 2012: hurricane areas and Indio Maíz).

TABLE 29: Activity, Timeline and Budget Summary of the implementation framework 2c

Activities	Estimated Cost (in thousands of US$)				
	2012	2013	2014	2015	Total
Draft rules and regulations for REDD+ activities implementation	$20				**$20**
Carry out workshops for the development of a carbon, benefits and co-benefits follow-up and monitoring system.	$25	$25			**$50**
Define the transaction cost to establish and operate the economic recognition of ecosystem services.	$25	$15			**$40**
Create mechanisms, tools and procedures for carbon, benefits and co-benefits monitoring and follow-up	$15	$15	$10		**$40**
train the local, territorial, regional and national institutional members on the implementation of the economic recognition of ecosystem services.	$20	$20	$20		**$60**
Workshops to define the institutional arrangements that will ensure the implementation of ENDE-REDD+ activities and the follow-up and biophysical, water, diversification, production and CO_2 monitoring.		$10	$10	$10	**$30**
Total	**$105**	**$85**	**$40**	**$10**	**$240**
National Government					**$0**
FCPF	$50	$50	$40	$10	**$150**
UN-REDD Program (if applicable)					**$0**
Another Development Ally 1 (name)					**$0**
Another Development Ally 2 (name)					**$0**
Another Development Ally 3 (name)	$55	$35	$0	$0	$90

2d. Social and Environmental Impacts during Readiness Preparation and REDD-plus Implementation

Standard 2d the R-PP text needs to meet for this component:
Social and environmental impacts during readiness preparation and REDD-plus implementation:

The proposal includes a program of work for due diligence in the form of an assessment of environmental and social risks and impacts as part of the SESA process. It also provides a description of safeguard issues that are relevant to the country's readiness preparation efforts. For FCPF countries, a simple work plan is presented for conducting the SESA process, cross referencing other components of the R-PP as appropriate, and for preparing the ESMF.

Please provide the following information:

- **Discuss the approach to be followed for ensuring compliance with the relevant safeguard policies and how the ESMF will draw on other components of the R-PP as needed;**
- **If work on the REDD-plus strategy has advanced to the point where draft input to ToR for the ESMF can be provided, please do so briefly below (guidelines for preparation of ToRs are available in Annex C). Present the relevant equivalent if a non-FCPF UN-REDD Programme Country. Since all details will not be available at the R-PP formulation stage, it is understood that the draft input to ESMF will need to be revised during the preparation phase;**
- **Fill in the budget and funding request in Table 2c (the detailed budget and funding data go in Component 5);**

Add your description here:

Social and Environmental Impacts during the Readiness Preparation and Implementation of REDD-plus

In the context of updating and implementing the National Human Development Plan (PNDH of the Nicaraguan state, backed by the current legal and administrative framework and in accordance with the World Bank environmental and social safeguards, a preliminary proposal was presented for the development of theSocial and Environmental Strategic Assessment(SESA), in order to ensure the sustainability of the ENDE-REDD+ strategy by maximizing the benefits and reducing potential risks, as well as social and environmental conflicts that could arise from its implementation.

The implementation of the SESA methodology aims to ensure the integration of environmental and social considerations of all of the involved stakeholders during the ENDE-REDD+ formulation and implementation. Consequently, the implementation of SESA is a tool to link the different components, actions and activities necessary to develop ENDE-REDD + and the implementation of the R-PP presented by the Nicaraguan state. In this sense, although SESA is presented as a component *per-se* within the R-PP proposal, its activities also represent inputs of transversal reach in all the other components.

Component 2.d defines the need to build a SESA work plan, in order to identify and analyze the various social and environmental risks associated with the national ENDE-REDD+ strategy which provides information for the development of a Environmental and Social Management Framework (ESMF). The

ESMF will provide the necessary guidelines to prevent, mitigate and manage environmental and social risks of any strategic option implemented by the ENDE-REDD +, as well as the identification of potential impacts of other productive sectors in the sustainability of the forest ecosystems and communities which depend on them. This strategic approach to risk management, which includes different sectors around forest management that the SESA process provides, also allows to aim the interventions under the strategy framework towards strengthening the ***adaptation*** capabilities of the country.

The preparation of the R-PP has driven a broad process of early dialogue and consultation with relevant stakeholders interested in the development of the ENDE-REDD + (see component 1.b). Consequently component 2.d proposes to continue the dialogue and include a series of sessions designed to identify and measure social and environmental risks and opportunities of the ENDE-REDD+ strategic objectives for indigenous peoples and local communities to guarantee their rights, taking into account that the SESA will be supported by the information and early dialogue strategies contained in component 1b and which will provide feedback to the consultation process of the ENDE-REDD + in component 1c. It is important to highlight that throughout the SESA process the principle of free, prior and informed consultation, without interference or pressure and external manipulations, will be applied. Free is understood to mean free will, without being induced or compelled to say something; prior (to make known prior to making decisions when they will be consulted) and informed (providing the whole truth about the process, to know the good as well as the bad using an appropriate language). The identification and analysis of social and environmental risks and the benefits of carrying out the SESA processes is established within the context of the national legal framework and operational policies of the World Bank. Some important policies include: Indigenous Peoples (OP 4.10), environmental assessment (OP 4.01), involuntary resettlement (OP 4.12), forests (OP 4.36), natural habitats (4.04), physical cultural resources (OP 4.11), pest management (OP 4.09) and projects in disputed areas (OP 7.60).

To develop the SESA process two phases have been proposedwhich go parallel with the ENDE-REDD + proposal formulation process. Phase 1 corresponds to the activities developed during the formulation phase of the R-PP and phase 2 is related to the activities that will be carried out in the design phase of the ENDE-REDD + strategy. Figure 15 summarizes schematically the phases to be developed by the SESA process:

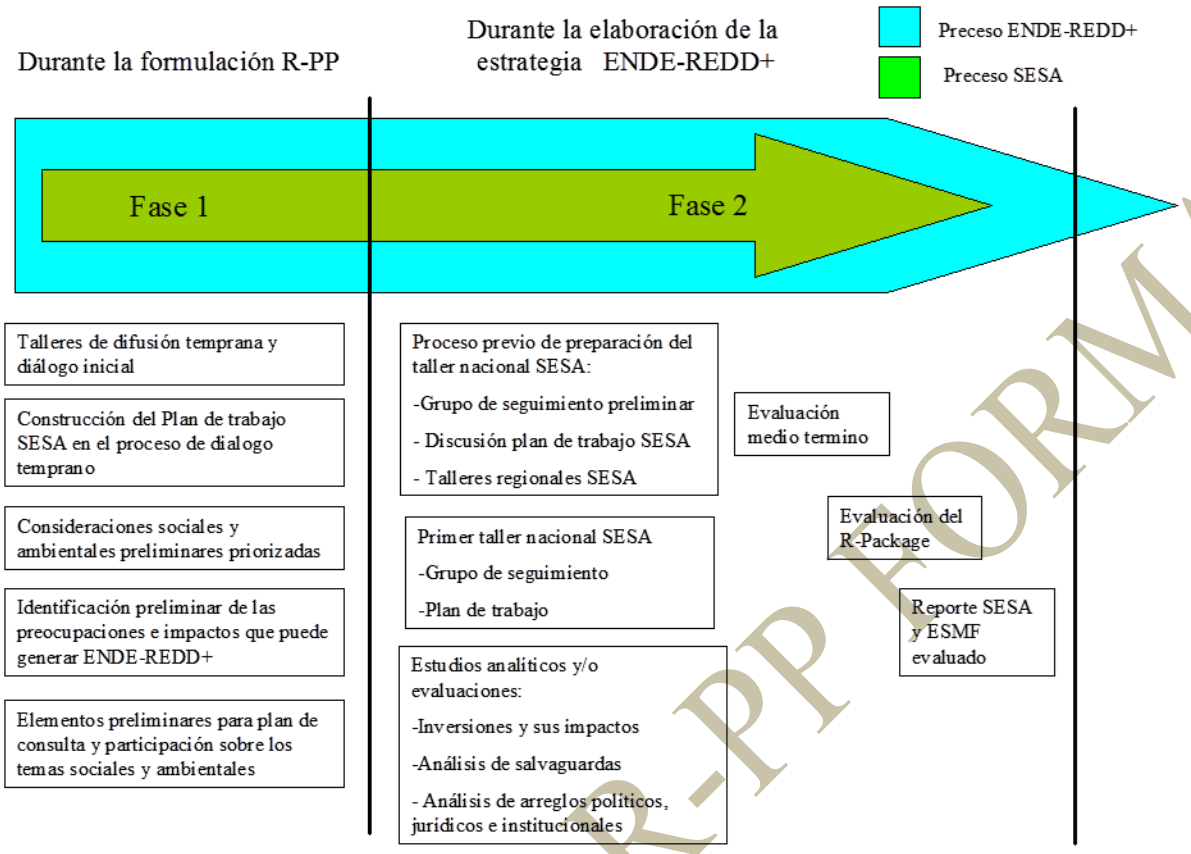


Figure 15. Development phases of the SESA process

Below we describe the phases in which the SESA process will be carried out:

Phase 1. During the formulation of the R-PP

Preliminary problems and social and environmental impact

To encourage participation of all interested parties linked to the ENDE-REDD+ strategy, with special emphasis on indigenous, rural and local communities, a preliminary identification of concerns and social and environmental impacts related to the problem of deforestation and degradation in Nicaragua was carried out. This information was collected in a series of workshops (described in component 1.c) developed in the context of the early dissemination of information and initial dialogue. These workshops were conducted with the principal stakeholders defined in the three levels of participation of the inter-sectoral and inter-institutional platform called the ENDE-REDD+ platform, described in component 1.a. This process will be coordinated by MARENA (ENDE-REDD+ focal point) and the executive team formulating the R-PP during 2012.

Furthermore, a series of documents have been analyzed (the ENACC, the PNDH, CADPI and component 2.b inputs among others), which has resulted in a preliminary summary of the main environmental and social concerns, as well as their impacts (see Annex 2d 1) which will serve as a reference framework to help identify the Social and Environmental Impacts of the ENDE-REDD+ strategy in the workshops that are being developed in the initial dialog process in 2012.

- **Priority social and environmental considerations**

To induce an analytical process we integrated the environmental and social priority considerations that emerged from the review of the ENDE-REDD+ strategic options presented in component 2.b, considering that these options are based in the ENDE-REDD+ and that at the same time it is immersed and linked to the general lines of work established in the PRORURAL Incluyente (component 2.b). This process will be coordinated by MARENA (ENDE-REDD+ focal point) and the executive team formulating the R-PP during 2012.

Based on the analysis of the strategies presented in component 2.b and the contributions of the early dissemination and initial dialog workshops, it was possible to preliminarily define some of the social and environmental priorities that should be taken into account in the ENDE-REDD+,as presented in the next table, nevertheless it is expected that this list will change during the implementation of the SESA process.

TABLE 30. Preliminary definition of environmental and social priorities

Strategies	Social and Environmental Priorities
1. Strengthen the institutional capabilities and the governing forestry structures (national, regional, municipal and indigenous territories)	• Strengthen the institutional capabilities of institutions **(GTI, GRAAN, GRAAS, etc.)** and organizations linked to the monitoring and follow-up process of ENDE-REDD+ • Apply relevant laws to illegal loggers. • Ensure environmental and ecological standards of the territory (GTI) are taken into account in ENDE-REDD+.
2. Technological restructuring of the production systems (forest and agriculture) with a focus on adapting to climate change	• Harmonizing the agricultural, livestock and forestry sectors to promote a reduction in the expansion of the agricultural frontier. • Develop an environmental and social management framework that promotes the conservation of natural resources • Promote agricultural, livestock and agro-forestry technology to increase soil productivity and increased biomass production by area. • Strengthening community forest management through experiences in territories where there is greater vulnerability. • Stop, mitigate, and regulate migration from the Pacific.
3. Adjustment and Alignment of the regulatory and policy framework	• Prioritization among the various plans PRORURAL, etc . ENDE that influence the process of articulating, engaging, aligning and implementing public policies for avoided deforestation and the reduction of natural forest degradation.
4. Strengthen the agricultural, livestock and forestry commercial network, as well as the value chains of the products of these activities	• Promote activities that provide opportunities that directly benefit indigenous peoples and promote their traditional knowledge as an added value of their products.

5. Improve the territorial governance and support the legislation processes of indigenous properties	• Promote strategic alliances and networking among local institutions, the community and its territories. • Promote the development of indigenous skills and knowledge of natural resource management and indigenous technology. • Organize and consolidate the capabilities of community leaders at the territorial and municipal levels. • Ensure the dissemination and communication program is presented in a simple and educational language • Respect the rights and traditional knowledge of indigenous peoples
6. Development of incentives for the protection, conservation and land use change	• Develop mechanisms that allow the benefits from ENDE-REDD+ to suit local conditions in order to promote a fair and equitable distribution to all beneficiaries. • Establish a participatory, effective and efficient mechanism for the equitable sharing of the benefits obtained from the incentives mechanism or the compensation instruments for ecosystem services among stakeholder and rights-holders groups, taking into account the costs, benefits and associated risks.

- **Preliminary discussion on the monitoring group SESA and the inter-sectoral coordination mechanisms**

SESA is a process that supports the preparation of the ENDE-REDD+ National Strategy. This process will be conducted in a participatory manner by the inclusion of those affected and by carrying out analyzes on social and environmental risks and benefits that must be taken into account in the national strategy under the leadership of MARENA. Nevertheless, it is necessary to create a SESA monitoring group to ensure the operability of the process. In this regard, Nicaragua has promoted a series of early dissemination and initial dialogue workshops that, among other things, provided an opportunity to open the discussion to identify the group of key stakeholders that could make up the SESA group. Level I will be responsible for appointing a preliminary monitoring group, to work with technical support in the construction of the criteria and functions of the members of that group. For this purpose we have provided the budgetary resources for coordination meetings of Levels I and II. Institutions which may conform the SESA preliminary monitoring group are described in the table below (more information on these stakeholders can be found in the component 1.b)

Table 31. List de stakeholders which may conform the SESA preliminary monitoring group

Levels	Stakeholders	Possible roles for the stakeholders	Monitoring team
	MARENA	Coordination	

National	Indigenous representatives	Territorial monitoring and follow-up	MARENA
	MARENA, MAGFOR, INAFOR, GRAAN, GRAAN, NGO´s	Decision Making	
	INETER and social and environmental organizations	Support for the regularization of forest land tenure	
Sub-national	Regional Governments of the RAAN (GRAAN) and Regional Governments of the RAAS (GRAAS)	Regional administration and coordination	GRAAN GRAAS
	Development Secretariat of the Caribbean Coast (SDCC)	Supports the process	
	GIZ	Donor representation	
	Forest Consultative Council (CCF-A) of the RAAN	SESA regional monitoring	
	PGR, Army, National Police	Indigenous peoples territorial reorganization.	
	Cattle Farming Sector The National Union of Farmers and Ranchers of Nicaragua (UNAG), National commission for farmers (CONAGAN), Federation of Livestock Associations of Nicaragua (FAGANIC).	Supports the process	
	Universities: UNA UNA UNI URACCAN	Research, train institutions, assistance Generate information and experience exchanges Summarize and systematize information	
Local	Indigenous Territorial Government (GTI)	Administration Follow-up and control of safeguards and indicators Monitoring and reporting	GTI and/or MAYORS OFFICES
	Directly involved stakeholders, forest owners and interested parties		
	MARENA-MAGFOR territorial delegations		
	Local social organizations with a presence in the territory, such as NGOs and unions: CADPI AMICA ANACC		
	Mayor's Office		

The table above names the relevant stakeholders involved in the early dissemination workshops and initial dialog, Annex 2d.2 describes their possible roles within the SESA process. From the analysis of the results, it was concluded that MARENA could coordinate the SESA process nationally, as it is the focal point for ENDE-REDD+. The selection of the list of representatives of the different proposed organizations that conform the monitoring team will be defined in a participatory manner during the regional preparatory workshops and the national SESA workshop.

Phase 2. During the Development of the ENDE-REDD+ strategy

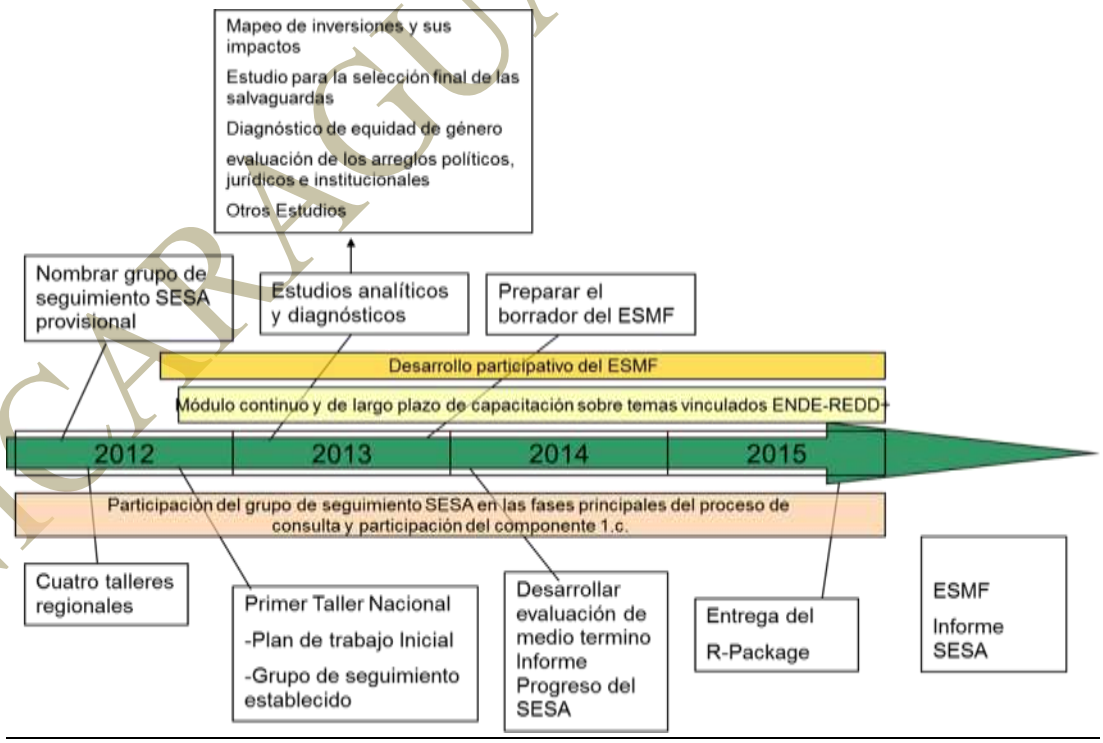
For component 2.d of the corresponding SESA R-PP, Phase 2 will be approached with a focus on methodological planning, through the development of strategic guidelines on how the SESA activities will generally be implement, and in some cases, it may even be possible to specify when they will be carried out. For this, we will take into account the ENDE-REDD+ strategic guidelines and the ToR templates for the development of the corresponding activities.

This phase will be developed in two stages; the first will begin after the PC has positively assessed the R-PP and before the bank signs the grant. That phase will be known as "due diligence". The estimated resources for the due diligence period could be funded with the remainder of the RPP preparation fund (TF 099264 MARENA / WB) and other donors such as GIZ. This sum amounts to $ 85,000 U.S. dollars, which is reflected in Table 33 corresponding to the general budget of the Social and Environmental Assessment System.

A second phase begins after the signing of the Grant by the bank (up to U.S. $ 3.6 million) for the preparation of the strategy, that phase will be reflected in the budget in table 33 as "post-due diligence".

Figure 16 is a graphical representation of each of the steps of the simple work plan. Below is a breakdown of the methodology to be followed.

Figure 16. Schematic description of the second stage of the SESA process



Live participatory process in the Due Diligence phase

Considering that SESA is essentially a consultation and participation plan which includes the analytical work, it should be considered as a general framework of the second phase of International Convention 169 on Indigenous and Tribal Peoples in independent countries, which was ratified by the National Assembly, Law No. 28 Statute of Autonomy of the Atlantic Coast Regions of Nicaragua, published in the Official Gazette No. 238 of October 30, 1987 and Law No 445, Law of Communal Property of Indigenous Peoples and Ethnic Communities of the Autonomous Regions of the Atlantic Coast of Nicaragua and the Bocay, Coco, Indio and Maiz. Consultation sessions will be organized in compliance with the criteria presented below:

- *The principle of free, prior and informed consent without pressure or interference or external manipulation.*
- *Recognize existing structures of organizations of indigenous or peasant communities with special consideration of women, youth and the elderly.*
- *Allow sufficient time for the consultation process to support proper decision-making in communities, consider their concerns and questions and incorporate the recommendations of indigenous peoples and ethnic communities, ensuring full and effective participation.*
- *Incorporate advice from technical staff who has worked with indigenous and peasant communities (eg, anthropologists, social scientists, extension workers, multidisciplinary teams).*
- *Develop policies and specific provisions for the implementation of ENDE appropriate and aligned with the internal indigenous and peasant communities' processes.*
- *To ensure maximum participation of the different representations (Indigenous Peoples, Afro-descendants, Mestizos) territorial representation of indigenous peoples, Afro-descendants and mestizos.*

a) Appointment of a SESA preliminary monitoring group, to carry out the previous process of preparing the national workshop. This group will prepare the methodology and agenda of the regional workshops and of the first national workshop, as well as feedback on the SESA simple work plan. The SESA simple work plan was formulated with all the inputs obtained from the first methodological phase, which has been developed by the ENDE-REDD+ (MARENA) focal point and the executive team formulating the R-PP, which has finalized some queries and technical meetings which are reflected in component 1b. This plan should be a guide to the various analytical activities, capacity building, consultation, information dissemination and criteria for prioritizing needed policy reforms that emerge from the same SESA process. Level 2 will be in charge of the appointment of the group with previous Level 1 approval, in 2012. **The expected product from this activity is an improved SESA work plan with feedback** proposed by the preliminary monitoring group. It is anticipated that this activity receive support from a specialized technical structure that will permit to ensure the integration of relevant aspects for the process that will ensue.

b) Four regional workshops that will receive input on the SESA simple work plan prepared by interim monitoring group. An exercise to identify risks and benefits of the social, environmental and legal strategic policy options that will strengthen the plan, will also be carried out. To promote the inclusion of the governance experiences, we will concentrate on areas with greater forest cover, according to the 2010 forest inventory data, which are mentioned below:

1. Municipality of San Carlos which covers the areas of Río San Juan de Nicaragua, El Castillo, Boca de Sábalo and San Miguelito.
2. Municipality of Nueva Guinea that covers the areas of El Rama, Muelle de los Bueyes and Bluefields.
3. Municipality of Ocotal covering the areas of Jalapa, San Fernando, Ciudad Antigua and Madriz.
4. Municipality of Jinotega including Matagalpa.
5. RAAN where a sub-national strategy will be developed.

A preliminary proposal of the stakeholder analysis described in component 1.b will be confirmed in the workshops, to establish a coordination mechanism at the national, sub-regional and local levels that will allow for greater operational activity of the SESA monitoring group. This analysis should take into account the existence of a balance of stakeholders in the composition of the monitoring group where all stakeholders are represented in the strategy (indigenous peoples, farmers, cattle ranchers, women, youth, private sector, among others).

These spaces will provide inputs to strengthen the participatory processes, communication and dissemination of public information, which will promote the appropriate participation of civil society and those who are dependent on the forests in the ENDE-REDD+ consultation and participation process described in component 1.c. Therefore to guarantee the active participation in the main phases of consultation and participation process of component 1.c, a budget has been prepared that will provide the opportunity to rely on a specialized outside counsel and on dissemination and publication of key documents to facilitate the visibility of the results achieved in the different stages of the SESA process.

The regional workshops will be the responsibility of the SESA interim monitoring group in 2012. The products of the workshops will be the SESA simple work plan and feedback, and the agenda and revised methodology of the national workshop. The facilitation of these workshops will be supported by a technical arm that will allow the proper systematization of the process.

c) A national workshop to consult, discuss, review and agree on the SESA work plan and the timeline and key milestones in the decision making process. The 1st national workshop should raise certain questions or issues, such as:

- Discuss how to assess institutional capacity and promoting ownership of the ENDE-REDD+ process.
- Discuss how to establish a strong and participatory decision-making and accountability mechanism.
- How can we strengthen a formal institutional structure for dialogue within a framework of multiple stakeholders, which must be based on the three levels described in component 1a.
- How should the relevant policies, sectors and systems reforms be identified and addressed in the policy matrix and in sectoral reforms.
- Define how to monitor and evaluate the effectiveness of the SESA process and formulation and implementation of the ENDE-REDD+ Strategy.

Expected results: Consensus and validated the SESA work plan that includes the components described in the methodology.

Analytical Studies and/or Assessments

Below is a brief description of the analytical studies to be held in the second phase, however it is important to note that this is a preliminary list and that it is possible that other studies are identified during the regional workshops and other events, therefore the budget has been estimated.

a) Mapping of investments (productive, economic and sectoral) and their impacts on the forest regions of the country, an assessment of the environmental and social impact of these sectors in the forest regions of the country from the perspective of the ENDE-REDD strategic guidelines.

Expected results: Identified and evaluated environmental and social impacts of all public and private investment of the productive sectors that impact the forests.

b) Analysis of the actions related to the compliance with safeguards applicable to Nicaragua (Budgeted in the process of due diligence.)

The final selection of safeguards or operational policies of the World Bank that can be applied to the ENDE-REDD+, linked as well with the national regulations, is considered a key milestone in the ENDE-REDD+ preparation phase and is expected to count on the assistance of the Bank in this process.

This constitutes an important input for developing the strategic environmental and social management framework (ESMF), whose purpose is to mitigate and manage the impacts and risks associated with the implementation of the strategic options of ENDE-REDD+, which will be defined within component 2b. This management framework is the basis for developing the ENDE-REDD+ implementation phase.

In the context of Nicaragua, the analysis of the safeguards related to indigenous peoples, involuntary resettlement, environmental assessment, forests and natural habitats is considered a priority. However, for the final determination of the applicable safeguards, a comprehensive operational analysis of which policy could be activated as part of the ENDE-REDD+ strategic options will be conducted.

Within these safeguards, the following are considered to be priorities:

- Policy on Indigenous Peoples (OP/BP 4.10): For this we propose to carry out at least one social study on indigenous peoples, as well as planning in conjunction with the stakeholders identified in Level III of component 1a, a consultation process that is free, prior and informed, without pressure or interference or external manipulation. In the framework of the dialogue process with key stakeholders that were defined in the three levels of participation of component 1a, members or representatives of the communities should be allowed prior access (consultation and decision making) to relevant information.
- Policy on Involuntary Resettlement (OP/BP 4.12): It is necessary to perform detailed studies of policies and regulations that will allow to identify whether there are aspects within them that take into consideration the voluntary relocation of indigenous peoples and peasant communities. If these are not present, the possibility of including them, with prior consultation with the stakeholders, should consider.
- Environmental Assessment (OP/BP 4.01): The SESA methodology will be used to assess the negative and positive impacts of the ENDE-REDD+ strategy, and its social and environmental risks. A Management Framework, ESMF, will also be proposed that will allow to minimize the risks, provide a baseline scenario, as well as a follow-up monitoring system.
- Forests (OP/BP 4.36): Realize the potential of forests to reduce poverty in a sustainable manner, integrate forests effectively into sustainable economic development and protect local and global environmental services and the value of forests;

- Natural Habitats (OP/BP 4.04): To promote sustainable development in harmony with the environment through support for the protection, preservation, maintenance and rehabilitation of natural habitats and their functions;

Other safeguards to be considered for the final determination:

- Physical and Cultural Resources (OP/BP 4.11)
- Pest Management (OP 4.09)
- Projects in Disputed Areas (OP/BP 7.60)

Expected results: A list of related ENDE-REDD+ safeguards and related actions for their compliance.

c) Design and implementation of ENDE-REDD+ training modules:

To ensure effective participation, we will promote the establishment of a continuous and long-term ENDE-REDD+ training module, considering key issues such as compliance with applicable World Bank safeguards in all of the programs resulting from the ENDE-REDD+ strategic lines.

Expected results: A training program on ENDE-REDD+ and its implementation.

d) Diagnosis of gender equity in the management of forest resources:

Promote full and effective participation of women, *"a fundamental aspect in the SESA process*," because indigenous women play an important role in forest and natural resources management, and in the transfer of knowledge. For this reason there are specific concerns because women tend to be highly vulnerable to the impact of climate change, which harms their livelihood, which could be particularly affected with ENDE-REDD+.

In this sense the process of consultation and participation component 1.c. in its three phases should promote the full and effective participation of women in all decision making levels of the ENDE-REDD+. To ensure this, the plan should include basic aspects such as workshops planning and meetings at times when women can participate, that women are invited to these events, and it should promote the full and effective participation of women within these organizations. Local structures that give rise to equality between men and women should also be strengthened. It is recommended to make a gender equity diagnosis in the management of forest resources, which will allow to identify gender gaps, and develop a proposal with a gender focus in the ENDE-REDD+ consultation and participation plan. The SESA monitoring team will be in charge of coordinating this process in 2013.

Expected results: Identified gender gaps and develop a proposal with a gender perspective within the ENDE-REDD+ consultation and participation plan

e) An assessment of the political, legal and institutional arrangements, including identifying deficiencies in the institutional and territorial capability to manage the identified environmental and social priorities, as well as environmental and social risks and the potential impacts of the proposed ENDE-REDD+ strategic options.

Expected results: Delimited political, legal and institutional arrangements which will allow for the implementation of ENDE-REDD+; identified institutional and territorial capacity building requirements to manage environmental and social priorities under the SESA framework.

f) Provide input to prepare the ESMF, which is the end product of the SESA processes, in line with the World Bank's final list of safeguards and ENDE-REDD+ strategic options, resulting from component 2b which will be able to supply social, environmental and economic satisfaction impact indicators, as well as a monitoring and evaluation proposal of social measures adopted in the ENDE-REDD+ mechanism, which will be integrated into component 6 of the R-PP.

Expected results: Systematized milestones of the SESA process for the ESMF.

g) External Evaluations and/or Independent SESA Process and the formulation of the ENDE-REDD+ Strategy.

Expected result: A developed midterm evaluation.

h) Prepare a report with a summary of SESA activities and their results.

Expected result: Final version of the ESMF

i) Other analytical studies and/or evaluations prioritized in the SESA workshop.

During the National workshop, the stakeholder's representatives will define other possible studies to prioritize which will allow to strengthen the SESA process. To ensure the completion of these studies a separate section on the SESA budget has been included in Table 33.

Below, a simple work plan for the Social and Environmental Strategic Assessment System is presented, which lists all the activities proposed in the system.

TABLE 32. Simple work plan for the Social and Environmental Assessment Strategy Assessment

Objective	Result	Activity	Responsible	Time in years			
				2012	2013	2014	2015
Phase 1. During the formulation of the R-PP							
Collect inputs in the process of early dissemination of information and initial dialogue for the participatory construction of the strategic, environmental and social assessment SESA	Stakeholders linked to ENDE-REDD+ participate and generate inputs for the social and strategic environmental assessment process (SESA) **Inputs: Preliminarily identified:** 1. Social and environmental impact and concerns 2. Social and environmental priorities 3. Potential stakeholders for the SESA monitoring group and coordination mechanisms	Early dissemination workshops and initial dialogue	MARENA (focal point in the ENDE-REDD+ process) and the executive team formulating the R-PP	X			
Start the process of analyzing information relevant to the construction of the Strategic environmental and social assessment of	Align the results of the early dissemination of information and initial dialogue process (workshops), with information relevant for the construction of the Strategic, Environmental and Social Assessment of ENDE-REDD+.	Document analysis of: 1. The ENACC 2. The PNDH 3. PRORURAL incluyente 4. Component 1.a	MARENA (focal point in the ENDE-REDD+ process) and the executive team formulating the R-PP	X			

Objective	Result	Activity	Responsible	Time in years			
the ENDE-REDD+.	Identified and integrated the preliminary priority environmental and social considerations	Review inputs of component 2b of the R-PP strategic options and general lines of work proposed in the PRORURAL Incluyente					
Phase 2. During the Development of the ENDE-REDD+ strategy							
Ensure the definition of an interim monitoring group to promote the first activities of the SESA participatory process. (due diligence stage)	Appointed interim monitoring group. Methodologies and agendas of the regional workshops and of the first designed national workshop. A revised simple SESA work plan.	Coordination meetings of Level I and Level II in order to appoint a SESA interim monitoring group on behalf of level 1. Preparation and construction of the methodologies and agendas of the regional workshops and the first national workshop. Formulation of a SESA preliminary work plan Technical assistance to guide the process.	Level 2 proposes and approves Level 1.	X			
Promote a live participatory process that ensures dialogue, discussion, feedback and participatory review of the SESA Work Plan. (due diligence stage)	Obtained feedback for the SESA preliminary work plan.	Four regional workshops	Appointed SESA interim monitoring group.	X			
	SESA Work Plan and timeline, and key milestones in the agreed decision making process	One national SESA workshop	Appointed SESA interim monitoring group.	X			
	Workshops carried out.	SESA workshops facilitation	SESA monitoring group.				
Promote a process of analytical studies	Defined negative and positive impacts facing the ENDE-REDD+ stakeholders	A mapping of investments (productive, economic and	SESA monitoring group.		X		

Objective	Result	Activity	Responsible	Time in years			
and/or evaluations		sectoral) and an assessment of the social and environmental impact of these sectors on the forest regions of the country from the ENDE-REDD strategic guidelines perspective.					
	Determined the safeguards applicable in ENDE-REDD+.	A study on World Bank safeguards or operational policies that may apply to ENDE-REDD+	World Bank	X	X		
	Defined political, legal and institutional arrangements.	An assessment of the political, legal and institutional arrangements.	SESA monitoring group.		X		
	Identified gender gaps to promote active and effective participation of women in the ENDE-REDD+	A diagnosis of gender equity in the management of forest resources to identify gender gaps and incorporate activities which promote active and effective participation of women in ENDE-REDD+.	SESA monitoring group.		X		
	Information necessary to strengthen the process.	Analytical studies and/or evaluations prioritized in the SESA workshop.	SESA monitoring group.		X	X	
Ensure compliance with the World Bank safeguards applicable to all programs resulting from the strategic lines of the ENDE-REDD+	Continuous, long term training module on SESA	Design and implementation of a SESA training program	SESA monitoring group.		X	X	X
Ensure adequate participation of civil society and of forest dependent	Civil society and forest dependent stakeholders' active participation at all stages of the ENDE-REDD+ global consultation plan	SESA monitoring group actively participates in the main phases of consultation and participation of component 1.c.	SESA monitoring group.	X	X	X	X

Objective	Result	Activity	Responsible	Time in years			
stakeholders at all stages of consultation, provided for in the ENDE-REDD+ global consultation plan	Implementation and technical monitoring of the SESA work plan.	Specialized outside counsel	SESA monitoring group.				
	Socialization of the interested parties with the information related to the process.	Publication and dissemination of the SESA process	SESA monitoring group.				
Design the ESMF guided by the social and environmental operational policies of the World Bank.	Designed Environmental and Social Management Framework (ESMF)	Procedures are developed to manage the social and environmental impacts from ENDE-REDD+ specific actions.	SESA monitoring group.		X		
Preparation for the external midterm evaluation and of the R-Package	Final version of the revised R-Package: • Assessed ESMF • SESA report	Preparation for the Midterm Progress review. Assessment of the Readiness Package (R-Package) Design and deliver a progress report.	SESA monitoring group.		X	X	X

TABLE 33. Budget, Timeline and Activities Summary of the Social and Environmental Assessment System

Main Activity	Sub. Activity	Estimated Cost (in thousands of US$)				
		2012	2013	2014	2015	Total
Fase 1, during the formulation of the R-PP/ENDE-REDD+						
This phase is being undertaken by the donation of TF 099264 MARENA/BM						
Phase 2. Period 1, due diligence						
Ensure the definition of an interim monitoring group to promote the first activities of the SESA participatory process. (due diligence stage)	Coordination meetings of Level I and Level II in order to appoint a SESA interim monitoring group on behalf of level 1.	$5				**$5**
	Preparation and construction of the methodologies and agendas of the regional workshops and the first national workshop.	$5				**$5**
	Formulation of a SESA preliminary work plan	$5				**$5**
	Technical assistance to guide the process.	$20				**$20**
Promote a live participatory process that ensures dialogue, discussion, feedback and participatory review of the SESA Work Plan (due diligence stage)	Four regional workshops	$20				**$20**
	One national SESA workshop	$10				**$10**
	SESA workshops facilitation	$10				**$10**
Promote a process of analytical studies and/or evaluations	A study on World Bank safeguards or operational policies that may apply to ENDE-REDD+	$10				**$10**
	Total budget for the due diligence stage	$85	$0	$0	$0	**$85**

Phase 2. Period 2, post-due diligence						
Promote a process of analytical studies and/or evaluations	A mapping of investments (productive, economic and sectoral) and an assessment of the social and environmental impact of these sectors on the forest regions of the country from the ENDE-REDD strategic guidelines perspective.		$30			**$30**
	An assessment of the political, legal and institutional arrangements, including identifying deficiencies in the institutional and territorial capability to manage the identified environmental and social priorities,		$20			**$20**
	A diagnosis of gender equity in the management of forest resources to identify gender gaps and incorporate activities which promote active and effective participation of women in ENDE-REDD+.		$15			**$15**
	Analytical studies and/or evaluations prioritized in the SESA workshop.		$20	$20		**$40**
Ensure compliance with the World Bank safeguards applicable to all programs resulting from the strategic lines of the ENDE-REDD+	Design and implementation of a SESA training program	$10	$10	$10		**$30**
Ensure adequate participation of civil society and of forest dependent stakeholders at all stages of consultation, provided for in the ENDE-REDD+ global consultation plan	SESA monitoring group actively participates in the main phases of consultation and participation of component 1.c.		$10	$10	$5	**$25**
	Specialized outside counsel		$18	$18	$18	**$54**
	Publication and dissemination of the SESA process			$10	$15	**$25**

Design an ESMF that is guided by the environmental and social operational policies of the World Bank	Developed operational procedures to manage the social and environmental impacts from ENDE-REDD+ specific actions.			$20	$10	**$30**
Preparation for the external midterm evaluation and of the R-Package	Preparation for the Midterm Progress review .			$10		**$10**
	Assessment of the Readiness Package (R-Package)			$20		**$20**
	Design and deliver a progress report.				$10	**$10**
	Total	**$10**	**$123**	**$118**	**$58**	**$309**
National government						**-**
FCPF		**$10**	**$123**	**$118**	**$58**	**$309**
UN-REDD Program (to apply)						**$0**
Other Development Partners 1 (name)						**$0**
Other Development Partners 2 (name)						**$0**
Other Development Partners 3 (name)						**$0**

Component 3: Develop a National Forest Reference Emission Level and/or a Forest Reference Level

Standard 3 the R-PP text needs to meet for this component: Develop a National Forest Reference Emission Level and/or a Forest Reference Level

Present work plan for how the reference level for deforestation, forest degradation (if desired), conservation, sustainable management of forest, and enhancement of carbon stocks will be developed. Include early ideas on a process for determining which approach and methods to use (e.g., forest cover change and GHG emissions based on historical trends, and/or projections into the future of historical trend data; combination of inventory and/or remote sensing, and/or GIS or modeling), major data requirements, and current capacity and capacity requirements. Assess linkages to components 2a (assessment of deforestation drivers), 2b (REDD-plus strategy activities), and 4 (monitoring system design).

(FCPF and UN-REDD recognize that key international policy decisions may affect this component, so a stepwise approach may be useful. This component states what early activities are proposed.)

Please provide the following information:

- **Summarize your proposed approach to establishing a baseline in the space below in less than five pages;**
- **Fill in the budget and funding request in Table 3 (the detailed budget and funding data go in Component 5);**
- **If necessary, attach a work program detailing how outcomes of this component will be achieved and/or the draft input to ToR for specific activities as Annex 3.**

Add your description here

Develop a National Emissions Reference Level and/or a Forest Reference Level

In Nicaragua the first mapping studies that indicate the land use categories were reported in 1957-61 with the publication of the topographic sheets of Nicaragua in 1967 developed by the National Geographic Institute in cooperation with the Inter-American Geodetic Institute and the Geographic Institute of Costa Rica. In his material we presents the categories of Use - rocky areas, ravines, edges of vegetation, forests, trees, bushes, orchards and plantations, herbaceous vegetation, salty lowlands, swamps and marshes. That same year the Soil Survey of the Pacific -1:20000, Central and Southeast of Nicaragua 1:50000, were published. In this study the soils were classified at the series level and the capability of soil use is determined with the appropriate category use.

In 1983, the topographic sheets are updated and the first forest coverage survey is published, developed by the Ministry of Agriculture and Livestock (MAG - Today MAGFOR) with the use categories used up until now in various publications and territorial studies. It is in this study is that, for the first

time in Nicaragua, the LANDSAT satellite images provided by the Italian company GEOMAP are used to carry out a study of the vegetation coverage of Nicaragua.

In 2000 the Ministry of Agriculture and Forestry published the current use map prepared using Landsat and Spot satellite remote sensing images with medium spatial resolution (28-30m), taking classification criteria that categorizes the vegetation and other cover types as a substitute for activity and that defined human activities, the coverage of vegetation and artificial constructions that cover the national territory, as land use. This study establishes the types of coverage on the specific use, and employs the concept of coverage as a synonym of use.

Review the "national circumstances" that can adjust the reference level proposed.

Once a review and comprehensive inventory of information generated by national institutions related to deforestation and forest/soil degradation was conducted, it was possible to do an methodological exercise to quantify and assess the processes of deforestation and forest degradation, incorporating the relevant elements related to changes in land use, socio-economic aspects and governance.

In a dialogue conducted with the ENDE-REDD+ decision making structures, it was determined that the level of coordination with the different sectors makes it possible to establish reference scenarios (scenarios of change in forest cover and emissions) at the national and sub-national levels, that supports the development processes of ENDE-REDD+.

The country has a spatial database and documentation that allows to carry out methodological exercises that characterize the drivers of deforestation and forest degradation, useful to identify and define the options to establish a monitoring system to measure, report and verify the effect of the ENDE-REDD+, GHGs emissions of and other benefits, as well as to monitor the causes of deforestation and forest degradation, and the variables relevant to the ENDE-REDD implementation.

The baseline database for forest coverage includes basic cartographic information, biophysical information, and climate and baseline information on carbon (biomass of woody vegetation produced by the National Forest Inventory).

The methods for calculating the forest biomass and its corresponding value of stored carbon are properly documented. With this data, estimates of the amount of biomass stored in trees were calculated using mathematical equations and models with estimates based on regression analysis of the variables obtained from forest inventories (e.g. diameter, height, etc.) and also has direct methods to estimate biomass from the function of volume and of wood density factors and biomass expansion factors (Brown 1997). It has been possible to obtain data from the application of the methods used for calculating carbon referred to Level 1 suggested by the IPCC (AFOLU - IPCC 2006) for tropical countries that apply the general allometric equations and parameter values by default (e.g. emission factors and change in stocks)

From this approach the biomass and carbon calculations were performed of the National Forest Inventory (NPI), overcoming the lack of specific coefficients for Nicaragua, using general values for tropical ecosystems similar to those of Nicaragua enabling the evaluation and calculation of the two types of forest present at the national level, forest areas and areas outside forests with woody species.

In Nicaragua this type of assessment has only been done in this Forest Inventory (2009), the published information available is in the annexes of the final document of the National Forest Inventory conducted between 2007 and 2008. This data was reviewed and listed in table 4, annexed in the summary documents of the status of the information and data on forest resources in Nicaragua.

In Nicaragua the information for monitoring of the forest cover is particularly important for monitoring and evaluating the National Forest Inventory. The monitoring and follow-up activity is linked to the National Forest Program, the Forest Management and Information System and other systems on the subject of forestry and natural resources. So that the information gathered by these agencies meets the needs of the forestry sector, both nationally and internationally, and it is established as the baseline for the country to start the monitoring process and strategic evaluation of the forestry sector in a systematic way. In this line, the baseline data generated from the National Forest Inventory 2007-2008 is available from the Department of National Forest Inventory (DINF) of the National Forestry Institute.

The DINF maintains a direct link with the INAFOR and state institutions authorities, regional governments, municipalities, universities and related NGOs, to work together to survey, process and analyze information. DINF also has a link to the National Forest Program and the National Forestry Commission (CONAFOR) agenda, as a collegial authority of the forestry sector and as a forest policy promoter, executed by INAFOR, which works to identify new information needs that can be processed with the first data monitoring of the inventory of forests and trees outside forests 2010-2014, and continue the dynamic and proactive INF process, in order to improve the quality of information that support the decisions made concerning the country's forests. Monitoring Information is presented in Table 6 of the Annex: Summary of status of the information and data on forest resources in Nicaragua.

Evaluate the feasibility of the country to implement potential approaches to develop a baseline (historical, projections)

Evaluated spatial and documented information and determined the feasibility of determining in general a reference level for ENDE-REDD+, based on a geo-spatial model with an approach that integrates the historical baseline and the projected baseline to obtain the spatial distribution of potential (eligible) areas for the ENDE-REDD mechanism.

With this method, the terms of multiple criteria for selecting ENDE-REDD+ potential areas are adjusted working with spatially explicit data and simulating the dynamic changes in the Nicaraguan landscapes (GEOMOD. F. Arnold), incorporating the two main components: The rate change of land use and the geographical locations

With this model, simulations will be carried out according to the weight related to the importance of the various forces driving change in use, adjusting the data and scale available in Nicaragua. The model combines the criteria and variables used in other methods (Change Model of Forest Areas of the FAO and Land Use and Carbon Sequestration Model-LUCS).

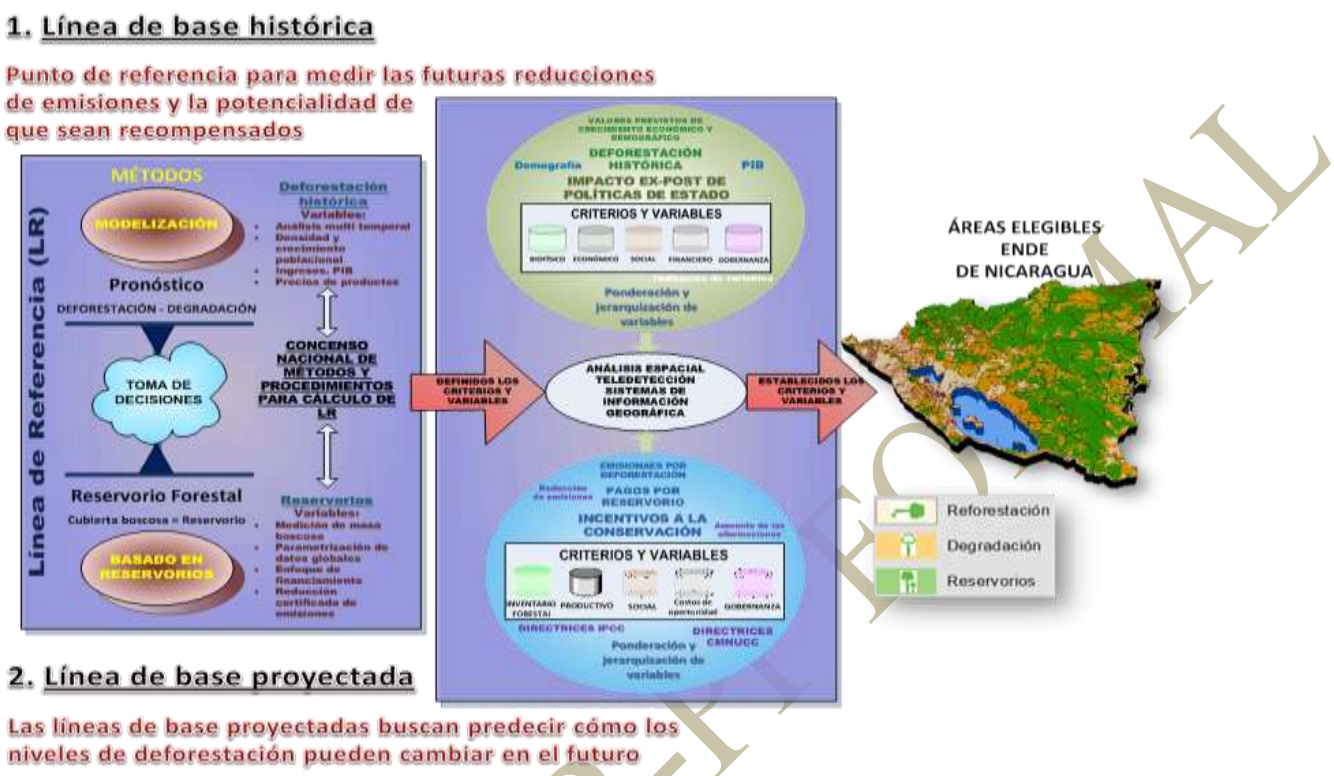


Figure 17. Multi-criteria model procedure

An important component of this model is the Multi-temporal analysis which consists in quantifying the loss or gain of the forested surfaces areas of urban or agricultural use, mainly those related to the deforestation process and related to studies of the global carbon cycle or driven by the search for the causes and consequences of climate change, biodiversity loss and landscape modeling (Lambin, 1997).

The resulting data from the Multi-temporal Analysis are an important aspect to develop the multi-criteria analysis model for the selection of eligible ENDE-REDD areas that tightly incorporate economic variables of deforestation and degradation, focusing primarily on data that explain the causes and spatial distribution of productive activities and their relation with the rest of the economy, allowing for a socio-economic interpretation of land use change, identifying the causes and agents of deforestation, decision parameters and fundamental political and economic instruments that intervene and interact in the overall process of deforestation and establish the routes of use change activities or gives adequate coverage of the conditions of the ENDE-REDD approach. So that the direct and underlying causes are incorporated and assessed spatially.

The methodological exercise involves the collection, review and preparation of the information needed to characterize each of the "drivers" involved in the processes of deforestation and degradation. Selection and weighting of the different variables describing land use, vegetation cover, forest dendrometric characteristics, socio economic and biophysical and environmental variables and across the country.

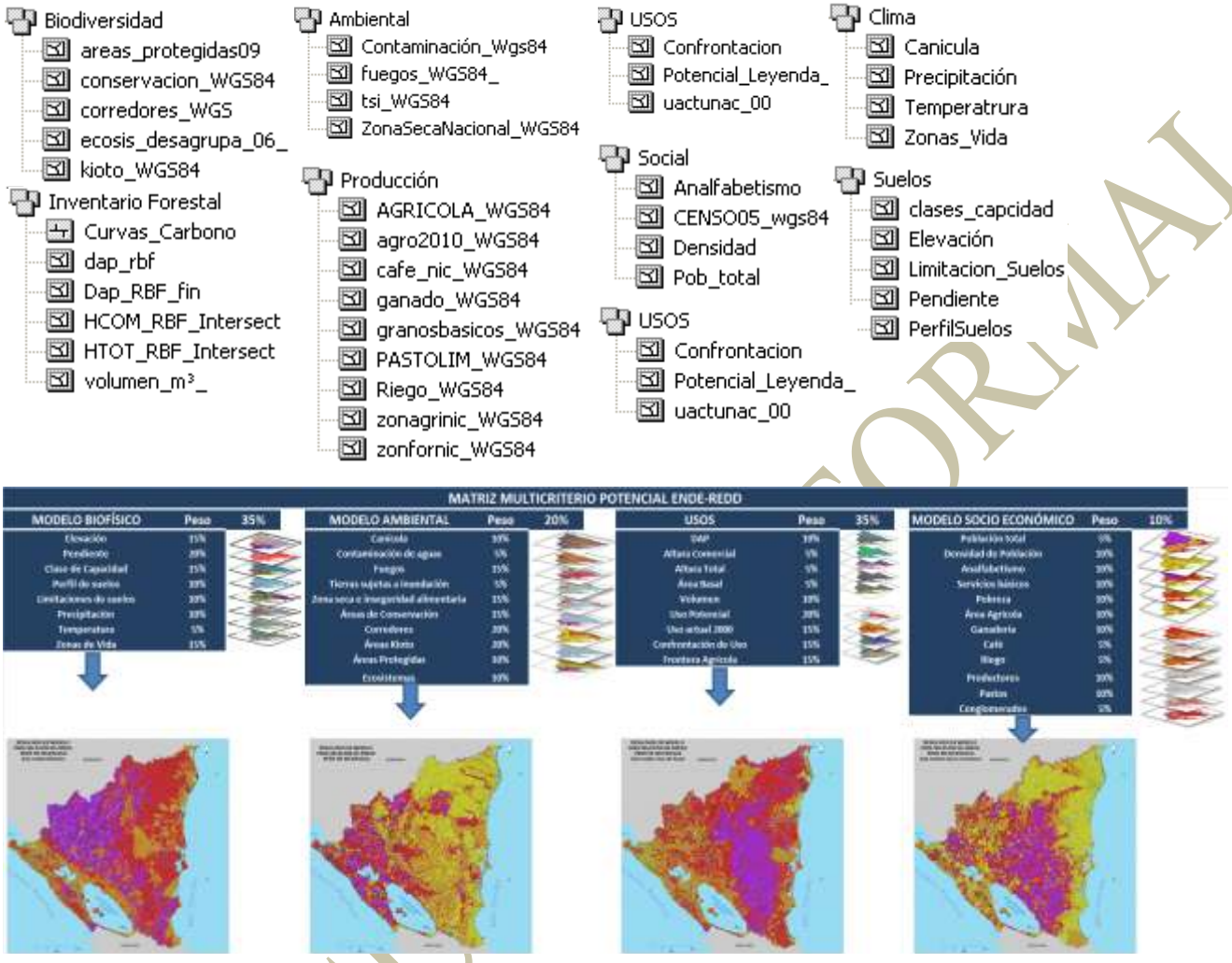


Figure 18. Multi-criteria model database (by the authors).

The analysis is structured in a multi-criteria matrix in which weights are assigned according to the degree of participation in the processes of deforestation and degradation. By applying statistical methods and geo-statistics and spatial analysis, it yielded a layer that combines the interaction of the values of environmental sensitivity and the potential implementation of the ENDE-REDD mechanism.

To determine the deforestation trend a Multi-temporal analysis was performed to determine the gain or loss of coverage, using satellite imagery of medium spatial resolution (30m). The period is from 2000 to 2009. The material used in the exercise corresponds to a restored Landsat mosaic image (Orthorectified Landsat Thematic Mapper Mosaics) for the entire national territory and produced by Earth Satellite Corporation. For 2009 we used a mosaic of ortho images restored Formosat 2 provided by with Taiwanese cooperation.

Multi-temporal analysis process

The Multi-temporal analysis consists in quantifying the loss or gain of the forested surfaces in areas of urban or agricultural use, mainly those related to the deforestation process and related to studies of the global carbon cycle or driven by the search for the causes and consequences of climate change, biodiversity loss and landscape modeling (Lambin, 1997).

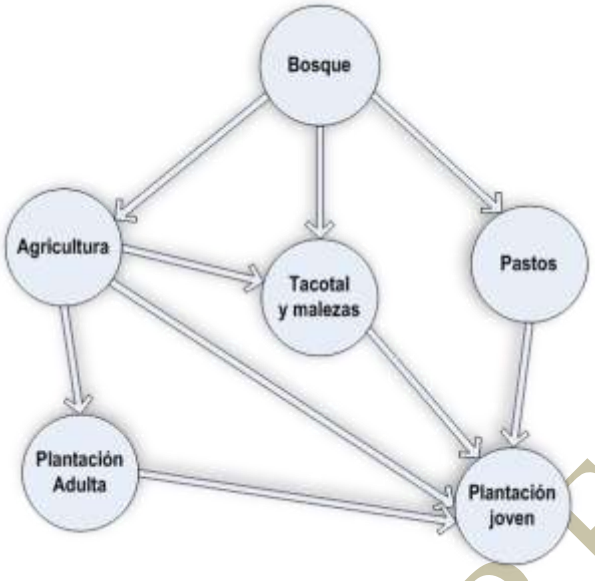


Figure 19. Interrelation of certain aspects of the Multi-temporal Analysis

To carry out the Multi-temporal analysis two satellite images were obtained that correspond to the year 2000 and 2009, both have the same spatial and resolution characteristics and the data acquisition of vegetation cover. They have full compatibility to carry out the land use change analysis using remote sensing techniques supported by computer programs to process and adjust the spectral scales and values that are used to recognize differences in vegetation.

The year 2000 image was acquired from the United States Geological Service webpage (USGS), which is an Orthorectified Landsat Thematic Mapper Mosaics at 30m prepared by the United States National Aeronautics and Space Administration (NASA) and modified by Earth Satellite Corporation (2002). The 2009 image is a mosaic of orthorectified multispectral images of 30m, prepared by the Agency for Cooperation of the Republic of China of Taiwan

Given the compatibility of the two images, the state of vegetation was determined by calculating the Normalized Difference Vegetation Index (NDVI). The vegetation index estimates the quantity, quality and growth of vegetation through combinations of spectral bands captured by a satellite sensor, i.e., express the spectral response (electromagnetic refraction) of a surface and the contribution of the vegetation in contrast with a higher spectral response of other landscape elements such as soil, water, air, etc. Since the NDVI value varies depending on soil use, the vegetation's phenological stage, water status and climatic environment of the territory of each area of Nicaragua.

It is important to note that the analysis carried out and its results represents indicative data which assists in locating and quantifying areas of degradation as input to the Multi-criteria Evaluation Model (MEM) which will be used to generally determine the ENDE-REDD+ potential focus areas in the country.

In the exercise, the method applied to calculate the NDVI was the Rouse et al. formula.

NDVI_43 = $\frac{TM4-TM3}{TM4+TM3}$ for the 2009 image and the formula proposed by Ray (1994): NDVI_47 = $\frac{TM4-TM7}{TM4+TM7}$ for the 2000 image in which the near infrared band (NIR) (TM4) and mid-infrared band (TM7) are used. From these formulas we obtained values from -1 to +1 and values higher than 0 are normalized for the types of vegetation/use and negative values for water, clouds, and bare soil. Vegetation values are distributed according to the resolution of the image to a maximum of 5 classes to group the related uses:

The index values represent in each image the values of vegetation coverage associated to soil use and are used for the comparison of the period between 2000 and 2009.

Rango		Clase
De	A	
-0.947	-0.622	Agua y Suelo Descubierto
-0.622	-0.478	Agua y Suelo Descubierto
-0.478	-0.372	Agua y Suelo Descubierto
-0.372	-0.296	Cultivos
-0.296	-0.228	Cultivos
-0.228	-0.159	Cultivos
-0.159	-0.091	Cultivos
-0.091	-0.023	Cultivos
-0.023	0.038	Pastos
0.038	0.106	Pastos
0.106	0.174	Pastos
0.174	0.242	Pastos
0.242	0.310	Tacotales
0.310	0.378	Bosque ralo
0.378	0.447	Bosque ralo
0.447	0.515	Bosque ralo
0.515	0.575	Bosque denso
0.575	0.636	Bosque denso
0.636	0.704	Bosque denso
0.704	0.985	Bosque denso

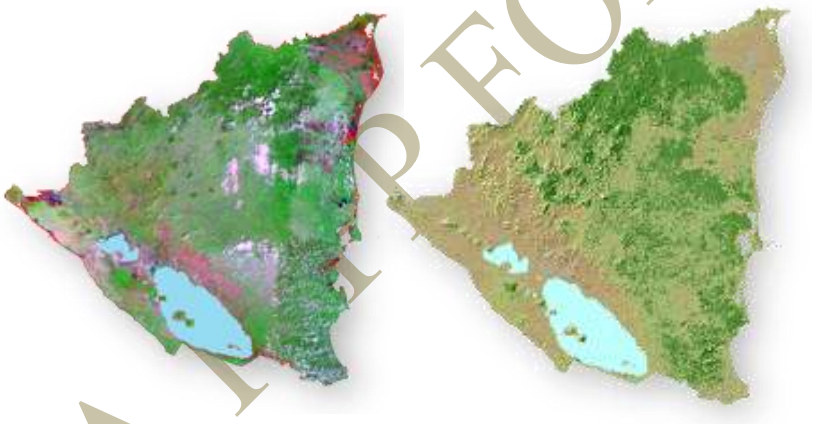


Figure 20. Index data obtained from the Normalized Vegetation Difference for each use category. Source: the Authors, 2012.

The classes or categories of use were defined making a generalization of the classes identified according to the categories of use published in the current MAGFOR use map for the year 2000 and grouped into 6 categories such as dense forest, pasture, secondary forests, sparse forests, water, bare soil and crops. The sampling points of Nicaragua's forest inventory were used to verify the accuracy of the vegetation classification

Grouping cover classes according to actual soil use data. Source: prepared by the authors with data provided by the Ministry of Agriculture and Forestry (MAGFOR).

The analysis of rates of change in land use was performed using the following equations used by the FAO (1995) and were compared with the simplified formula published by FAO in 1996:

$$Tasa = 1 - \left[1 - \frac{(S_1 - S_2)}{S_1}\right]^{1/n} \qquad Tasa = \left[\frac{S_2}{S_1}\right]^{1/n} - 1$$

Where t is the exchange rate, S1 and S2 are the areas of soil use in the initial period and the final period, respectively. The variable n is equal to the breadth of the evaluation period.

Land use in Nicaragua has experienced substantial changes. For the years 2000 and 2009, the change in forest areas turned out to be negative (-3%) mainly for the dense forest category. The situation is particularly critical in the case of sparse forests which also present a negative change (-8%). We observed a tendency towards increased losses in categories such as sparse forests as well as for dense forests for the coming years. In the case of the dense forest category although the slope of the terrain makes it difficult to access them for felling, it is necessary to improve the impact on local areas to avoid deforestation and degradation of these types of ecosystems through the implementation proposals of forest policies, in the national financial system and in the fiscal policy to discourages illegal felling and to promote the conservation of forests, as well as to establish an incentive program to encourage natural regeneration and reforestation of forests.

In the crops category the change is a gain (2%), this means that the areas devoted to agriculture have been increasing in the country since the year 2000. The category that gained the most surface in the period analyzed is pasture (5%), making extensive cattle ranching the activity that has most degraded forests throughout the country, and finally the use category of secondary forests has also recorded an increase although it is very small (only 1%) compared to the other categories that gained surface. In this sense, the agricultural areas also reflect a tendency to gradually increase their surface. This requires a technical intervention that can help transform extensive crop areas into diversified areas of vegetation coverage that protect soils and increase the livestock stocking rate per surface unit and improve the technical management of their areas to reduce the increase in acreage in this category.

According to the analysis and publications of the National Forest Inventory and national and international institutions (MAGFOR, GTZ), the main historical cause of degradation and deforestation in Nicaragua has been cattle breeding (Arnold, Franz., 2010), thus confirming the results of the exercise carried out for the period from the year 2000 to 2009.

This data represent the trends in ecosystem degradation in Nicaragua, and places extensive cattle ranching as the main driver of change and the one which most stimulates forest degradation. In numerical terms this represents 82% of the change surface. Agriculture contributes 7% of the degraded surface and the degradation of secondary forests due to extracting activities represents 11%.

There is a lack of cattle ranching regulation and technological modernization in the country in order to reduce the expansion of cattle raising. The cattle raising production units should be modernized to increase the livestock stocking units per acre. This is the key element to slow down the degradation occurred due to this activity.

In the case of agriculture, it is a possible to guide a productive development program that encourages the development of different products for food security and export of goods and products that can be inserted into the organic food market by implementing a traceability system of the food produced.

It is appropriate to develop a program to improve and mitigate firewood extraction through specific programs of improved stoves and establish energy plants in areas of high population density. These three elements of accelerated degradation (livestock, agriculture and firewood demand) must be comprehensively addressed with proposals for alliances and shared obligations among institutions, universities, production associations and communities committed to changing these scenarios of poverty and institutional neglect.

The data obtained in the previous analysis was found to have an important consistency. When compared with the rates of change in other decades (1980 and 1990), similar results to those obtained in the previously mentioned decades were obtained (FRA 2000).

Multi-criteria Analysis

Whereas the study of ENDE-REDD+ areas is part of the field of territorial analysis, this study presents a methodology based on the integration of Geographic Information Systems and Multi-criteria Evaluation Techniques (EMC) to obtain a reception capacity model to facilitate locating areas of deforestation and degradation that could potentially be ENDE-REDD+ approach implementation areas. Thus, building a raster and vector digital database which includes biophysical, environmental, socio-economic and land use variables linked to territorial planning, defining the surface where scenarios of degradation and deforestation can occur.

The evaluation was performed with a weighted linear addition application in problems of single objectives and multiple criteria, as in this case. From this analysis valuable information was generated the assisted the decision making process, particularly in land use definition problems, production activities and territorial management.

Methodology

The Analytic Hierarchy Method was used in the selection and prioritization of ENDE-REDD+ mechanism areas. The method consists in assigning indicative weights to groups of variables for the biophysical, environmental, social, productive, and soil use criteria, setting a weighting relative value against other variables to balance all the aspects related to degradation and deforestation.

As previously mentioned, an analytical hierarchy matrix was constructed beginning with the number of weighted variables for each criterion and comparing them with the importance of each variable on each other (aij). In this way we obtain the level of ENDE-REDD+ potential as the main element in accordance with the assignment of weights (wj) of each variable. The result is a normalized geographic layer which provides a quantitative measure of the consistency of value judgments between criteria.

In the implementation of the method, multiple GIS tools are used to capture, construct and manage a digital database of the entire territory to which the Multi-criteria Evaluation techniques are integrated to make the assessments.

The procedure is divided into three phases: The first has to do with gathering mapping data obtained in the information inventory, and previous studies to build a digital database with the necessary transformations of geographic formats to use geographic layers as spatial variables. The second phase includes the activities developed for the assessment of the variables included and consultation with the multidisciplinary team that issues their ratings. Finally, in the third phase, we obtain the preliminary priority model, to later use to consult with all the stakeholders and obtain the final selection model of areas with ENDE-REDD+ potential.

Starting with the geographic layer obtained as a result of the SIG operations, a set of tables have been generated that numerically describe the interactions of the different variables that integrate the model.

For the purposes of determining the areas that meet the objectives of the ENDE-REDD+ mechanism, it has been possible to identify and assess the size of areas being degraded by farming, ranching and extraction activities, in protected areas and the agricultural frontier.

According to the model, the ENDE-REDD+ potential identifies 4 levels of importance: Low, medium, high and very high. For purposes of selecting the highest priority area, the area corresponding to high and very high category was chosen.

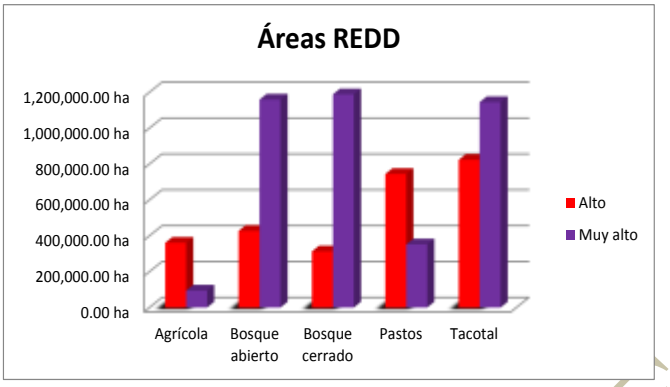


Figure 21. Graphical representation of areas with high and very high ENDE-REDD+ potential, according to soil type. Source: By the Authors, 2012.

In total, the ENDE-REDD+ potential occupies an area of 6,702,599.46 ha. It is distributed mainly in the areas of open broadleaf forests, closed forest and areas of secondary forests areas, forest formations of medium to high evergreen forests of warm and humid areas (18%), high evergreen forests areas that are moderately cool and wet (Rain Forest, 15.1%) and medium or high sub-evergreen Forests of moderately warm and humid areas (10.7%). The ENDE-REDD+ potential area represent 56% of the national territory.

Agriculture occupies 8% of the total surface of the ENDE-REDD+ area. The livestock area represents 16% of the total ENDE-REDD+ area and 9% of the national territory. Social indicators show that 70% of the indigenous territories in Nicaragua account for the highest levels of poverty, illiteracy, and low access to basic services .

It is important to point out that in protected areas Potential network is found mostly in areas with Nature Reserve categories, highlighting the area of BOSAWAS with a total of 558,271.61 ha with ENDE-REDD+ potential; Cerro Silva with 192,328.25 ha and Cerro Wawashang with 153,032.09 ha. In the category of Biosphere Reserve, the Indio-Maiz reserve has an area of 315,655.76 ha. In the category of Wildlife Refuge it is important to highlight the area of Los Guatuzos with 43,482.24 ha and the Río San Juan Wildlife Refuge with 44,517.43 ha.

In the National Parks, it is important to point out Cerro Saslaya with an ENDE-REDD+ area of 63,130.56 ha and the Archipelago of Zapatera with 12,497.09 ha. In the category of Genetic Resource Reserves, Yucul represents an important area with 5,713.70 ha and Apacunca with 1,573.19 ha. Finally, in the Natural Monument category, the Solentiname Archipelago has a significant portion of ENDE-REDD+ area with 17,950.04 ha.

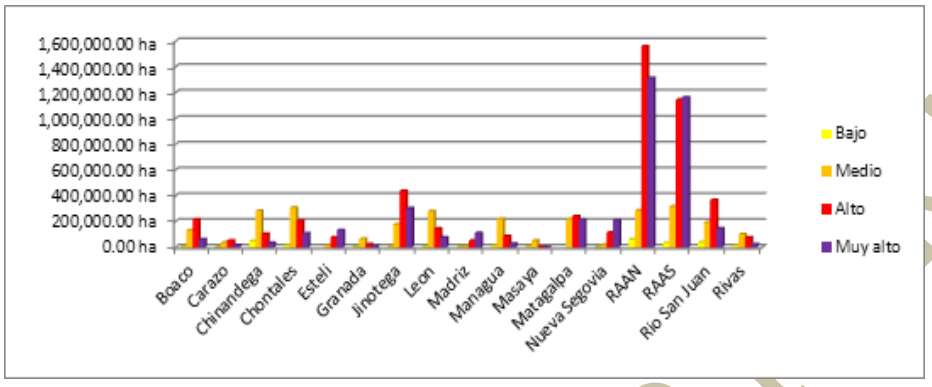


Figure 22. Graphical representation of areas with ENDE-REDD+ potential by departments. Source: the Authors, prepared with multi-criteria data, 2012.

The North Atlantic Autonomous Region (RAAN) has 89% of the area with ENDE-REDD+ potential (2, 875,274.38 ha), which represents 24% of national territory. It accounts for 8% of the entire national herd and 16% of the areas of pasture, the forest area covers 13% and 18% of the agricultural frontier area.

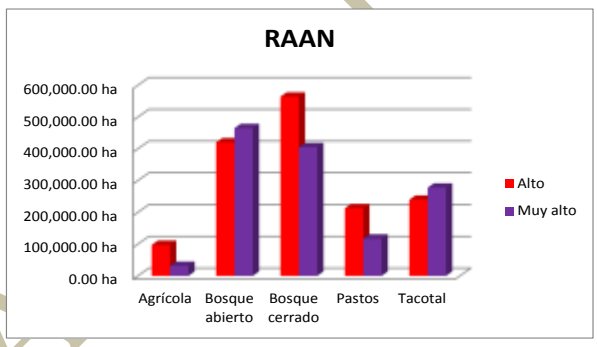


Figure 23. Areas with ENDE-REDD+ potential, RAAN. Source: the Authors, 2012.

Second in importance to the ENDE-REDD+ Mechanism is the South Atlantic Autonomous Region. It represents 2, 312,392.17 ha (19% of the national area with ENDE-REDD+ potential). 51% of the RAAS is occupied by the agricultural frontier, which represents 20% of the arable land in the country. CEI 7% (825,139.31 ha) of the total area corresponds to forest ecosystems. Cattle raising contributes 37% of the national herd and 24% of the grazing areas. This region accounts for 29% of indigenous territories and has very high rates of extreme poverty, illiteracy and lack of access to basic services.

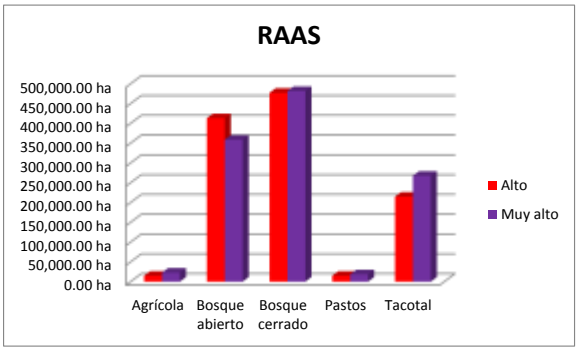


Figure 24. Areas with ENDE-REDD+ potential, RAAN. Source: the Authors, 2012.

In third place of importance of areas with ENDE-REDD+ potential is the Department of Jinotega, which has an area of 744,246.00 ha (6% of national area and 8% of the ENDE-REDD+ area). The Municipality of San Jose de Bocay should be highlighted. It contains 3% of the ENDE-REDD+ area of Nicaragua and 2% of the total national area.

Assess existing human and material resources of the country, as well as capability and capacity needs

Nicaragua has the elements necessary for the implementation of potential approaches in order to develop a baseline. It has both environmental and socioeconomic information which makes it possible to develop comprehensive models that provide a vision of the historic state of the items required by the ENDE-REDD+ mechanism, as well as to determine the possible trajectories and future results and their application at the National and Sub national level.

In Nicaragua the main achievements reached in the governance process have allowed for significant progress in communication and alliances with regional governments, which has allowed an active participation of the indigenous communities representatives in the country, and has promoted local participation and consultation of the different stakeholders involved and interested in the development of the forest sector in the country.

Some of the country's limiting factors in this respect are: Limited number of personnel trained inn information processing, technical and personnel constraints in district offices in the interior of the country, the lack updated equipment to support databases, among others.

In addition there is information that needs to be updated and more accurate as well as being validated with the appropriate institutions, and it is also necessary to strengthen the technological and institutional capabilities at the national level and improve procedures and recording systems, as well as filed surveying information, so that they are more accurate.

There is a low institutional budget, it is necessary to improve communication between the competent authorities, strengthen institutional management and forest governance, strengthen the technical capacities of the public and private sectors and of communities, and establish appropriate financial mechanisms for the forestry sector.

Develop a work plan that identifies the main steps and envisioned studies

Step 1. Construction of input variables for modeling

This includes the collection of primary and secondary sources to feed the database, review the variables of interest for analysis and quality control of data to be used.

The following types of input data will be taken into account:

1. Remote sensing applications that include forest cover analysis and the use of various tools of the Geographic Information Systems (SIG) for the best interpretation of the coverage of the country.

2. Field measurements, including the existing forest inventory data to date.

3. Biophysical variables, including weather and environmental variables (precipitation, temperature, among others). Includes information on downscaling of global climate models.

4. Anthropogenic variables (socio-economic and production), that include the identification and mapping of agents of deforestation and degradation.

5. Macroeconomic and development trends anticipated for Nicaragua. This includes variables such as expected GDP growth, birth rate or population growth, energy and transportation sector development, as well as trends in external and internal migrations.

Each of the variables to be included in the analysis will go through a parameterization process, which involves selecting the most appropriate values for the national reality.

Step 2. Building baselines and predictive models of changes in soil use change and CO_2 emissions

Predictive models of land use change will be built based on the country's expected development trend. For this, we will develop a multi-criteria analysis with spatial analysis techniques through GIS .

To make estimates of emissions and absorption of the baseline, the framework of the IPCC will be used as a base, the Good practice guide specifically for UTCUTS and AFOLU (2006), the guidelines of the Greenhouse Gas Inventory of the AFOLU sector (Agriculture, forestry and other land uses). Likewise, it is also expected that the general guidelines of the FCPF Guide will be followed, and a review of the methodologies suggested by GOFC-GOLD sourcebook in REDD will be carried out. The analysis will be made through the platform and GIS applications through the use of ArcGIS, ERDAS and IDRISI.

Step 3. Quantification of results (observed and trends)

The qualitative and quantitative results of the use changes observed during the years 2000 to 2009 and the trends of changes in use and emission reductions until 2030 will be presented in graphic, spatial and tabular form. The estimated data will be: changes in forest areas and other woodlands (in hectares per year), the trend of these changes for a 20 year horizon (change of area per year), CO_2 emissions and absorption for the period 2000 to 2009, and expected emissions/absorptions in the next 20 years.

Step 4. Evaluation of results at different scales

The results will be presented in different areas of national and regional consultation so key local stakeholders can assess the draft versions of the baseline study. At this stage the revision of the national scenario study and evaluation of the relevance and feasibility of national baselines will be planned.

Step 5. Displaying the Results

Results will be displayed though GIS, in spatial and tabular formats, digital maps with spatial projection will be provided, and transparent databases and estimates, from reliable sources, that are accurate and with acceptable margins of error to meet the standards of the IPCC and FCPF, will be provided.

Incorporates a spatial breakdown of changes in forest cover, using GIS or other techniques, production of carbon baseline maps, etc.

To perform the analysis of soil use change, 2 images were selected for two dates, 2000 and 2009. The year 2000 image was obtained through the webpage of the U.S. Geological Survey (USGS), the image for 2009 was prepared by the Agency for the Cooperation of the Republic of China (Taiwan). The state of vegetation was determined by calculating the Index Normalized Difference Vegetation Index (NDVI), then each type of vegetation was identified through the current use cover of MAGFOR 2000.

The rates of change in land use were determined for each class of vegetation, with particular interest in forest areas that changed; subsequently maps of soil use change were developed for the following departments: RAAN, RAAS, Jinotega, Matagalpa and San Juan River.

Try using historical data to develop the RL for the recent past in order to produce a realistic RL, approximately the last 10-15 years.

To estimate the rates of deforestation we have historical data from over 50 years. For the biophysical variables, socioeconomic anthropogenic and socio-economic data we will be have at minimum of 10 years of historical data. It is also good practice to limit the projections to about two or maybe three decades into the future.

For the evaluation of the baseline quantitative and qualitative results will be presented on the changes of use within the period 2000-2009 and the changes and the expected emissions will be projected until 2030. This data includes: changes in the areas of forests and other woodlands, the trend of these changes to a horizon of 20 years, CO_2 emissions and absorption for the period 2000 to 2009, and emission-absorption expected in 20 years.

Create a RL development around the main causes of deforestation and forest degradation and the other REDD-plus activities. This will enhance the links between the RL, the options of the REDD-plus and the MRV system design.

In Nicaragua, we will develop a national baseline to analyze the historical conditions and trends in the changes of land use as well as in emissions and absorption derived from forest conservation, increased forest reserves, the management of forests and other wooded land, and the processes of deforestation and forest degradation in the country.

The baseline will be coordinated by the institution that is the focal point for ENDE-REDD+ (MARENA) with support from INETER and INAFOR, by the implementing unit of ENDE-REDD+, and in coordination with other key institutions, and will be developed by national personnel with expertise in Geographic Information Systems (GIS) and Geodesy.

The construction of the national scenario will have technical inputs from research institutions, government institutions, NGOs and universities in order to develop a comprehensive methodology that includes multiple factors (direct and indirect) as well as social, economic and environmental factors involved in deforestation and forest degradation in the country.

Satellite imagery (Landsat, SPOT, and others) currently available in the years 1988, 1989, 1990, 1996, 1998, 1999, 2000, 2006, 2009 and 2010, as well as images acquired in the future will be used to estimate patterns of soil use change or historical changes.

The IPCC guidelines for the National Greenhouse Gas Inventory, the IPCC Good Practices Guide (2003) for the UTCUTS sector, industry guidelines for the AFOLU sector and the GOLFC-GOLD guide will be followed. This implies that activity data and factors suggested the IPCC to assess in a more

comprehensive way the emissions and absorptions of the forest ecosystems and their dynamics with other land uses will be included.

If there are significant differences between regions in the current and future development of deforestation and forest degradation drivers, then regional scenarios will be planned where needed.

Produce a realistic and defensible baseline that will be subject to public review as well as reviewed by colleagues

The qualitative and quantitative results of the baseline will be displayed through GIS, in graphical, spatial and tabular form. Transparent databases and estimates that meet the standards of the IPCC and FCPF will be created, to later be presented in different consultation spaces at the national and regional level, so that key stakeholders will be able to assess them. Additionally, the possibility of implementing baselines at the subnational level will be evaluated.

TABLE 34. Activity, Timeline and Estimated Budget Summary of the Baseline

Main Activity	Sub-activities	Estimated Cost (in thousands of US$)				
		2012	2013	2014	2015	Total
1. Information and existing capabilities assessment	1.1. A comprehensive review of all data gaps and existing capabilities	$5				**$5**
	1.2. Definition and review of key national concepts (including workshops with local stakeholders)	$25				**$25**
2. Capacity building to develop the baseline scenario for subsequent monitoring.	2.1. Equipment acquisition (computers, broadband, antenna, software, hardware, etc.) to improve existing capabilities at national and sub-national levels, and to improve registering forest inventory data.	$50	$50			**$100**
	2.2. Building national and regional capacities needed to support the development of baseline scenario and to monitor it in the short, medium and long term. Includes 2.2.1 - 2.2.3	$20	$20			**$40**
3. Selection of activity data and the level of accuracy	3.1. Selection of activity data	$5				**$5**
	3.2. Selection of the level of accuracy	$5				**$5**
	3.3. Improve the level of accuracy: Design and implement study of forest biomass estimates through estimates of national allometric equations representative of the national diversity.	$30	$40			**$70**
4. Determination of a standardized methodology to develop the baseline scenario.	4.1. Review and implementation of a standard methodology to define a baseline scenario and variables at a national level (See details of the proposal in section 3.3).	$30				**$30**

	4.2. Evaluation of the relevance and feasibility of sub-national scenarios (analysis of trends in deforestation and forest degradation to identify significant differences between sub-national and national scenarios). (Includes consultation with local stakeholders).	$20	$10			**$30**
	4.3. Review, adjustment and validation of the multi-temporal analysis methodology to adjust the national coverage map, specific to the development of baseline and 20 years projections. (Includes consultation with local stakeholders).	$10				**$10**
	4.4. Review, adjustment and validation of the multi-criteria analysis methodology, of the results of the emissions baseline without REDD+ measures, and the emission-absorption scenario with REDD+ actions, specific to the development of a baseline and projections to 20 years.	$20	$10			**$30**
5. Proposal of a final baseline	Consultation and final validation of the proposed scenarios: BAU with and without REDD+ measures (See details of the proposal in section 3.3).		$30			**$30**
Totals		**$220**	**$160**	**$0**	**$0**	**$380**
National Government						
FCPF		**$100**	**$100**	**$0**	**$0**	**$200**
UN-REDD Program (if applicable)						
Another Development Ally 1 (name)						
Another Development Ally 2 (name)						
Another Development Ally 3 (name)		$120	$60	$0	$0	$180

Component 4: Design Systems for National Forest Monitoring and Information on Safeguards

- Indicate why you are designing the monitoring system, for example, deforestation and degradation and other elements of 'REDD plus'.
- Propose how the system will face changes in forest land use, the evaluation of changes in the carbon inventory and which carbon reservoirs will be included
- Describe the criteria and processes to be used in the design of the monitoring system
- Evaluate the technological options and selection of the methods that will be used to measure, report and verify changes in carbon stocks.
- Encourage participation of local communities, NGOs and numerous agencies or government institutions, as well as the private sector to support the MRV system design and evaluate the scope and function in its implementation
- Countries should indicate in this component of the R-PP how they intend to conduct analytical activities and other activities to determine the way they address the shift in their MRV system.

Design of a comprehensive monitoring system

The design a national forest monitoring system in accordance with the scope of ENDE-REDD+ is an aspect that is still under construction in the national ENDE-REDD+ process. While there is consensus on what aspects should be monitored (changes in coverage, degradation, biodiversity, etc.), it is extremely difficult to coordinate inter-institutional and multidisciplinary efforts that are able to visualize the reach beyond that of the forest monitoring system and that take into account the potential benefits that the system could have in the medium and long term for Nicaragua.

It is therefore necessary, during the preparation phase of the ENDE-REDD+ strategy to analyze with key stakeholders (Levels 1, 2 and 3 of the ENDE platform-REDD+) various aspects to answer the following questions:

1) Is it feasible to use environmental, forest and socioeconomic variables that are currently collected systematically in various national and regional entities, and if so, what new variables and indicators should be incorporated?, 2) how can be the current monitoring initiatives be adjusted and improved to form a robust recording, control and verification system of our resources? 3) what should be the institutional arrangements necessary for the national monitoring system to be cost-efficient once the ENDE-REDD+ implementation activities in the country begin? And, 4) what is the best technical option, adapted to the national conditions, to define the forest monitoring system and its co-benefits? 5) what structural are substantial, intra-institutional and inter-institutional changes are necessary, to implement the national monitoring system at a regional and national level?

To discuss these issues within the different platforms of consultations at regional and national levels, it is necessary to have key information available which has been previously systematized so as to facilitate the discussion of the above mentioned questions, and of course to assist in the decision-making process. Therefore, part of efforts to develop this component 4, will be aimed at overcoming the existing information gaps, some of which have already been mentioned in other sections of this document as well as other aspects relevant to the monitoring issue, which are described below:

1. Diagnosis of strengths and gaps in information of flora and fauna, past, present and future monitoring plans.
2. Diagnosis of current capabilities, intra-institutional and coordination strengths and weaknesses to implement a comprehensive monitoring system that takes into account forest carbon, biodiversity and safeguards at the regional and national levels.
3. Diagnosis of strengths and weaknesses of the existing forest, environmental and social monitoring systems.
4. Lessons learned from projects of forest and agro-forestry incentives developed in the country to date.

Institutional and operational advances to facilitate forest monitoring[64]

Designing a national monitoring system in Nicaragua has seen significant progress in institutional and operational aspects. Some of the key aspects are described below:

- The national monitoring system with an ENDE-REDD+ focus fits well under the auspices of the National Forestry institute for the issues of forest and carbon monitoring. In the case of biodiversity and co-benefits it fits more closely under the mandate of the Ministry of Environment and Natural Resources (MARENA). For the design of a national recording, monitoring and verification of ENDE-REDD+ activities system, a comprehensive analysis to improve the efficiency of the current forestry and environmental data or statistics collection system will be carried out.
- To monitoring forest governance, forest governance and institutional performance indicators have been established, which are recorded annually since 2007. Some of these indicators are: number of active opportunities for citizen participation and direct democracy, e.g. formed GOFOS, COMUFOR, COREFOR, CODEFOR[65], how much of the budget is designated for forest districts (decentralization of functions), among others.
- To monitor the existence of Carbon stocks reserves on three main sources will be taken into account: 1) national forest inventory (INF) conducted between 2007-2008, 2) forest exploitation records, and 3) records on exported timber products.
- With respect to the INF, INAFOR they have started planning, with their own funds, the nationwide INF plot monitoring plan. In 2011, the re-sampling of some sampling units (UM) in the Pacific are of the country began. Currently Nicaragua receives funding from the World Forest Institute to resample 92 MUs located in the Pacific, RAAN, RAAS and Rio San Juan. These surveys will be conducted between 2012 and 2013, and will allow to estimate changes in density, volume and biomass in forest areas.
- With regard to forestry exploitation records, INAFOR plans to integrate a GIS database with all forest sites under active forest management plans. Other aspects to consider are the statistics of exported wood products in Nicaragua. For this, it has been suggested that the INAFOR and the Central Bank of Nicaragua jointly review the variables and indicators used by the BCN, to share variables and criteria that can be included in the ENDE-REDD+ SMRV:
- To record the increase in forest carbon stock reservoirs, increased control and registration of forest plantations established nationwide is expected. Key INAFOR instances for this are: SIRCOF, DIF,

[64] INAFOR 2009. Statistical Bulletin of the Forest Sector.
http://www.inafor.gob.ni/images/documentos/Boletin/Boletin_Forestal_Actualizado1.pdf
[65] GOFOS: Forest Governance Cabinet, COMUFOR: , COREFOR: , CODEFOR:

Ministry of Development; however, municipal and local associations play an important role in the municipalities and autonomous regions. Likewise, through the re-sampling of the INF UMs it will be possible to assess changes in volume densities and biomass in areas outside of forests.

- A positive aspect is that the instances that currently record or report forestry and environmental variables, indicators and statistics, including: INAFOR, MARENA, BCN, MAGFOR, INIDE, all have websites that usually updated with relative ease and at a low cost.

Components of the monitoring system

The monitoring of forests in the ENDE-REDD+ is proposed in three components, namely: i) biophysical, which involves the coverage analysis and the rates of change; ii) biodiversity, which includes benefits and co-benefits of the forest and iii) safeguards, including social, environmental and of the rights of indigenous and Afro-descendant peoples.

i) Biophysical component

In this option the existence of carbon stocks (forest density) and the deforestation rates (change in coverage) should be calculated every two years (as decided by the SBSTA, COP17). This would mean we need to maintain updated field data, which would be registered under the ENDE-REDD+ national forest monitoring system. To evaluate this option, both field sampling and satellite images analysis technology will be taken into account, trying to develop the most cost-efficient option.

Reducing emissions and the deforestation rates at a national level would be estimated using the differences in carbon stocks and forest cover, and between the baseline values (base year = 0) and the estimates in each new measurement. For this option, it is necessary to estimate the annual deforestation rate or the rate of forest recovery in a given period.

The new INF sampling during 2012 and 2013 (both the UMs previously measured as well as the establishment of new plots), will be taken into account to obtain more precise estimates of changes in coverage, density, volume, and biomass change, and to assess the health of the different types of forest and woody vegetation in areas outside forests, according to the samples. This new in situ data will allow for an overview of the changes in coverage during the period 2008 - 2012 (4 years), as well as making it possible to re-calculate the ratio estimators and sampling errors of the INF.

The combination of satellite remote sensing, in situ (field) measurements, and simulation models will also be taken into account. This combination of technologies and methods has proven to be a powerful tool to develop robust data about the current state of the ecosystems and of the dynamic trends in the terrestrial biosphere, which includes forest resources, at a national, sub-national and local level (Turner *et al.* 2004, Rahman 2007[66]). The quality of this monitoring system will be depending on the availability of information and the ultimate goal of this type of analysis. All these aspects will be evaluated during the construction/analysis of the national monitoring system workshops.

ii) Biodiversity Component

For the biodiversity component, ideally variables of forest biodiversity and wildlife should be taken into account. However, this represents a real challenge for the country, because there are many specific

[66] Rahman M. M. 2007. Tropical Deforestation and Carbon Emission: Estimations Based on Remote Sensing. Dresden University of Technology, Germany. 239 p.

inventories of wild flora and fauna taken from various parts of the country, but there is no systematization of the sampled data (annual, biennial, etc.).

For this reason, we proposed that, during the national workshops, specific working groups be conformed to address the topic of biodiversity monitoring within ENDE-REDD+. The variables and indicators that will integrate the monitoring system should be discussed, as well as the feasibility of sampling data in a systematic way.

iii) The social, environmental and rights of indigenous peoples and Afro-descendants safeguards component defined in component 2d.

Forest Monitoring at a sub-national level

Currently the RPP proposes a monitoring system that includes dialogue activities, local consultations and feasibility studies necessary to explore the preparation of the sub-national monitoring system, mainly for the following circumstances:

- The dynamics of the causes of deforestation and degradation can significantly vary when comparing the national scenario with a more local or regional scale.
- The RPP proposes to select an initial sub-national phase, 2 regions in which they should assess the feasibility of the monitoring sub-national system. These are: The North Atlantic Autonomous Region (RAAN), and the South Atlantic Autonomous Region (RAAS). In a second phase it is expected to include Rio San Juan (RSJ), Jinotega and Nueva Segovia (NS). These sites were selected because they are the regions where the highest forest coverage of the country is located.
- The Caribbean coast is an area with a high occurrence of natural phenomena like hurricanes and storms that affect the development of ecosystems, mainly forests, Therefore climatic variables should be considered with greater weight in this area of the country, so that in order to internalize the inherent climate risks for different areas of the country.
- Some studies of land use change indicate that the impact of the causes that drive the historical changes in land use vary from one region to another (e.g. between RAAN and RAAS). For this reason, it is necessary to evaluate the existing information and generate new analysis that will allow making decisions regarding the definition of sub-national settings.
- During 2012-2013 we expect to analyze both the relevance of a national stage, as well as sub-national scenarios, to estimate the changes in coverage and to define the drivers of deforestation and degradation in a detailed manner for each region of the country.

Collaboration with local and international organizations

Nicaragua's government plans to make strategic alliances with various countries and organizations to ensure some of the inputs necessary for the development of the 'baseline' study for the implementation and monitoring of this baseline at a national level. Some strategic alliances that are suggested are:

a) Government of Taiwan Currently has a cooperation agreement with Nicaragua to provide high resolution satellite images for some protected areas with high priority for the National System of Protected Areas (SINAP). Added to this, Taiwan donated to Nicaragua a high resolution mosaic image of the entire country, and this donation could potentially be obtained with a frequency of at least every four years.

b) The U.S. government: Potentially can work with Nicaragua to provide satellite imagery at a lower cost or by way of donation.

c) German Cooperation (GIZ): A partner and key contributor to the improvement process in the forestry sector in the country (forest governance, chain of custody, forest certification, among other topics). GIZ is the entity that has financed the preparation of ENDE-REDD+ readiness plan (RPP). There is the possibility of technical and financial support in some studies or activities necessary for the preparation of the Readiness phase of the country under the framework of REDD CCAD-GIZ program, and in this regional program, GIZ will be the coordinator of some of the activities to be developed in Nicaragua.

   The Sustainable Management of Natural Resources and Development of Business Capacities (MASRENACE) is part of GIZ, that part of their support has benefited the political management (governance) and as a driver or facilitator of the ENDE-REDD+ topic in the national structures but mainly in the Caribbean coast, which is its principal place of influence.

d) UNDP: Is a belligerent partner of MARENA on adaptation and mitigation to climate change topics. It is therefore a potential partner who can finance some activities that are complementary to improve the information available, the baseline and the capabilities to implement an ENDE-REDD+ mechanism in the future. Currently, UNDP is financing most of the projects developed on mitigation and climate change adaptation and that are coordinated by the General Management on Climate Change MARENA.

e) Other organizations/agencies that currently collaborate on various national environmental and forestry initiatives: FAO, Denmark, AECI, SDC, among others with an interest in joining the process of drafting the ENDE-REDD+ strategy. It is likely that with the support of some of these instances it will be possible to finance part of the activities required to improve the capabilities, quality of available information and the different processes for ENDE-REDD+.

f) A strategic alliance of the Government of Nicaragua through MARENA and INAFOR will be struck with the World Forest Institute (WFW for its acronym in German)[67]. Level I of the ENDE-REDD+ platform approved this alliance last May, so these bodies are expected to sign a collaborative agreement between the parties, known as Memorandum of Understanding (MoU). This agreement or MoU aims to carry out joint research activities on issues of reducing deforestation and forest degradation (that is ENDE-REDD+), applied research relating to forestry in the tropics and generate contributions towards the development of the ENDE-REDD+ .

   Research proposals that will be undertaken during 2012-2013 will require scientific and technical team, both from the WFW Institute as well as from national authorities. The work topics are related to the condition of forests in the RAAN, therefore MARENA, INAFOR and URACCAN are considered the main local partners, leaving open the possibility to include, as needed, the participation of other national regional and/or territorial entities.

   The research proposals are: 1) develop an adaptive monitoring system for the assessment of forest degradation, 2) develop a support system for decision making in the design of tailored

[67] The IFM through research and consultations contributes to the conservation and development of the world's forests. Its objective is to create concepts and strategies for the sustainable management of forests by the entire world, in terms of macro-ecologic, economic, social and political conditions. The WFW is a member of the Johann Heinrich von Thünen-Institut Ministry (VTI)[67] (www.vti.bund.de/wfw). The WFW institute has developed technical scientific research and collaboration on REDD topics in countries such as Brazil and Madagascar. Currently it is broadening its research to include REDD+ in Nicaragua.

incentives and alternative plans for land use, 3) potential for reducing deforestation and forest degradation through scenarios of land use changes.

Funding for activities will be provided by the WFW, for example: workshops, interviews and field inventories, which will be coordinated with local, territorial and national authorities. Likewise, the guidelines of the principles of free, prior and informed consent will be followed, prior to carrying out any development activities in indigenous territories in Nicaragua. The key entities to carry out these activities in the country are: URACCAN and INAFOR. URACCAN will be the main actor and the coordinator of the studies that will be developed in the RAAN, and INAFOR will be the key entity for the development of forest inventory sampling nationwide.

Lines of Action of the current monitoring system

1) Develop dialogue and coordination with key stakeholders to define the substantive features of the monitoring system.

2) Designing the ENDE-REDD+ monitoring system with feedback through dialogue and consultation at the subnational and local level.

3) Develop a national consultation of the forests, biodiversity, co-benefits of forest and safeguards monitoring system (SMBBCS)

4) Adjust the roles and the general framework competence at the different national, subnational and local levels of ENDE-REDD+.

5) Develop a pilot multipurpose, multi-level monitoring project, preferably at the sub-national level.

6) Develop an assessment and systematization of the pilot experience.

7) Acquire equipment, improve technological capabilities and establish a technological platform for the forest monitoring system.

8) Check and ensure that the monitoring system not only measures the present and future changes in carbon *stocks* and emissions of CO_2, but also the co-benefits of the forest and the ecosystem services in the social, the social, economic and environmental impacts that the ENDE-REDD+ measures will have in the short, medium and long term for the local and indigenous communities in the country.

TABLE 35: Action lines of the monitoring system

Lines of Action of the current monitoring system	Activities	Time Period		
		2012	2013	2014
1. Develop a dialogue and coordination of key stakeholders				
2. Design the ENDE-REDD+ monitoring system obtained from feedback through dialogue and consultations.				
3. Develop a national consultation of the SMBBCS monitoring system				
4. Adjust roles, competencies				
5. Procure equipment, improve capabilities and technology				
6. Develop a monitoring pilot project				

7. Develop a monitoring pilot project				
8. Develop systematization				
9. Verify and ensure that the monitoring system is comprehensive				

Identified limitations

The main technical constraints to implement ENDE-REDD+ activities are due to the lack of a systematic technical training according to the new needs of national entities, due in part to a lack of funding. With the current national budget of public entities it is difficult to cover all the training and technological upgrading needs with their own funds or even with the national budget.

National capabilities for the analysis of coverage, satellite images, multi temporal analysis, among other procedures and activities based on the Geographic Information Systems (GIS) are still limited. Few have an excellent technical basic knowledge of these tools, despite the efforts to technical training team that has been developed in various institutions of the country with funding from international cooperation. Additionally, most state agencies have some minimum equipment to carry out their duties, but it is outdated in terms of hardware or software, or both, or do not have the necessary software for these tasks.

On the other hand, local and regional capabilities are even more limited, especially in indigenous and Afro-descendant communities. However, ahead of to this ENDE-REDD+ process several initiatives have helped train the Caribbean communities on issues of climate change, risk management, adaptation to climate change and the role of indigenous women in facing climate change[68]. We recognizes the successful efforts of organizations like URACCAN, Masagni, CADPI, among others, that have contributed that these issues are addressed within the indigenous and African descent communities, and that each time they have significantly reduced the gaps in technical capabilities in the Caribbean zone of Nicaragua.

Main activities to develop

4..1 Equipment and infrastructure

4.2 Technical training

4.3 Technical assistance (experts)

4.4 Development of a comprehensive monitoring program focused on the categories and attributes for which the baselines were set (Chapter 3) including governance factors, co-benefits and safeguards, at the regional, territorial, local level

4.5 Implementation of the pilot monitoring program in priority areas (test and adjustments)

4.6 Establish a carbon accounting system integrated into the national (regional)GHG reporting systems and the specific needs of MRV for REDD+

4.7 Development of an independent system of verification and certification according to the credibility requirements established at a national and international level

[68] Tebtebba Foundation. 2011. Indigenous Women, Climate Change and Forests. 314 p.

4.8 Improve the monitoring capabilities of national entities, such as local groups (indigenous and rural communities), for monitoring carbon as well as biodiversity, ecosystem services, environmental and socioeconomic assessments (SESA and safeguards)

Table 36: Activity, Timeline and Budget Summary of Estimated Monitoring

Main Activity	Estimated Cost (in thousands of US$)				
	2012	2013	2014	2015	Total
4.1. Equipment and infrastructure	$180.00	$140.00	$120.00	$0.00	**$440**
4.2. Technical training	$45.00	$30.00	$30.00	$0.00	**$105**
4.3 Technical Advice (specialists)	$30.00	$30.00	$20.00	$20.00	**$100**
4.4 Development of a comprehensive monitoring program focused on the categories and attributes for which baselines were set (Chapter 3) including governance factors, co-benefits and safeguards, at the regional, territorial, local level	$60.00	$70.00	$20.00	$10.00	**$160**
4.5 Pilot application of the monitoring program in priority areas (tests and adjustments)			$270.00	$270.00	**$540**
4.6. Establish a carbon accounting system integrated into the GHG national reporting systems (regional)and the specific needs of MRV for REDD+		$30.00	$20.00	$100.00	**$150**
4.7 Development of an independent verification and certification system according to the credibility requirements established at a national and international level.			$15.00	$45.00	**$60**
4.8 Improve the monitoring capabilities of national authorities, as well as of local groups (indigenous and rural communities), for monitoring carbon, biodiversity, ecosystem services, and environmental and socioeconomic assessments (SESA and safeguards)		$55.00	$55.00	$55.00	**$165**
Totals	**$315**	**$355**	**$550**	**$500**	**$1,720**
National Government					**$0**
FCPF	**$100**	**$210**	**$0**	**$0**	**$310**
UN-REDD Program (if applicable)					**$0**
MASRENACE Program phase III					**$0**
Regional program REDD-CCAD-GIZ					**$0**
Another Development Ally 3 (name)	**$215**	**$145**	**$550**	**$500**	**$1,410**

4a National Forest Monitoring System

Standard 4a the R-PP text needs to meet for this component:
National Forest Monitoring System

The R-PP provides a proposal and work plan for the initial design, on a stepwise basis, of an integrated monitoring system of measurement, reporting and verification of changes in deforestation and/or forest degradation, and forest enhancement activities. The system design should include early ideas on enhancing country capability (either within an integrated system, or in coordinated activities) to monitor emissions reductions and enhancement of forest carbon stocks, and to assess the impacts of the REDD-plus strategy in the forest sector.

The R-PP should describe major data requirements, capacity requirements, how transparency of the monitoring system and data will be addressed, early ideas on which methods to use, and how the system would engage participatory approaches to monitoring by forest–dependent indigenous peoples and other forest dwellers. The R-PP should also address the potential for independent monitoring and review, involving civil society and other stakeholders, and how findings would be fed back to improve REDD-plus implementation. The proposal should present early ideas on how the system could evolve into a mature REDD-plus monitoring system with the full set of capabilities.

(FCPF and UN-REDD recognize that key international policy decisions may affect this component, so a staged approach may be useful. The R-PP states what early activities are proposed.)

Please provide the following information:

- **Summarize your proposed approach to designing the monitoring system in the space below in less than five pages;**
- **Fill in the budget and funding request in Table 4-2 (the detailed budget and funding data go in Component 5);**
- **If necessary, provide a more detailed plan and/or draft input to ToR for the necessary activities as Annex 4.**

Add your description here:

This section of absorption and removals responds to the greenhouse gases inventory system in the framework of national communications and a nationwide strategy for carbon neutrality. It will later be determined if it is necessary to develop this section. However, these activities will be related to the conservation of forests, increasing carbon stocks, forest restoration, sustainable management of forests, safeguards and impacts of ENDE-REDD+ in social, economic and environmental issues ensuring the compliance of the ENDE-REDD+ as well as other strategies in place in the country. This system will be consistent with current needs to assess the implementation of ENDE-REDD+, according to the guidelines, institutional arrangements and national and local priorities in the country, which have been highlighted in previous sections of this document.

Structure of the Forests Monitoring System (SMB)

To establish an adequate monitoring system structure improvements and adjustments should be made in those instances where there are registered data or statistics of national interest, with the aim that the monitoring plan is consistent with the five components that comprise the ENDE -REDD+ proposal.

Currently the main forest variables are recorded through systems developed from the INAFOR: the Department of Forest Inventory (DIF), the Forest registry and control Information System (SIRCOF), the Department of Forestry Development, and the Department of Forest Protection. They are collected in MARENA through the national Environmental Information System (NARS) and their respective regional nodes that cover the sub-national scheme. In addition, statistics from CENAGRO, Central Bank and INIDE.

There is a low institutional budget to meet all these functions efficiently, therefor it is necessary to improve communication between these bodies, improve procedures, recording systems and data logging as well as the joint survey of field information, so that they are useful and in order to keep good records, properly control and monitor the territories forest resources, and generally to improve the national system of national forest and environmental statistics.

The process of systematization and updating of the information is still emerging, for example, in regards to the forest coverage maps, it has not yet been possible to institutionalize the methodology and periodic updating of forest cover; other variables have a reference value for a specific year. For this reason it is proposed that the structure of a forest and co-benefits monitoring system take into account the existing institutional platform and take advantage of the interaction between the country's institutions.

Figure 25. Preliminary Institutional structure proposed for the ENDE-REDD+ Monitoring System

General priority activities

The priority activities for the design of the monitoring system are:

Technical Advice

The national and international technical assistance will be needed to address thematic and methodological issues that are complex to national entities and when there aren't national capabilities to develop the requirements of the various activities required to define an appropriate SMB in the country.

Key issues to be considered for counseling are: the development of SESA and of the safeguards, estimates of biomass and carbon, construction of environmental, forestry, social, and economic indicators to assess the impacts of ENDE-REDD+ measures at the national, subnational and local levels; safeguard compliance indicators; implementation of methodologies for prior, free and informed consent, among other topics.

The lines of action to monitor removals and elimination include the following sub-activities:

i. Strengthen the system of greenhouse gas inventory of Nicaragua and national communications to the UNFCCC.

ii. Strengthen the capacity of MARENA in accordance to the preparation of national communications and the greenhouse gases inventory.

iii. Establish monitoring and field verification programs of the implementation of ENDE-REDD+ measures at the regional, territorial and local levels.

iv. Development of monitoring plans for priority areas (pilot areas).

v. Developing a plan for improving organizational and management capabilities for key institutions and stakeholders.

Establish a carbon accounting system integrated into the national (and/or regional) GHG reporting systems in the context of national communications and their link to ENDE REDD+. This involves the following sub-activities: i) analysis of the current GHG reporting system with its gaps in relation to carbon accounting, ii) definition of the criteria and protocols necessary to include ENDE-REDD+ in the GHG reporting system iii) design of an integrated CO_2 accounting system, based on the results of analysis of the current system and the criteria and protocols developed (including database options, software, etc.), iv) development and implementation of the system in relevant institutions (including training, databases, software).

TABLE 37. Lines of action needed to design a monitoring system that takes into account carbon removal and elimination.

Action Lines	Proposed Activities	Period		
		2012	2013	2014
i. Strengthen the system of greenhouse gas inventory (INGEI) of Nicaragua and national communications to the UNFCCC.	Develop a standard method adhered to the guidelines of the IPCC. Diagnose the strengths and weaknesses for the development of the INGEI and its link with the ENDE-REDD+			
ii. Strengthen the capacities of MARENA according to the preparation of national communications and the greenhouse gases inventories.	Training plan to strengthen the processes of the development of the INGEI and of national communications. Development of training workshops			

iii. Establishment of monitoring programs and field verification of the implementation of ENDE-REDD+ measures at the regional, territorial and local levels.	Preparation monitoring plan proposal for a pilot area. Implementation of a pilot monitoring system at the local and community levels			
iv. Development of monitoring plans for priority areas (pilot areas).	Design a monitoring system for prioritized pilot areas at a national level			
v. Development of a plan to improve organizational and management capabilities for institutions and key stakeholders.	Training plan to strengthen authorities involved in the monitoring system			

TABLE 38. Activity, Timeline and Budget Summary of Monitoring 4a

Main Activity	Estimated Cost (in thousands of US$)				
	2012	2013	2014	2015	Total
Activities of 4a.					
4a.1. Align criteria and variables, and standardize processes for the collection of data for coverage and carbon estimates	$20				**$20**
4a.2. Strengthen and ensure access to a database on forest resources, RRNN and their changes (species inventories, exploitation, conservation, forest fires, among others).	$9	$20			**$29**
4a.3. Generation of the forest map of Nicaragua that corresponds with the INF categories (Levels of classification of forest and other woodlands).	$45				**$45**
4a.4. Generation of forest inventory information with greater intensity of sampling and prioritizing potential pilot areas.	$50				**$50**
Totals	**$124**	**$20**	**$0**	**$0**	**$144**
National Government					**$0**
FCPF	**$80**	**$20**	**$0**	**$0**	**$100**
UN-REDD Program (if applicable)					**$0**
MASRENACE Program phase III					**$0**
Regional program REDD-CCAD-GIZ					**$0**
Another Development Ally 3 (name)	$44	$0	$0	$0	$44

4b. Designing an Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards

Standard 4b the R-PP text needs to meet for this component: Designing an Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards:

The R-PP provides a proposal for the initial design and a workplan, including early ideas on capability (either within an integrated system, or in coordinated activities) for an integrated monitoring system that includes addressing other multiple benefits, impacts, and governance. Such benefits may include, rural livelihoods enhancement, conservation of biodiversity, and/or key governance factors directly pertinent to REDD-plus implementation in the country.

(FCPF and UN-REDD recognize that key international policy decisions may affect this component, so a staged approach may be useful. The R-PP states what early activities are proposed.)

Please provide the following information:

- **Summarize your proposed approach to designing the monitoring system in the space below in less than five pages;**
- **Fill in the budget and funding request in Table 4-1 (the detailed budget and funding data go in Component 5);**
- **If necessary, provide a more detailed plan and/or draft input to ToR for the necessary activities as Annex 4.**

Add your description here:

Design of an Information System for Multiple Benefits, Other Impacts, Governance and Safeguards

For biodiversity monitoring the GLOBIO3-PROMEBIO model will be used, which allows to monitor indicators of the state of biodiversity in the context of the biological diversity convention. This model implemented by CCAD, of the Regional Institute for biodiversity IRBIO, in El Zamorano Pan-American School, Honduras. This model's hypothesis is based on the existence of factors that are causing biodiversity loss: changes inland use, roads, agricultural activities that are lacking good practices and forest fires. Furthermore, this methodology has the ability to adapt to different situations and variable aggregation according to each case.

This tool consists of five main criteria: i) effects of land use, ii) distance from roads (infrastructure), iii) forest fragmentation, iv) hot spots (fires) and v) the mean abundance indicator of species by municipalities, protected areas and indigenous territories areas.

Complementary to this method, MARENA-UNDP, with support from the Joint Environmental Window Program and the participation URACCAN University, has initiated a monitoring system with local youth of the indigenous communities of the RAAN, in the process of validation, which seeks to incorporate community youth into the variables monitoring system, from a community perspective.

Social, environmental and indigenous safeguards system

For monitoring and evaluation of social and environmental considerations and compliance with the safeguards considered throughout the ENDE-REDD+ process through the SESA methodology and the Social and Environmental Management Framework, existing standards on social and environmental aspects will be analyzed at a national and international level, to identify the group of principles, criteria and indicators that are compatible with the context and national reality. Having defined the preliminary list of criteria and indicators, these will be socialized in the run up to national SESA readiness workshop. In this period criteria that may be applied and adapted to a participatory social monitoring system should be taken into account, where different stakeholders , especially indigenous and rural communities can assess and monitor from their territories the development of the ENDE-REDD+ strategy, from the social and environmental perspective. See annex 4b for the preliminary list of principles, criteria and indicators that could be adapted to the national context.

TABLE 39. Activities, Timeline and Budget Summary of multiple benefits, other impacts and governance 4b

Main Activity	Estimated Cost (in thousands of US$)				
	2012	2013	2014	2015	Total
Activities of 4b.					
4b.1. Align criteria and variables, and standardize processes for the collection of data for biodiversity estimates (flora and fauna) and ecosystem services.	$15				**$15**
4b.2. Plan for monitoring socioeconomic and environmental impacts	$20	$20			**$40**
4B.3. Monitoring plan of governance elements during the implementation of ENDE	$20	$20			**$40**
Totals	**$55**	**$40**	**$0**	**$0**	**$95**
National Government					**$0**
FCPF	**$40**	**$40**	**$0**	**$0**	**$80**
UN-REDD Program (if applicable)					**$0**
MASRENACE Program phase III					**$0**
Regional program REDD-CCAD-GIZ					**$0**
Another Development Ally 3 (name)	$15	$0	$0	$0	$15

Component 5: Schedule and Budget

Standard 5 the R-PP text needs to meet for this component:
Completeness of information and resource requirements

The R-PP proposes a full suite of activities to achieve REDD-plus readiness, and identifies capacity building and financial resources needed to accomplish these activities. A budget and schedule for funding and technical support requested from the FCPF and/or UN-REDD, as well as from other international sources (e.g., bilateral assistance), are summarized by year and by potential donor. The information presented reflects the priorities in the R-PP, and is sufficient to meet the costs associated with REDD-plus readiness activities identified in the R-PP. Any gaps in funding, or sources of funding, are clearly noted.

Schedule and Budget

Nicaragua's readiness phase proposal reaches a total of US$ 10.3 million over 4 years, of which US$ 3.6 million has been allocated to the Forest Carbon Partnership Facility (FCPF) and US $6.7 million represents the gap to carry out and implement the proposed activities in each component. In this regard, the Government of Nicaragua will petition international cooperation and regional financial resources to cover the gap.

39% of the budget represents the component of strategic options (2b), where priority is given to aspects of governance, strengthening capacity building and thematic studies, which are essential to reducing the direct and underlying causes of deforestation and forest degradation.

28% of the general budget represents the dialogue, participation and monitoring components (1c and 4). These components emphasize the prior, free and informed consent consultation process. As do the definition of principles, criteria and indicators for monitoring services and environmental and social benefits.

33% of the budget is made up by components 2a, 2c, 2d, 3 and 6 for the land use change analysis, implementation framework and overall assessment of the RPP.

50% of the overall total budget will be executed in the first two years of planning with the aim of establishing the conditions of governance and national dialogue appropriate for the implementation and investment phase.

TABLE 40. Timeline and Budget Summary of the R-PP

Schedule and Budget						
		Estimated Cost (in thousands)				
Main Activity	Sub-Activity	2012	2013	2014	2015	Total
[Add lines as needed, to provide sufficient detail]	Table 1a: National Management Arrangements Activities and Budget Summary	$140	$231	$231	$231	**$833**
	Table 1b: Activity and Budget Summary	$42	$100	$95	$95	**$332**
	Table 1c: Budget and Activities Summary of Consultations and Participation.	$207	$247	$237	$212	**$903**
	Table 2a: Budget and Activities Summary of the Assessment of Land Use, Forest Policy and Governance	$220	$85	$0	$0	**$305**
	Table 2b. Budget and Activities Summary of the strategic framework	$1,289	$1,282	$1,262	$897	**$4,730**
	Table 2c. Budget and Activities Summary of the implementation framework	$105	$85	$40	$10	**$240**
	Table 2d. Activities Summary of the Social and Environmental Assessment System	$10	$123	$118	$58	**$309**
	TABLE 3. Estimated Budget and Baseline Activities Summary	$220	$160	$0	$0	**$380**
	Table 4: Estimated Budget and monitoring Activities Summary	$315	$355	$550	$500	**$1,720**
	Table 4a: Estimated Budget and monitoring Activities Summary	$124	$20	$0	$0	**$144**
	Table 4b. Multiple benefits, other impacts and governance	$55	$40	$0	$0	**$95**
	Table 6: M&E Activity and Budget Summary	$47	$85	$25	$125	**$282**
	Total	**$2,774**	**$2,813**	**$2,558**	**$2,128**	**$10,273**
Government		$0	$0	$0	$0	**$0**
FCPF		$829	$1,546	$898	$426	**$3,699**
UN-REDD Program (if applicable)		$0	$0	$0	$0	**$0**
Other Development Partner 1 (name)		$0	$0	$0	$0	**$0**
Regional program REDD-CCAD-GIZ		$0	$2	$5	$125	**$132**
Other Development Partner 3 (name)		$1,945	$1,265	$1,655	$1,577	**$6,442**

Component 6: Design a Program Monitoring and Assessment Framework

Standard 6 the R-PP text needs to meet for this component: Design a Program Monitoring and Assessment Framework

The R-PP adequately describes the indicators that will be used to monitor program performance of the Readiness process and R-PP activities, and to identify in a timely manner any shortfalls in performance timing or quality. The R-PP demonstrates that the framework will assist in transparent management of financial and other resources, to meet the activity schedule.

Please provide the following information:

- **Summarize your proposal in the space below in one to three pages;**
- **Fill in the budget and funding request in Table 6 (the detailed budget and funding data go in Component 5);**
- **If necessary, provide any additional details or draft input to ToR as Annex 6.**

Note: This framework is distinct from any that will be developed or undertaken by the World Bank for FCPF program assessment and supervision of Readiness Grant Agreements.

UN-REDD countries may also want to provide a Results Framework table, included below as Table 6-2.

Design a Monitoring and Assessment Framework Program

Objective

The objective of this component is to create a framework for monitoring and controlling the proper implementation of the work program of the R-PP Nicaragua (M+E plan). Specifically we seek to achieve an efficient, effective and transparent management of resources used in the process, and meet the goals, results and products in the manner and time required. This framework also permits to identify potential gaps, failures in performance or execution during the implementation of the work program and thus the basis for possible corrections in the process of developing the country's readiness for a REDD+ system.

Procedural Logic

For purposes of this paper a general framework that allows to assess the logic of the proposal and its key elements will be presented. In the first months of the R-PP implementation, a more detailed M+E plan will be developed, that will allow for a more detailed level of operational plan monitoring, activities and ToRs for the development and implementation of specific components using logical frameworks for these components.

The body in charge of developing the more detailed M+E plan is the ENDE-REDD+ executive technical secretary (ST) which will lead the monitoring of the implementation of the work program in coordination with the 3 levels of the ENDE-REDD+ platform in Nicaragua (see description in component 1).

In implementing the M+E plan we seek not only to monitor progress in regards to the implementation of measures, the establishment of results, and the products themselves, but also to verify the quality of products and outcomes, and their proximity to the fulfillment of established, or soon to be established, standards for both the participatory and consultative processes (e.g., CCB standards[69] for the quality of the participation process, compliance with social and environmental co-benefits, and rights of indigenous and local communities), as well as the technical aspects of the products and tools to be developed (e.g. GOFC-GOLD standards[70] for the monitoring system or VCS standards[71] for the baselines). Compliance with these standards ensures the consistency of national proposals with the requirements of relevant international processes and initiatives (UNFCCC, IPCC) and facilitates the acquisition of future international investment in ENDE-REDD+ programs in Nicaragua.

To the extent that the process of developing an END-REDD+ strategy in Nicaragua may establish sub-national approaches in terms of regional or territorial strategies, with their respective processes, baselines, institutional arrangements and monitoring systems, regional / territorial M+E plans will also be developed, meeting the sub-national realities but that are consistent with the nationwide M+E plan.

Monitoring and evaluation is divided into three main components, namely: (1) internal assessment and monitoring of the implementation of the ENDE-REDD+ readiness process, (2) external evaluations of the implementation and preparation process (3) assessments of the quality of the tools, approaches and products developed in comparison with the international established and widely recognized standards.

Internal assessments are conducted by the same personnel, active in the country's process, under the direction of level 1 of the ENDE-REDD+ platform; external evaluations and quality assessments will be conducted by technical experts selected by mutual agreement between national management and donation managers and administrators or their representatives.

TABLE 42: (6-2)UN-REDD National Program Monitoring Framework:

Potential tool for all countries, and required for UN-REDD countries
Implementation framework elements of M+E R-PP Nicaragua

Expected results	Indicators	Verifiers	Responsibilities	Risks and assumptions
Component 1a - Organic Operation (FO) of the developed GT REDD - GT REDD active in the implementing process of the R-PP	FO document available and approved by Level 1 of the ENDE platform (month 6) Regular meetings of the GT REDD (intervals to be determined) ST Progress reports	FO document, approval letter for Level 1 Meeting minutes/reports, GT REDD work plan (semiannual, annually)	Technical Secretariat of the process in coordination with Levels 1, 2 and 3 of the platform Technical Secretariat of the	Delays in the disbursement of $200,000 USD that will delay the start of the GT REDD activities of the ST, and thus of the completion of the studies still required to improve the current RPP.

[69] Climate-Community and Biodiversity Standards
[70] GOFC-GOLD in the sourcebook or reference book on REDD
[71] Voluntary Carbon Standards

Expected results	Indicators	Verifiers	Responsibilities	Risks and assumptions
- Constituted Technical Executive Secretariat (ST)	(semiannual, annually)		Process	
<u>Component 1b</u> - Consultations on the ENDE proposal at a national, regional and territorial level - Developed and implemented Outreach Program (PD) - Establishment of an executive unit (UE) for the dissemination, consultation and participation process	Base document for the prepared ENDE strategy proposal (month 8) 3 National workshops (months 9, 24, 44) 15 regional workshops (3-5 per year) 10 territorial workshops (2-3 per year) Program document available (month 8) Implementation of the PD according to an established work plan (months 9 - 48) Office of the UE established with its technical and administrative personnel and equipment (month 3), working through the entire process	Consultant's paper, R-PP progress reports Workshop documentation, R-PP progress reports Documentation of the R-PP process, work plan document for implementation of the PD R-PP progress reports Ready dissemination products (popular booklet, posters, story boards, illustrations, etc.)	Technical Secretariat in coordination with the levels 1 and 2 of the platform UE in coordination with the three levels of the ENDE platform UE coordinates and reviews the products that accompany the dissemination, consultation and participation process of ENDE	Access to resources is key to be able to start the process of dissemination, consultation and participation in the territories. Currently, it is not possible or advisable to advance the RPP process if there are no funds to develop the activities of component 1b.

Expected results	Indicators	Verifiers	Responsibilities	Risks and assumptions
<u>Component 2a</u> - Completed multi-temporal and multi-criteria analysis at the regional and territorial levels - Results of the analysis validated by experts - Results of the analysis validated by relevant political stakeholders - Study of opportunity costs of territorially differentiated land use (ideally by municipalities in REDD priority areas) - Validated "opportunity costs" results - Staff in relevant institutions (INAFOR, SINIA MARENA, MAGFOR, INETER, Universities) trained in modern monitoring techniques, remote sensing and forest	Prepared analysis document and GIS database (month 9) Carried out 3 meetings/workshops at national/regional level (months 9-12) Carried out 10 workshops at national/regional level (months 13 - 18) Analysis Document of opportunity costs, digital distribution map of opportunity costs of land uses that compete with forest conservation (month 20) 3 to 5 workshops with experts and stakeholders (months 21-24) Completed training courses in Nicaragua and abroad (1 - 2 classes a year, months 12, 24, 36) Developed work plan for inter-institutional coordination (month 16), regular meetings according to the plan	R-PP Progress Reports, interviews with participants at Level 2 of the platform R-PP Progress Reports, workshops reports, interviews with experts R-PP Progress Reports, workshops reports, interviews with key stakeholders Documents, R-PP Progress Reports, interviews with study consultants and experts Workshops reports, interviews with key stakeholders Projects and training agreements with relevant institutions (CATIE, INWENT), R-PP progress reports, interviews with trained personnel Meeting reports and protocol, R-PP progress reports, interviews with participants of the technical groups	Technical secretariat of the process Technical secretariat of the process, Level 2 of the ENDE platform ST of the process, Levels 2 and 3 of the ENDE platform ST of the process ST of the process, Levels 2 and 3 of the platform ST of the process, Level 2 of the platform ST of the process, Level 2 of the platform	The substantial improvements in political and technical nature that are required for both the RPP and the ENDE process are only possible if funds are available to advance the discussion of issues that are key to adopting a real REDD+ focus. Nicaragua, with its limited resources and counting on German cooperation, has begun the RPP process and the development of some preliminary studies. This shows a real interest in developing a REDD+ strategy (that the country has defined as ENDE). There is a risk of not being able to improve the RPP or the ENDE process without the support of the FCPF.

Expected results	Indicators	Verifiers	Responsibilities	Risks and assumptions
inventory - Conformed and functioning technical inter-institutional coordination groups (national, regional) on the subject of monitoring				
<u>Component 2b</u> - Territorial management plans (OT) with preferential-use zoning in the regions of RAAN, RAAS, Las Segovias, Jinotega and Matagalpa Prepared national outline of direct incentives for REDD+ - Regional forestry extension programs with a REDD focus established in priority areas of the regions of RAAN, RAAS, Las Segovias, Jinotega and Matagalpa	OT formalized documents: for RAAN (month 18) for RAAS (month 24) for Las Segovias (month 28) for Jinotega/Matagalpa (month 36) Formalized document for direct incentive payments structure with implementing regulations based on the study on the opportunity costs of component 2a (month 24) Prepared REDD+ forestry extension plans (month 18) Extension teams established in priority areas (month 18) beginning work from that month (at least 2 in the RAAN, 1 in other areas, 5 in total)	RPP progress reports, official documents, interviews with authorities Progress Reports RPP, REDD+ incentives regulations, interviews with key people RPP progress reports, documents and interviews Products reviewed: Management plans, proposed national incentive structure, proposed regional forestry extension programs, among others. Documents, RPP progress reports, control and monitoring reports made by staff	ST of the process in coordination with Level 1 of the platform and regional and local authorities ST of the process in coordination with Level 2 of the platform and FONDADEFO Level 1 of the platform to formalize the outline ST of the process in coordination with Level 2 of the platform and INAFOR	There is a risk of not starting the activities if there are no funds available for these purposes. All key stakeholders should be involved in a transparent and proactive process and in a positive proposal environment in order to consolidate a real structure of REDD+ incentives, differences between government opposition groups. During the internal discussions of a national structure of direct REDD+ incentives various conflicting positions may arise and the process could be extended because this proposal is developed at a

Expected results	Indicators	Verifiers	Responsibilities	Risks and assumptions
- Monitoring and control programs in the field of REDD+ implementation measures at the local and territorial level (producers plots, communities) -Established interagency coordination among relevant public services between the private sector, public institutions and civil society organizations in the REDD+ -Regional and national programs to prevent and fight forest fires, forest plagues and climate risks. - Prioritization of titling activities and the reorganization of indigenous lands properties in RED+ priority	Prepared REDD+ field monitoring plans (month 24) Plan to strengthen territorial capabilities in forest monitoring and control (month 24) Develop and formalize documents with a specific focus on inter- and intra-sectoral coordination (month 12) Documents with a specific focus on coordination with regional institutions and authorities (secretaries of autonomous regions), local (municipal) and community/indigenous territories (GTIs) governments Work plan for the development of the 3 programs (including awareness-raising activities): Fires and pests (month 18) Climate Risk (month 24) Prioritization plan for delimitation, titling and reorganization of	from relevant institutions (INAFOR FONADEFO) Projects and agreements with training institutions (eg CATIE, INWENT, REDD-CCAD project), documents, R-PP progress reports, R-PP Progress Reports, meetings reports of CONAFOR GOFOs, GT-REDD, ENDE platform levels, interviews with key authorities R-PP Progress Reports, meetings reports and protocols, interviews with key stakeholders of the GTIs, regional institutions, especially in the autonomous regions RPP progress reports, implementation protocols of the programs, biannual and annual reports of relevant institutions (INAFOR MARENA) RPP progress reports, implementation protocols of the programs, biannual and annual progress reports of the PPTI implementation plan	ST of the process in coordination with Level 2 of the platform and relevant institutions ST of the process in coordination with Level 2 of the platform and relevant institutions ST of the process in coordination with Levels 1, 2 and 3 of the ENDE platform ST of the process in coordination with Level 3 of the ENDE platform ST of the process in coordination with Level 2 of the platform and public (INAFOR, MARENA) and private (businesses, individuals and communities) institutions ST of the process in coordination with Levels 1, 2 y 3 2 of the REDD platform, relevant	technical level, it must be reviewed and adjusted at the local and territorial level and then validated at the political level. There is a risk of diluting the key technical discussions of the REDD+ process in political issues when groups of different ideologies participate in inter-institutional and inter-sectoral coordination activities (environmental, forestry, agriculture, energy, etc.). It is further assumed that aside from their own resources, additional funds to support the activities of agencies responsible for key programs to reduce deforestation and forest degradation in the country will

Expected results	Indicators	Verifiers	Responsibilities	Risks and assumptions
areas	indigenous and peasant territories (PPTI) in potential REDD+ areas (month 9)		institutions (CONADETI, support projects), communities y GTIs	be obtained.
<u>Component 2c:</u> - Established legal and administrative conditions for REDD+ implementation	Prepare the analysis document with identified of gaps in relation to the administration of REDD+ (month 18) Develop legal and administrative proposals to change or adapt the legal-administrative framework (month 24) Carry out and formalize legal changes and changes in administrative regulations (month 48)	RPP progress reports, technical and official documents Documents on the project regarding changes in the laws Official Gazette publishing	ST of the Process in coordination with Levels 1 and 2 of the platform and relevant public institutions	There is a risk that there will not be sufficient funds to implement incentives or that the expectations about the incentives will be too high.
- Established administrative system of REDD+ payments	Prepare the management system proposal based on the results of activity 2b2 and 2c1 (month 32) Prepare and agree upon the final management system document (month 42)	RPP progress reports, consultant document R-PP Progress Reports, discussion meetings reports on the topic, GT REDD agreements, final document	ST of the Process in coordination with Levels 1 and 2 of the platform and relevant institutions (FONADEFO, INAFOR, MARENA)	
- Develop a forest carbon accounting system integrated the national GHG reporting systems	Develop the criteria and protocols for the inclusion of REDD+ in the GHG inventory systems (month 24) Design the	R-PP Progress Reports, consultants proposal documents, GT REDD agreements	ST of the Process in coordination with Levels 1 and 2 of the platform and relevant institutions (MARENA, SINIA)	

Expected results	Indicators	Verifiers	Responsibilities	Risks and assumptions
	comprehensive GHG accounting system in relation to REDD+ and UTCUTS (month 32)			
	Produce, test and have ready for implementation the implementation system tools (month 42)	RPP progress reports, consultant documents		
- Established verification and certification system (V + C) independent	Prepared documents, criteria and indicators for certification(month 36)	RPP progress reports, meeting reports and decisions of the GT REDD meetings, pilot implementation reports	ST of the Process in coordination with Level 2 of the platform	
	Complete the pilot validation and implementation of the respective C+I (month 44)	RPP progress reports, consultant documents, GT REDD meeting decisions	ST of the Process in coordination with Levels 2 and 3 of the platform	
- Identify and document priority areas to implement REDD+ measures	Develop the generic application protocol of the V+C system (month 46)	RPP progress reports, GT REDD meeting reports and decisions	ST of the Process in coordination with Level 2 of the platform and potential certification companies	
	Develop and agree on the criteria for selecting REDD+ areas (month 14)	GIS Maps and accompanying documentation	ST of the Process in coordination with Levels 2 and 3 of the platform	
	Carry out the physical identification of areas, towns, communities, territories and their respective databases (month 22)		ST of the Process in coordination with relevant institutions	

Expected results	Indicators	Verifiers	Responsibilities	Risks and assumptions
Component 2d -A process of early dialogue and analysis in order to design a preliminary SESA proposal -Preliminary Work Plan Proposal for the assessment of environmental and social impacts (SESA) -Agreed and	Workshops carried out during the early dialogue process to identify ENDE-REDD+ concerns and impacts (month 12) Analysis studies for the construction of a (SESA) preliminary work plan (month 12) SESA preliminary work plan that includes: (month 24) Proposed preliminary stakeholder analysis. Participation Plan Communication and dissemination of public information plan. Matrix of policy and reform frameworks SESA work plan agreed and validated with relevant stakeholders (month 36)	Workshop reports. List of Participants A report containing: Priority social and environmental considerations A coordination mechanisms proposal to integrate proposals of social and environmental considerations. A consultation and participation plan on the social and environmental issues. A defined inter-sectoral working group for SESA monitoring Reports containing the draft work plan. List of participants of the national readiness workshop Report containing the SESA plan List of SESA national and regional workshop	MARENA focal point in the ENDE-REDD+ process Level II (technical agency specializing in the ENDE-REDD+ subject) Executive team formulating the RPP	

Expected results	Indicators	Verifiers	Responsibilities	Risks and assumptions
validated Preliminary Work Plan Proposal for the assessment of environmental and social impacts (SESA)		participants Reports of analytical and evaluation studies	Level I and II A defined inter-sectoral working group for SESA monitoring	
A Framework for Strategic Environmental and Social Management (ESMF). (month 48) Publication and dissemination of the SESA and ESMF process (month 48)	Developing an ESMF Systematization of the SESA and the ESMF process	A document that includes the ESMF Published systematization document	Level I and II A defined inter-sectoral working group for SESA monitoring Level I and II A defined inter-sectoral working group for SESA monitoring	
<u>Component 4</u> - Technical equipment and infrastructure in place with staff trained in its use - Developed and agreed monitoring program	Gradually develop and implement an acquisition and training plan (months 12, 24, 36) Institutional arrangements between INAFOR, MARENA-SINIA, INETER, MAGFOR, and universities to distribute the responsibilities developed and agreed (month 24) Developed and agreed comprehensive monitoring plan for changes in biophysical factors, socio-economic and forest governance, divided by categories and	R-PP progress Reports, plan implementation protocols, site visit, and interviews with technical staff Agreement documents between institutions on the distribution of tasks and responsibilities in the REDD+ monitoring program, reports of GT REDD meetings Proposal documents from consultants, R-PP progress report , GT REDD decision reports and protocols	ST of the Process in coordination with Levels 1 and 2 of the platform ST of the Process in coordination with all three Levels of the platform and the pertinent institutions (INAFOR, MARENA, INETER, MAGFOR, universities)	

Expected results	Indicators	Verifiers	Responsibilities	Risks and assumptions
	attributes for which baselines were established, (month 36) Complete implementation of the pilot monitoring program (month 48)	R-PP progress reports, pilot implementation reports for the three main issues (biophysical incl. carbon and forest areas, socioeconomic welfare, forest governance factors)	dto	

Table 41.: Activity, Timeline and Budget Summary for M&E

Main Activity	Sub-Activities	Estimated costs (in thousands of US Dollars)				
		2012	2013	2014	2015	Total
Development of an internal M+E system (after 6 months)	Consultancies to develop an M+E system in line with current national and sectoral M+E systems	$12				**$12**
	Inter-sectoral and ENDE platform meetings to validate the M+E	$10				**$10**
	Create specific M+E indicators	$10				**$10**
	Semiannual and annual implementation progress reports, using the framework in Table 6-2 and an annual operating plan	$5	$5	$5	$5	**$20**
	Annual workshops on progress assessment	$10	$10	$10	$10	**$40**
External assessments of the M+E plan (after 24 and 48 months)	Selection and recruitment of external evaluators to carry out the assessment		$35		$35	**$70**
	Workshops to validate the results of the external assessments with key stakeholders at a national, regional, and territorial level		$15		$15	**$30**
External assessments of the quality of products, tools and approaches developed and implemented in the readiness process	Assessment of the development process for the ENDE-REDD+ strategy		$20		$20	**$40**
	Baseline scenarios assessment			$10		**$10**
	System and monitoring program assessment in accordance with the guidelines of the FCPF and other international standards				$40	**$40**
Total		**$47**	**$85**	**$25**	**$125**	**$282**
National Government						
FCPF		**$47**	**$83**	**$20**	**$0**	**$150**
UN-REDD Program (if applicable)						
Another Development Ally 1 CCAD-GIZ						
Another Development Ally 2 (name)		$0	$2	$5	$125	$132

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Suggested Annexes for the R-PP (Optional)

Guidelines:

- **If you decide to annex draft input to Terms of Reference, plans, or other material important to describe how the R-PP would be organized or its studies performed, please include additional information in the annexes below;**
- **Delete any annex that is not used, but *please maintain the numbering* of the annexes (i.e., use the number for each Annex as shown below, even if you only have only a few annexes; do not renumber them);**
- **Update the Table of Contents to reflect only the annexes you include before finalizing the document.**

Annex 1a: National Readiness Management Arrangements

Please present your early ideas and/or draft input to ToR.

The annexes that correspond to this component are in the attached folder

Elements to define the Institutional legal framework

Roles of the production cabinet and its stakeholders

Annex 1b: Information Sharing and Early Dialogue with Key Stakeholder Groups

Please present any relevant additional material not included in the body of the R-PP (component 1b).

The annexes that correspond to this component are in the attached folder

Analysis of relevant stakeholders

Annex 1c: Consultation and Participation Process

Please present any relevant additional material not included in the body of the R-PP (component 1b).

The annexes that correspond to this component are in the attached folder

ENDE REDD+ Level 1 Resolution

Report of 10 early dialogue workshops with key stakeholders

Annex 2a: Assessment of Land Use, Land Use Change Drivers, Forest Law, Policy and Governance

Please present any relevant additional material not included in the body of the R-PP (component 2a).

The annexes that correspond to this component are in the attached folder

Workshop calculation methodologies and analysis of causes of deforestation

Annex 2b: REDD-plus Strategy Options

Please present the early ideas and/or draft input to ToR for work to be carried out. Please also present the strategy options themselves if they are available.

The annexes that correspond to this component are in the attached folder

Annex 2c: REDD-plus Implementation Framework

Please present the early ideas or draft input to ToR for work to be carried out. If you decided to merge Components 2b and 2c, you may also wish to merge Annexes 2b and 2c.

The annexes that correspond to this component are in the attached folder

1. **Elements to define the financial mechanism**
2. **Proposal for forest bond financing mechanism**

Annex 2d: Social and Environmental Impacts during Readiness Preparation and REDD-plus Implementation

Please present the early ideas or draft input to ToR for work to be carried out.

Annex 2d1: Preliminary summary of concerns and environmental impacts as a frame of reference of the ENDE-REDD+ strategy

PRELIMINARY ENVIRONMENTAL AND SOCIAL CONCERNS IN THE ENDE-REDD+ CONTEXT	IMPACT
• Deforestation and loss of protected natural ecosystems caused by timber trees extraction for the illegal commercialization in local markets; Timber harvesting for charcoal and firewood production, among others	• Limited capacity of the forests to regenerate environmental goods and services. • Loss of genetic, native and endemic biodiversity. • An accelerated degradation of ecosystems. • Reduction of water resources • Increased greenhouse gases.
• The promotion of monoculture agricultural growth patterns which are highly dependent on external inputs and extensive cattle raising. • Small and medium scale Migratory agriculture. • Uncontrolled agricultural burning to increase soil productivity.	• Reduced forest areas. • Increased degradation of natural resources by changes in soil use of forest land for agriculture and cattle raising. • Increased degradation of soil due to inadequate agricultural practices. • Loss of medicinal plants, forests, timber, wildlife and other terrestrial and aquatic organisms that ensure soil fertility and the reproduction of plants and animals. • Increased soil erosion and increased drought areas.
• High risk due to natural phenomena	• Increased frequency of natural disasters such as floods, droughts, landslides and hurricanes. • Increase in desert and drought areas • Temperature increase • Greater vulnerability of indigenous peoples and peasant communities.
• The legality of land and the definition of the property rights of the indigenous communities. • Lack of identification of the different individual rights (both legal and customary) and their rights to lands, territories and resources. • The need for reform and alignment of the legal framework.	• No recognition or respect to the legal and customary rights of indigenous peoples and local communities that have traditionally owned, occupied or otherwise used lands, territories and resources. • Increased conflicts over lands, territories and resources.
• Internal migration and population growth.	• Increase in the practice of deforestation and extensive burning.
• Deficient institutional capacity to manage and control forestry activities, and ensure the participation of all stakeholders.	• The existence of a deficient monitoring system. • Limited roles for the stakeholders

PRELIMINARY ENVIRONMENTAL AND SOCIAL CONCERNS IN THE ENDE-REDD+ CONTEXT	IMPACT
• The promotion of government agricultural exportation policies and programs that promote deforestation	• Traditional knowledge of indigenous peoples in relation to the ecosystem and environment are not recognized, enhanced or strengthened.
• Lack of knowledge and weak market for forest products and services	The decrease in the quality of life of the population dependent on forest ecosystems.
• Lack of the populations education and information	• Weak, ineffective and inefficient participatory mechanisms to allow the establishment of an equitable distribution of program benefits among groups of rights-holders and relevant stakeholders taking into account the associated costs, benefits and risks.
• Little participation of women in community assemblies • Cultural uprooting of the indigenous peoples from the forest.	• Limited participation of women in consultation and participation processes • A limited decision making power compared to indigenous men • Changes in the dynamics of their sustainable livelihoods…….. • Increased social and economic vulnerability if they are not prepared for technological transformation •

Annex 2d2: List of stakeholders and their roles in the R-PP and SESA process

Stakeholders	Role in the RPP framework	Role within the R-PP Framework in the SESA implementation process
Ministry of the Environment and Natural Resources (MARENA)	Currently it is located in the first and second level and is the focal point of the ENDE-REDD+ strategy	Proposed in the workshops held in the framework of early dialogue as the national coordinating body in the entire SESA process. In addition to being part of the monitoring team at the National Level
Faming and Forestry Ministry (MAGFOR)	Currently located in the forest and second level where it takes part in decisions related to facilitating the process, conflict resolution, and ensuring the political framework at the highest ENDE-REDD+ level. Level I must also coordinate and influence the activities and programs of the forest, farming and other relevant sectors.	It is proposed in the workshops held in the framework of early dialogue as part of the national decision making group in the entire SESA process. In addition to being part of the monitoring team at the National Level
The National Forestry Institute (INAFOR)	It is located on the second level in the ENDE-REDD technical institutional platform.	It is proposed in the workshops held in the framework of early dialogue as part of the national decision making group in the entire SESA process. In addition to being part of the monitoring team at the National Level
North Atlantic Autonomous Regional Government (GRAAN) South Atlantic Autonomous Regional Government (GRAAS)	Described at Level 1, along with other relevant stakeholders to make decisions on facilitating the process, conflict resolution and ensure the political framework at the highest level. It must also coordinate and influence the activities and programs of the forestry sector and other relevant sectors. Is also described in level 2. where the institutional technical ENDE-REDD platform is located, made up by specialists, social workers and politicians. This is the body of technical expertise in the subject ENDE-REDD.	Proposed in the SESA process, as part of the level 1 decision making team and as part of the institutions responsible for monitoring the SESA process at national and sub-regional level.
Nicaraguan Institute of Territorial Studies (INETER)	It is at level 2, it is a member of the institutional technical ENDE-REDD platform is located, made up by specialists, social workers and politicians. This is the body of technical expertise in the subject ENDE-REDD.	Proposed in the SESA process, as part of the level 1 decision making team and as part of the institutions responsible for monitoring the SESA process at national level.
Social and Environmental Organizations Indigenous Peoples Autonomy and Development Center (CADPI)	It is located at level 3. It is in charge of support and integration in processes and actions within the ENDE framework. Participation and involvement in coordination processes of ENDE activities.	Are proposed as potential stakeholders in charge of territorial monitoring and follow-up. Administrators

Stakeholders	Role in the RPP framework	Role within the R-PP Framework in the SESA implementation process
Indigenous Women's Association of the Atlantic Coast AMICA National Alliance to Face Climate Change (ANACC)	Involvement in direct implementation ENDE activities according to its objectives. Systematic coordination with the producers cabinet (public sector)in the management and execution of ENDE projects. Contribute to the ENDE monitoring systems. Exert more control over the work done by NGOs in ENDE priority regions. Establish a close relationship with the public sector in order to coordinate and strengthen the country's position in ENDE matters.	Follow-up and control of safeguards and indicators Monitoring and reporting
Universities National Agrarian University (UNA National Engineering University (UNI) University of the Autonomous Regions of the Caribbean Coast of Nicaragua (URACCAN) National Engineering University (UNI)	Universities are responsible for research, training authorities, and facilitation Generate information and experience exchanges	They can collaborate in summarizing and systematizing information in the ENDE-REDD+ process at the **Sub-regional** level.
Forest Consultative Council (CCF-A) of the RAAN	It is at level 2 of the institutional technical ENDE-REDD platform is located, made up by specialists, social workers and politicians. This is the body of technical expertise in the subject ENDE-REDD.	It is proposed in the early dialogue workshops as the entity in charge of monitoring SESA at the regional or **sub-regional** level.
Development Secretariat of the Caribbean Coast (SDCC)		It is proposed in the early dialogue workshops as the entity in charge of supporting the SESA process at the **sub-regional** level.
Indigenous Territorial Government (GTI)		It is proposed to be in charge of the execution, follow-up and control of safeguards, indicators, monitoring and reports. It will also be, along with the Mayor's Office, part of the SESA monitoring system at the local level.
Mayor's Office		It is proposed to be in charge of the execution, follow-up and control of safeguards, indicators, monitoring and reports. It will also be, along with the Mayor's Office, part of the SESA monitoring system at the local level.

Stakeholders	Role in the RPP framework	Role within the R-PP Framework in the SESA implementation process
Cattle Farming Sector The National Union of Farmers and Ranchers of Nicaragua (UNAG), National commission for farmers (CONAGAN), Federation of Livestock Associations of Nicaragua (FAGANIC).		Are proposed as potential stakeholders in charge of territorial monitoring and follow-up.

Annex 3: Develop a National Forest Reference Emission Level and/or a Forest Reference Level

Please present the early ideas or draft input to ToR for work to be carried out.

The annexes that correspond to this component are in the attached folder

Annex 4: Design Systems for National Forest Monitoring and Information on Safeguards

Please present the early ideas or draft input to ToR for work to be carried out.

The annexes that correspond to this component are in the attached folder

Annex 5: Schedule and Budget

Please present any additional details of your proposed Schedule and Budget.

The tables with annexes that correspond to this component are in the attached folder

Annex 6: Design a Program Monitoring and Assessment Framework

Please present any additional details of your proposed Monitoring and Assessment.

[end]