Forest Carbon Partnership Facility (FCPF)
Carbon Fund
Emission Reductions Program Idea Note (ER-PIN)
VERSION 1
August 26, 2015

Country: Nicaragua

ER Program Name: ***REDD+ Program to Combat Climate Change and Poverty in Nicaragua***

Date of Submission or Revision: September 11, 2015

Guidelines:

1. The FCPF Carbon Fund will deliver Emission Reductions (ERs) from activities that reduce emissions from deforestation and forest degradation, conserve forests, promote the sustainable management of forests, and enhance forest carbon stocks in developing countries (REDD+) to the Carbon Fund Participants.
2. A REDD Country Participant interested in proposing an ER Program to the Carbon Fund should refer to the selection criteria included in the Carbon Fund Issues Note available on the FCPF website (www.forestcarbonpartnership.org) and to further guidance that may be communicated by the FCPF Facility Management Team (FMT) over time.
3. ER Programs shall come from FCPF REDD Country Participants that have signed their Readiness Preparation Grant Agreement, using this ER Program Idea Note (ER-PIN) template.
4. The completed ER-PIN should ideally not exceed 40 pages in length (including maps, data tables, etc.). If additional information is required, the FCPF FMT will request it.
5. Please submit the completed ER-PIN to: 1) the World Bank Country Director for your country; and 2) the FCPF FMT (fcpfsecretariat@worldbank.org).
6. As per Resolution CFM/4/2012/1 the Carbon Fund Participants' decision whether to include the ER-PIN in the pipeline will be based on the following criteria:
    i. **Progress towards Readiness:** The Emission Reductions Program (ER Program) must be located in a REDD Country Participant that has signed a Readiness Preparation grant agreement (or the equivalent) with a Delivery Partner under the Readiness Fund, and that has prepared a reasonable and credible timeline to submit a Readiness Package to the Participants Committee;
    ii. **Political commitment:** The REDD Country Participant demonstrates a high-level and cross-sectoral political commitment to the ER Program, and to implementing REDD+;
    iii. **Methodological Framework:** The ER Program must be consistent with the emerging Methodological Framework, including the PC's guiding principles on the methodological framework;
    iv. **Scale:** The ER Program will be implemented either at the national level or at a significant sub-national scale, and generate a large volume of Emission Reductions;
    v. **Technical soundness:** All the sections of the ER-PIN template are adequately addressed;
    vi. **Non-carbon benefits:** The ER Program will generate substantial non-carbon benefits; and
    vii. **Diversity and learning value:** The ER Program contains innovative features, such that its inclusion in the portfolio would add diversity and generate learning value for the Carbon Fund.

1. Entity responsible for the management of the proposed ER Program

1.1 Entity responsible for the management of the proposed ER Program

Please provide the contact information for the institution and individual responsible for proposing and coordinating the proposed ER Program.

Name of managing entity	Ministry of Environment and Natural Resources–MARENA-
Type and description of organization	Government Sector
Main contact person	Juana Argeñal Sandoval
Title	Minister of Environment and Natural Resources
Address	Km 12.5 North Highway, in front of the Duty Free Zone, Managua, Nicaragua.
Telephone	(+505) 22632862
Email	jargenal@marena.gob.ni
Website	www.marena.gob.ni

1.2 List of existing partner agencies and organizations involved in the proposed ER Program

Table 1. Agencies that will form part of the Emissions Reduction Initiative in Nicaragua

Name of Agency or Organization	***Name of Contact, Telephone Number, E-mail***	***Capabilities and Roles in the Emission Reductions Initiative***
Ministry of Finance and Public Credit	Iván Acosta Montalván, Minister Tel (+505) 22227061 E-mail: Ivan.acosta@mhcp.gob.ni.	Responsible for fiscal policy and economic representative of the state of Nicaragua before financial organizations.
Ministry of Agiculture	Edward Francisco Centeno Minister Tel (+505) 22751441 E-mail: ministro@magfor.gob.ni	Responsible for formulating, implementing, monitoring and evaluating policy for the agricultural sector, defining areas for forest development and coordinating with ecological protection programs.
National Forestry Institute	William Schwartz Cunningham Tel (+505) 22330013 E-mail: wshuartz@inafor.gob.ni	In charge of implementing the country's forest development policy, generates reference levels for the sector and has a presence throughout the country.
National Fund for Forest Development	Luviam Zelaya,Executive Director Tel (+505) 88500295 E-mail: direjecutiva@fonadefo.org	In charge of obtaining and administering financial resources to develop and finance programs and projects to develop the forest sector and of the policies to protect, conserve and increase natural resources.
Nicaraguan Institute of Territorial Studies	José Blanco Solórzano, Secretary General Tel (+505) 22492757	In charge of research, inventory and assessment of the country's physical resources.

	E-mail: jose.blanco@ds.ineter.gob.ni	In charge of research, inventory and evaluation of the country's physical resources. Executes territorial management studies, studies on effects caused by natural phenomena to determine risk areas. Regulates and carries out cartographic and geodesic work. Establishes rules for, regulates, updates and executes national land registry.
South Caribbean Coast Autonomous Government	Domingo Truesdale, Coordinator Tel (505) 88281765 Doth56@yahoo.com.mx	Representative of the different indigenous and Afro-descendant communities. Participates in the development, planning, implementation and monitoring of policies, plans and economic, social and cultural programs that affect the region. Resolves boundary disputes between different communities. Ensures correct use of the region's Development and Social Advancement Fund.
North Caribbean Coast Autonomous Government	Carlos Alemán Cuningham, President, Board of Directors Tel (+505) 88515623 E-mail: carlosalemancuningham3@gmail.com	Representative of the different indigenous and Afro-descendant communities. Participates in the development, planning, implementation and monitoring of policies, plans and economic, social and cultural programs that affect the region. Resolves boundary disputes between different communities. Ensures correct use of the region's Development and Social Advancement Fund.
Municipalities	See Map of Municipalities in Appendix 4.1-1	Is the competent authority to deal with matters that affect the socioeconomic and environmental development of the municipality.

2. Authorization by the National REDD+ focal point

Name of entity	Ministry of Environment and Natural Resources–MARENA-
Main contact person	Juana Argeñal Sandoval
Title	Minister
Address	Km 12.5, North Highway, in front of the Duty Free Zone, Managua, Nicaragua.
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2.1 Endorsement of the proposed ER Program by the national government

The REDD+ focal point in Nicaragua is the Ministry of Environment and Natural Resources (MARENA), which submits this Emission Reductions Program Idea Note (ER-PIN) for consideration. It was carried out through processes of dialogue and consultation with the indigenous peoples and people of African descent (Afro-descendants) on the Caribbean coast of Nicaragua. The minutes of Working Group 1 and letters of approval from Caribbean regional authorities are in Appendices 2.1-1, 2.1-2 and 2.1-3).

2.2 Political commitment

Nicaragua, under the leadership of President and Commandant Daniel Ortega Saavedra, defends Mother Earth in international forums and acts at national and regional levels. Nicaragua was the first country in the world to subscribe to the Universal Declaration on the Common Good of the Earth and Humanity. Under this guiding principle, the National Human Development Plan (PNDH) 2012–2016 was updated and the National Environmental and Climate Change Strategy 2010–2015 has been prepared, which is made up of five strategic guidelines, one of them being **Mitigation, Adaptation and Risk Management in the Face of Climate Change.**

Within the framework of the PNDH 2012–2016 guidelines, the axis of environmental transformation is established, which includes adaptation and mitigation related to climate change, transformation of the energy matrix, care of Mother Earth, setting the boundaries of indigenous lands and titling them, and technological innovation. It should be pointed out that the government of Nicaragua aims to increase energy generation from renewable sources from 25% in 2007 to 94% for the year 2020.

Nicaragua is the fourth country in the world most affected by extreme climate events between 1994 and 2013, with 49 climate events that generated economic losses of US$301 million and 2.98 deaths for each 100,000 inhabitants (German Watch, 2014).[1]

With increasing frequency, the country suffers losses and damages from hurricanes, intense rainfall, floods, severe and prolonged droughts and increases in temperature. Hurricanes Mitch (1998) and Felix (2007) even now affect the national economy and livelihoods of rural communities. Hurricane Felix caused economic losses of US$858 million (CEPAL, 2010),[2] Hurricane Mitch seriously affected the national economy, provoking total damages up to US$988 million,

[1] German Watch, 2014. “Global Climate Risk Index 2014.” Bonn, Germany. www.germanwatch.org.

[2] CEPAL, 2010. *The Economics of Climate Change in Central America: Summary 2010*. 144 p.

leaving in its wake 80,000 hectares of crops destroyed. Of that total, 63,000 manzanas belonged to small producers, as did 50,000 head of cattle lost.

For this reason, Nicaragua has set increasing social and ecosystem resilience as a national priority through projects and programs concerning adaptation to climate change. The country implements projects and programs to reduce the vulnerability of rural populations to the impacts of climate change through an increase in family incomes in rural zones that are highly vulnerable to climate variability.

ENDE-REDD+ in no way intends to use carbon bond markets since these benefit only large developed countries that are producers of greenhouse gases and evade their historic responsibilities for the causes of climate change, showing a low level of interest in emission reductions and financing in negotiations on the climate.

A program to reduce deforestation and forest degradation through the FCPF Carbon Fund does not establish any kind of binding commitment in the international arena. Basically, it is a fund that recognizes an economic value for reductions that is not influenced by supply and demand of international carbon markets. In addition, the FCPF is not under the directives of the Framework Convention on Climate Change; it does consider the technical guidelines. THE FCPF responds to the decisions of the assembly of donor countries and REDD+ countries.

The government of Nicaragua has the political will to continue to transform the current agroecological model; to achieve this joint actions are taken by the Ministry of Agriculture, Ministry of Family, Community, Cooperative and Associative Economy and the Ministry of the Environment and Natural Resources to promote a more humane, sustainable model of responsible consumption and have less dependence on agrochemicals, greater productivity and a profound respect and love for Mother Earth. There is also a commitment from the agencies responsible for environmental and forest management (MARENA, INAFOR and municipalities) to promote concrete actions for reforestation, positive incentives for communities and shared responsibility, developing clear, effective and transparent mechanisms for distribution of benefits with direct participation by the Ministry of Finance and Public Credit.

3. Strategic context and rationales for the ER Program

3.1 Brief summary of major achievements of readiness activities in country thus far

In 2008, Nicaragua took its first steps with the Forest Carbon Partnership Facility (FCPF) to present the idea for a project to develop its National Strategy to Reduce Deforestation and Forest

Degradation, called ENDE (Readiness Preparation Proposal, 2012). Since then Nicaragua has made significant progress in the process of ENDE-REDD+ organization.

During the past five years, the platform for preparation of basic conditions for formulation, dialogue, consultation and implementation of ENDE-REDD+ has gradually been organized and established, with effective participation of indigenous and Afro-descendant peoples. Participation of different actors and leaders representing different levels of government in the country has been respected and encouraged, with special emphasis on the region of Nicaragua's northern and southern Caribbean coast.

Following are the principal advances in each of the preparation plan components.

Component I. Governance, Organization and Consultation: During the preparation phase for ENDE-REDD+, work has been done on capacity building in operational logistics at MARENA, providing a work team to assist in the design process for ENDE-REDD+ with all actors as well as creating a platform for governance and integrated participation for three working groups.

The activities developed have been within the framework of consensus and free, prior and informed consent (FPIC) with the indigenous and Afro-descendant communities (see **Appendix 3.1-1).**

Component II. Development of REDD+ Strategy: The SESA Work Plan has been updated, considering the proposals of the indigenous territorial governments and the regional autonomous governments. Opportunities for dialogue have been promoted and conformation of two SESA task forces, in which progress has been made in analysis of the strategic options planned in the R-PP—to promote and support studies and concrete actions that deal with the main causes of deforestation and forest degradation, reducing its tendencies and impact on the environment and on the people.

Component III. Development of a Reference Level of Forest Emission of Carbon: The main advances in development of this component are represented by the definition of the Activities Data (AD) and the Emission Factors (EFs), as well as by the creation and building of local technical capacities in issues linked to use of guidelines of the Intergovernmental Panel on Climate Change (IPCC) for development of greenhouse gas inventories, geographic information systems and techniques for doing an inventory of forest resources.

Component IV. Design and coordination of a National Forest Monitoring System: The most significant advances in this component center on strengthening the capacities of the country's technology platform, made up of member institutions of ENDE-REDD+. A conceptual design of the National Forest Monitoring System has been developed and a preliminary design for its search engine is being prepared, including a geoportal. It is expected that this site will be a means by

which the public has access not only to cartographic information and the situation of the country's forest resources but also to safeguards and other activities associated with ENDE-REDD+.

Other instruments and mechanisms that have enabled creation of conditions for ENDE-REDD+ are updating of the National Forest Inventory, which FAO has supported, and monitoring of change is soil use in 27 of the 74 protected areas in the National System of Protected Areas (SINAP), which in all encompasses 454,339 ha (19.49% of the country).

3.2 Current status of the Readiness Package and estimated date of submission to the FCPF Participants Committee (including the REL/FRL, REDD+ Strategy, national REDD+ monitoring system and ESMF).

In the implementation timetable of the R-Package are tasks present throughout the entire period, among them operation of the ENDE working group, operation of the platform of multiple actors, and also included in this group could be the communication strategy and the Dialogue Mechanism for Attention of Claims that begins in the second year when the R-Package concludes. There are also activities that begin and should end in the second year and, finally, in the last year (2017), the principal activity will be consultation of ENDE-REDD+ in the autonomous regions (Activities in Appendix 3.2-1).

3.3 Consistency with national REDD+ strategy and other relevant policies

ER-PIN is aligned with the country's strategies, mainly with ENDE REDD+, that has its origin and foundation in the National Human Development Plan (PNDH); National Forestry Plan (PNF), Climate Change Adaptation and Mitigation Policy (PAMCC); National Environmental and Climate Change Strategy (ENACC); and Production, Consumption and Trade System, as an entity of GRUN. It is also aligned with the regional strategies of the northern Caribbean coast on climate change and forest development, among others. These instruments or entities are oriented in two directions: current working processes related to climate change and the arrangements and mechanisms aimed at ENDE development.[3]

[3] MARENA, Readiness Preparation Proposal document (R-PP)-Nicaragua. Mayo 31, 2013. Managua, Nicaragua

Figure 3.3-1. National Strategy for Avoided Deforestation aligned with other political instruments.

In this sense, we can affirm that ER-PIN is being constructed on a foundation of the ENDE-REDD+ pillars and has particular relevance when there is a need to propose concrete actions that go beyond the preparation phase,[4] as well as the need for additional financing to carry out fundamental strategic actions for climate change mitigation and adaptation.

Table 3.3-1 summarizes the link between the activities described for ER-PIN and the six strategic lines of ENDE-REDD+ covered in the R-PP. It is worth mentioning that the majority of actions described in the ER-PIN are not considered in the R-PP proposals but are directly related to strategic options to confront the direct and underlying causes. A greater number of actions directed to ENDE implementation, rather than its preparation, are specifically proposed (See table in Appendix 3.3-1).

4. ER Program location and lifetime

4.1 Scale and location of the proposed ER Program

Nicaragua adopts a national scheme in the ENDE framework, which enables informing about actions being developed in its different implementation phases. Nevertheless, in the ER-PIN program framework presented to the FCPF, a subnational scheme will be adopted, directed to prioritized areas that correspond geographically and administratively to Subnational Region 1, made up of the North Caribbean Coast Autonomous Region (RACCN), with addition of the municipalities of Wiwilí de Nueva Segovia, Wiwilí de Jinotega, El Cuá and San José de Bocay, and Subnational Region 2, made up of the South Caribbean Coast Autonomous Region (RACCS),

[4] World Bank. Minutes of the Implementation Support Mission. March 10–13, 2015, Managua, Nicaragua

including the municipalities of San Juan del Norte and El Castillo (see Figure 4.1-1). The subnational area represents the first stage of impact referred to in the PRE Idea Note.

The area proposed for the Emissions Reduction Program is 7,023,717 ha, of which 2,969,704 is covered by forest (90% of the country's forest cover), equal to 42.2% of the subnational total. There are 26 municipalities in the program (see map in Appendix 4.1-1), with a total population of 1,107,342 inhabitants (INIDE estimates). [5]

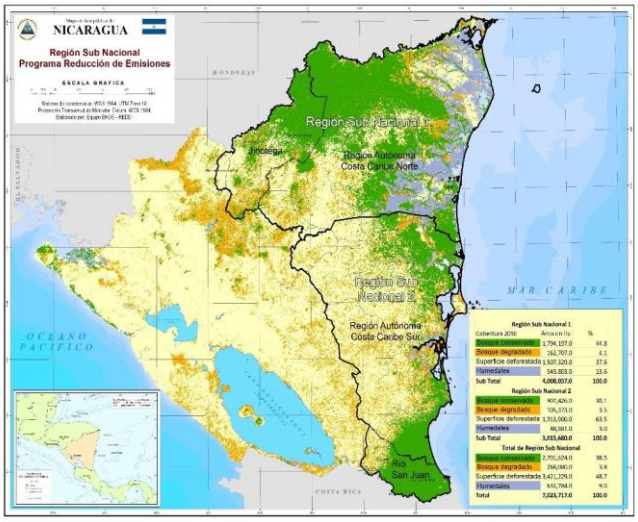

Figure 4.1-1. Location of the Emissions Reduction Program (PRE). Source: CCAD-INETER.

A subnational area is defined according to aspects related to geographic, administrative, ecological and social aspects, for which the following criteria have been established:

1. Total inclusion of the two autonomous regions of the Caribbean coast, a priority zone for ENDE-REDD+.
2. Inclusion of the Bosawás Biosphere Reserve and the Indio Maíz Biological Reserve, both having high biological value and richness. Species listed in Appendix I of CITES[6] are found in the region due to the fragile state of their conservation, such as *Leopardus pardalis, Leopardus tigrinus, Leopardus wiedii, Panthera onca, Puma yagouaroundi, Lontra longicaudis, Tapirus bairdii, Alouatta palliata, Ateles geoffroyi, Jabiru mycteria, Harpia harpyja, Falco peregrinus*, *Amazona auropalliata*, *Ara ambiguus*, *Ara macao*, *Pharomachrus mocinno* and others.
3. Presence of rainforests of great relevance for the country and the region because of their high diversity of flora.

[5] http://www.unfpa.org.ni/wp-content/uploads/2013/02/Proyeccion-Poblacion-Nic-2007.pdf
[6] http://www.caftadr-environment.org/spanish/outreach/publications/CITES%20Updated%20Fauna%20and%20Flora%20Species%20(Spanish).pdf.

4. Presence of forest formations of great relevance for the country due to their high carbon content (about 90% of forests in the country).
5. Areas with high pressure of deforestation and forest degradation (R-PP of ENDE-REDD+ project, Nicaragua).[7]
6. Existence of forest governance platforms led by the Forest and Environment Advisory Council (CCF-A) in RACCN and the RACCS Governance Committee, which would facilitate conditions for implementation of REDD+ actions.
7. Inclusion of indigenous territories on Nicaragua's Caribbean coast.
8. Populations in the category of severe poverty (2005 Census).[8]

4.2 Expected lifetime of the proposed ER Program

The program will last for 20 years; however, the duration of actions contained in this Idea Note for the Emissions Reduction Program that the country is presenting to the Carbon Fund has a 10-year projection, and with an offer to the Carbon Fund for the first five years of ER-P. The total period of the program is thought to be ideal for addressing the direct and underlying causes of deforestation and forest degradation.

5. Description of activities and interventions planned under the proposed ER Program

5.1 Analysis of drivers and underlying causes of deforestation and forest degradation, and conservation or enhancement trends

During the R-PP process, a study was done entitled Main Drivers of Forest Loss and Degradation in the Country.[9] In 2015, the group of experts in charge of developing the ER-PIN, taking into account the above-mentioned study, a bibliographic study and the voice of the communities in the workshops, confirmed that the principal drivers of deforestation and forest degradation in the area of influence proposed for the PRE are 1. advance of the agricultural frontier, 2. logging or illegal extraction of forest products, 3. forest fires and agricultural burning, 4. environmental emergencies due to natural phenomena, 5. social pressure on resources by poor families and 6. invasion of colonists on indigenous lands.[10]

Advance of the agricultural frontier. - Extensive livestock farming with low yields has become the principal threat to forests. Conversion of forest to agricultural areas is linked to food security of rural families, while opening areas for pastures has the purpose of making new pastures available to

[7] http://www.sinia.net.ni/multisites/ende/publicaciones.html.
[8] http://www.inide.gob.ni/censos2005/cifrasmun/mappobrezad.pdf.
[9] ENDE-RPP document. May 2013.
[10] Workshops in 17 indigenous territories and joint management plan with Bosawás Biosphere Reserve.

livestock during the dry season--the Atlantic region being the one that resolves or helps to deal with the scarcity of pastures in other parts of the country.

Illegal logging. - This is also an important cause of deforestation and forest degradation. Studies done by INAFOR in 2014 suggest that the volume extracted by illegal logging is equal to about 60% of the volume of logging authorized and registered by INAFOR.[11]

Forest fires, - These result from human action. They are provoked by some to justify changes in land use in protected areas, by illegal poachers and by illegal land invaders. For years, this has resulted in loss of important areas of forest cover, largely in protected areas. According to SINAPRED data, the tendency of forest fires is decreasing.

Environmental emergencies or disasters due to natural phenomena. - Extreme events such as hurricanes, tropical storms and prolonged droughts are frequent on the Caribbean coast, provoking damages to agroforestry systems, affecting food security of the people in the region and affecting forest ecosystems.

Invasion of colonist in indigenous territories. - This cause was identified in legal surveys and studies done in indigenous territories as input for advancing in the restructuring stage. It was also found in the perceptions and testimony of community members and actors present in the workshops held for ENDE-REDD+.

Direct and underlying causes of deforestation and forest degradation. - To better illustrate the proposal contained in the PRE Idea Note, a table has been prepared that links the direct and underlying causes of deforestation and forest degradation with the six strategic options identified in the R-PP and their respective specific activities, a relationship revisited in formulating PRE activities (see Appendix 5.2-1, columns a, b and c). A summary of underlying causes follows.

1. Weak institutional capacity

Institutions of the central government, autonomous governments of the Nicaraguan Caribbean and municipalities have limited institutional capacity, which restricts the effectiveness of their actions.

2. Lack of alignment of regulatory frameworks

The lack of coordination among intersectorial policies and programs is another of the problems that confront the forestry sector. An example of this situation has to do with concessions for African palm. In addition, the forest is not seen to make an important contribution between food production and environmental sustainability.

[11] In 2000, INAFOR authorized the cutting of 56,100 m^3 of roundwood, but exportations were 70,392 m^3 of sawn timber. INAFOR 2009 Annual Report.

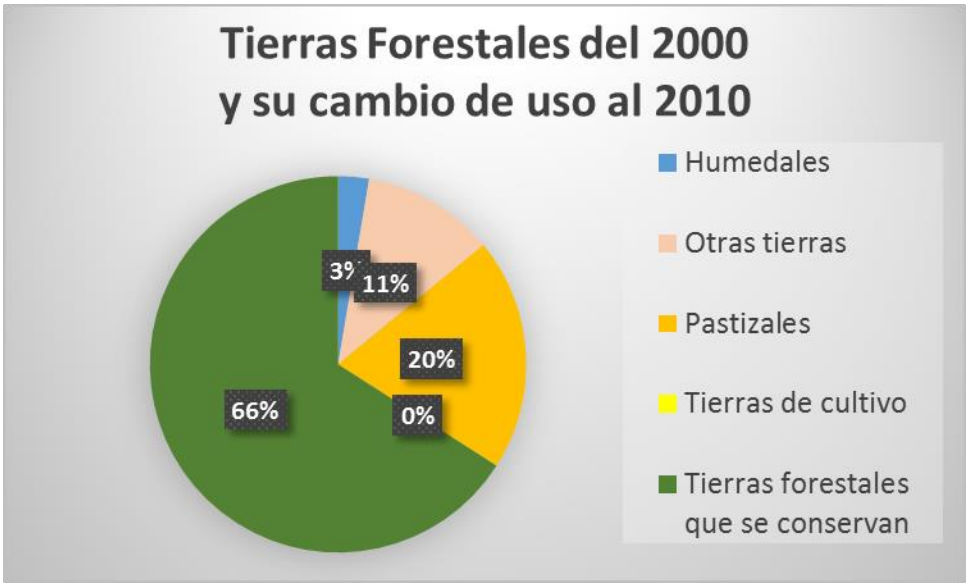

Figure 5.1-1. Forest lands in 200 and their change in use by 2010. Source: INAFOR.

3. Subsistence agriculture

The advance of the agricultural frontier is a phenomena related to structural poverty, with a high percentage of campesinos without land whose livelihoods depend on access to it. Poor farmers with little land and low capital undertake extensive activities such as raising livestock.[12] Since the 60s and 70s, this has been linked to migration of peasant farmers to forest lands, supported by tenure programs and lending policies that gave higher value to "improved" lands (without forest).[13] Extensive livestock farming continues to increase and is strongly rooted in the productive culture of the campesinos. Indigenous communities can be added as well, through sharecropping or renting land for pastures or grass for livestock (Figure 5.1-1).

4. Insufficient incentives for protection, conservation and change in soil use

Generally, there is a lack of knowledge about the potential for marketing non-timber products and environmental services offered by the forest, making its conservation not very attractive in economic terms. Small-scale initiatives exist at the community level that are linked to indigenous women's groups; however, they face strong limitations in coordination and promotion.

[12] They have been moving from the Pacific toward the eastern part of the country, toward the forest where lands have less commercial value. After felling the trees, they slash and burn to ready the land for harvesting basic grains, which is done for two or three years until the productivity of the soil is exhausted. Then the poor farmer is going to sell the degraded land, usually to a livestock producer who will use it for grazing. Once again, the farmer will buy land farther east, repeating the chain of events.

[13] A fact the shows the advance of extensive livestock farming is the area dedicated to pastures, which grew from 3.5 million ha in 1977 to about 5.0 million ha in 1991.

5. Weak commercial framework and value chains

Creation of value chains is limited by commercialization of products in the hands of large landowners and a commercial framework of a monopoly, one that also focuses on sale of roundwood or at a first level of processing. There is weak local capacity to develop diversity in viable economic alternatives with forest products and little negotiating capacity of the legal owners of the trees. Access to markets for agricultural products is hampered by poor access roads and personal insecurity.

6. Weak governance and territorial management

The main forest areas in the country are found in the autonomous regions of the Caribbean coast and are property of indigenous and Afro-descendant communities. One of the problems is the weakness of the forest governance platform.

5.2 Assessment of the major barriers to REDD+

The main barriers to implementation of ENDE-REDD+ follow. The same have been organized in function of the six strategic options identified in the R-PP for ENDE-REDD+ (Appendix 5.2-1, column E).

SO 1: Strengthen the institutional capabilities and the governing forestry structures. The institutional capabilities and structures of forest governance are fundamental to conservation of protected areas and private wildlife reserves. However, these are limited by the following barriers:

- Little institutional ability to impose adoption of forest regulations that prevent unsustainable extraction.
- Lack of institutional presence in extensive areas of the country, especially in the forested regions of the Caribbean in Nicaragua.
- Lack of application of social audit mechanisms as well as cultural barriers that undervalue and plunder the country's forests.
- High opportunity costs of maintaining the forests.

Actions aimed at overcoming these barriers will help us stop illegal logging, one of the principal causes of deforestation and forest degradation.

SO 2: Alignment of the political and regulatory framework. The adjustments and alignment of the political and regulatory framework cover the need to improve the systems and instruments of regulation and control of forest management in order to carry out actions to reduce deforestation and forest degradation; however, the following barriers are found:

- Opposition of productive economic sectors in application of these instruments if there is no strategy to encourage sustainable forest management with a commercial focus.
- Application of regulatory instruments depends on the availability of economic resources.

SO 3: Restructuring of the agricultural, livestock and forest production systems. The restructuring of production systems to increase forest carbon reserves starts with implementation of incentives; however, many times those incentives encounter the following barriers:

- The incentives may be out of step with agricultural policy and the country's budgetary restrictions because of a predominant and persistent culture of extensive agriculture and agricultural policy that gives preference to agricultural development, even in areas with a vocation for forestry. For this reason, the incentive design should take these elements into consideration.

SO 4: Development of incentives for protection and conservation and that discourage change in use of the soil. The development of financial-incentives mechanisms as compensation for environmental services and incentives to promote new technologies that help reduce emissions from deforestation encounter the following barriers:

- The mechanisms that do not provide an equitable approach can cause further social inequality within the communities.
- The mechanisms are designed and implemented with bureaucratic red tape and high transaction costs that small and medium owners must incur, which are disincentives for beneficiaries.
- Modernization and intensification of systems does not come with timely technical assistance.

SO 5: Strengthen the commercial framework and value chains for farm and forest products. These mechanisms could promote sustainable forest management but face the following barriers:

- The approach to put this this strategic option in place is not an integrated one and focuses solely on the forestry sector.
- Lack of compliance with forestry regulations also limits widespread adoption of sustainable forest management.

SO 6: Improve territorial governance and support planning processes of indigenous territories. Stop the advance of the agricultural frontier, one of the main causes of deforestation. The barriers identified are these:

- Creation of conflicts among territorial authorities.
- Problems with land tenure framed in the restructuring processes of indigenous territories. These two elements are extremely important because it is expected that these conditions are to be created in the process of preparation of the ENDE.

5.3 Description and justification of planned and ongoing activities under the proposed ER Program

The Emissions Reduction Program (PRE) will be based on the policies promoted by the government of Reconciliation and National Unity from the Environmental Strategy for Climate Change; livestock conversion, agroecological agriculture policy; protection and preservation of biodiversity, protected areas, and the National Forestry Program.

In Appendix 5.2-1, activities proposed for development in the ER (column D) are described and the goals they will achieve with the PRE (column F); their initial link with the strategic options (SO) (column A); and there is also a thorough link to the direct and underlying causes of deforestation and forest degradation (columns B and C). Actions planned and justification of their prioritization follow.

SO 1: Strengthen the institutional capabilities and the governing forestry structures (national, regional, municipal and indigenous territories): It is proposed that ENDE Working Groups 1 and 2 coordinate, monitor and evaluate actions at the intersectorial level directed toward conservation and sustainable management of forests and forest carbon reserves and that institutions improve their institutional presence at the subnational level, for which ER-PIN intends to provide them with means and instruments; that ER-REDD+ has an active mechanism to attend to complaints and claims under the principles of accessibility, efficiency, effectiveness and transparency of its actions. The proposed measures follow:

1.1 Reinforce and increase the capacity of forestry and environmental institutions at a national and subnational level to promote actions for protection and sustainable management of forests.

1.2 Broaden institutional coverage at a subnational level through support of means and equipment to the GTIs and institutions linked to the topic.

1.3 Implementation of a mechanism for claims and grievances related to deforestation and forest degradation.

1.4 Improve management of protect areas, forests, and private wildlife reserves.

1.5 Prevent and control forest fires.

OE 2: Adjustment and alignment of the political and regulatory framework: Actions are directed toward developing instruments for monitoring management of resources; the goal proposed is to increase the volume of trees registered in INAFOR's Forestry Information System. Concrete actions to be implemented include the following:

2.1 Improve and efficiently apply systems of traceability and forest certification: these actions are designed to help control exploitation of the forest resource and avoid illegal timber traffic.

2.2 Increase investment in forest control and application of the law to protect natural resources.

OE 3: Restructuring of the agricultural, livestock and forest production systems with a focus on adaptation to climate change: Proposed actions are directed to promotion and modernization of agricultural, livestock and forest production systems with a focus on adaptation to climate change; strengthening sustainable management of natural forests and promotion of forest plantations for energy purposes; development of environmental education programs and reforestation campaigns having a multicultural and ethnic approach, as well as forest extension plans ; and promotion of development and implementation of territorial planning and management systems based on territorial comparative advantages. Concrete measures to implement include:

3.1 Establishment of incentive (Forest Environmental Bond, or voucher) for conversion of productive systems (covers the following actions: Silvopastoral Systems, Agroforestry Systems, Forest Plantations, Forest Management, Forest Conservation).

OE 4: Development of incentives for protection and conservation and that discourage change in use of the soil: The ER-PIN will implement a forest-incentive system to promote conservation of the country's resources and improve the economy of the communities where actions are developed. Concrete measures to implement include:

4.1 Compensation for environmental services for carbon sequestration and conservation of water resources as co-benefit.

4.2 Credits for modernization and intensification of agricultural, livestock and forestry systems.

OE 5: Strengthen the commercial framework and value chains for farm and forest products
The proposal is to stimulate creation of associative and community businesses related to rural community tourism and alternative medicine and diversification of economic activities intended to reduce pressure on forest resources and improve the quality of life of the beneficiaries. Specifically, the following measures will be implemented:

5.1 Technological improvements and increase in commercialization and diversification of products.

5.2 Promote and strengthen monitoring systems for change in uses of the soil.

OE 6: Improve territorial governance and support planning processes of indigenous territories: Strengthening of governance mechanism is proposed at different levels of the country's government, the National Restructuring Commission, improvement in transfer of powers, forest and environmental management capabilities, regional initiatives toward institutionalizing a free, prior and informed consent system (FPIC). Specific measures to implement follow:

6.1 Increase in forest area under sustainable forest management through strengthening the system of forest governance and promotion of community forestry.

6.2 Management of areas under natural regeneration, concentrated in areas affected by Hurricane Felix.

6.3 Reforestation and forest restoration through National Reforestation Crusade.

5.4 Risk/benefit analysis of the planned actions and interventions under the ER Program

Each one of the activities that will be implemented with the Emissions Reduction Program (PRE) will be subjected to an analysis of risks and benefits, supported by the Environmental and Social Assessment Strategy (SESA) methodology, with the purpose of obtaining recommendations of the stakeholders for diminishing the risks and enhancing the benefits. The two workshops held analyzed the viability of the proposals or actions planned for PRE, leaving for the future prioritizing activities and analysis of social, environmental and financial risk (Appendix: 5.4-1).

Appendix 5.4-1 presents a matrix of the relationship of risks and benefits for the proposed PRE activities, considering that standouts among the risks are the resistance of loggers and livestock producers as well as the weak application of the environmental and communal property legal frameworks. This will be a challenge for Nicaragua since the PRE will work with activities attributable and nonattributable to the stakeholders in the territory.

6. Stakeholder Information Sharing, Consultation, and Participation

6.1 Stakeholder engagement to date on the proposed ER Program

To develop the Emissions Reduction Idea Note, a map of actors was used to identify the principal interests and participation level of the stakeholders that will interact on the problem of deforestation and forest degradation in the preparation phase of the ENDE-REDD+ strategy. It was based on the map of actors developed in the R-PP process and updated in the present stage of ENDE-REDD+ development with participation of working teams that coordinate at the regional level and with the SESA task forces. The methodology used to identify and describe the actors consisted in performing a detailed inventory of institutions and their link to ENDE, carried out in workshops and working sessions. Ten groups of different actors, the GTIs, municipalities, university branches, community organizations and offices of central government institutions were identified.

A list of the 10 groups of actions follows and details of the members of each can be found in Appendix 6.1-1.

1. Government actors from different levels
2. Forestry and agroforestry communities
3. Private platform of forest owners
4. Agricultural productive sector
5. Academic sector
6. Social movements
7. Mass media
8. Military and national security institutions
9. External cooperation
10. Informal and illegal commerce and land sector

It has been possible to confirm in these meetings that, in general, the sectors are interested in and committed to the ENDE-REDD+ proposals, verified by the ER-PIN approval letters send by the regional governments.

6.2 Planned outreach and consultation process

ENDE-REDD+ has as a principle the inclusion of safeguards and operational standards of the World Bank, congruent with the principles and policies of the government of Nicaragua that restore the right of full participation of male and female actors, integrating the concept of effective participation and free, prior and informed consent (FPIC).

In this framework are the articles and legal instruments that follow: Articles 5, 7, 50 and 60 of the Political Constitution of the Republic; Law 28 on autonomy; Law 445, property system of indigenous peoples and ethnic communities as an expression of the recognition of participatory democracy, as well as the right to participate in equal conditions in matters of public management of the state. Nicaragua is also a signatory to Convention 169 of the ILO, whose purpose is to protect the rights of those peoples and guarantee respect of their integrity.

Considering the subregional area of influence that the Emissions Reduction Program has, a two-level consultation process was designed: one at a regional level and another with Working Group I. The consultation methodology that Nicaragua as followed for ER is a continuous and permanent process that overlaps with the dialogue and consultation process implemented for development of ENDE-REDD+.

In the autonomous regions, the consultation process developed consists of two induction sessions and two consultation workshops. The induction sessions were held with regional work teams, in which the path to be followed for approval of the Emissions Reduction Program was clearly described.

In the dialogue and consultation workshops held August 11 and 18, 2015, in the RACCS and RACCN, respectively, a total of 126 stakeholders participated. Minutes of these workshops can be accessed at http://www.sinia.net.ni/multisites/ende/publicaciones.html.

On August 26, a consultation was held with Working Group I, which, in general, approved the ER-PIN document. The minutes of this work session can be found via the link: http://www.sinia.net.ni/multisites/ende/publicaciones.html.

7. Operational and financial planning

7.1 Institutional arrangements

For implementation of the Emissions Reduction Program, MARENA will be the coordinating government institution since it directs the environmental policy and promote sustainable use of the nation's natural resources. MARENA will lead the planning, national coordination and the registration of indicators.

In the autonomous regions, in accordance with Lay 28 and Law 445, a subnational plan creating and strengthening institutional and intersectorial capabilities to reduce deforestation and forest degradation in the context of autonomous development will be implemented. Thus, the entity

responsible for execution of PRE will be the regional office of MARENA, together with the Secretariat of Natural Resources and Environment (SERENA) and the indigenous territorial governments (GTIs), with the support of the Regional Commission for Natural Resources and Environment and the municipal governments—through the Environmental Management Units. [14] The relationship among the entities mentioned should continue and be strengthened, which has been quite positive in the design of ENDE-REDD+.

The program will have to do with two types of jurisdictions; one is represented by the autonomous regions of the Caribbean coast and the other by the municipalities that are outside of those regions, where central government institutions will establish direct coordination with local or municipal governments.

The relationship of responsibilities is presented in Appendix 7.1-1.

7.2 Linking institutional arrangements to national REDD+ implementation framework.

For PRE implementation, the system of institutional arrangements used by ENDE-REDD+ will continue, which has been validated and is effective.

Working Group I, with its political-strategic role, affects processes of decision making at the highest level, opens opportunities for ENDE to have an impact on laws, policies and the development processes of state institutions as well as regional and indigenous and Afro-descendant territorial governments that are directly involved in the regulation, control and management of natural resources and all those factors that are determinant for generation and reduction of greenhouse gases. It is the link with the production cabinet and from there to the presidency.

Working Group II has the role of planning, mainly alignment and linkages among the policies and national and regional strategies with the development of actions in the field. It gathers the needs, uncertainties and declarations from the different productive sectors and adjusts them to the government's political vision and the ENDE-REDD+ strategies. It plays an important role of coordination between political strategy and implementation and dialogue with stakeholders.

Working Group III has an important role in direct dialogue with the stakeholders; participation should be broad and open, with representation of all sectors at the regional level. It has responsibility for implementing actions in the field, aligning them with the different direct stakeholders involved in the management, use and exploitation of natural resources.

[14] Created through Decree No. 68-2001, published in *La Gaceta* No 144 on July 31, 2001, as an instance of support in decision making and compliance with environmental management actions.

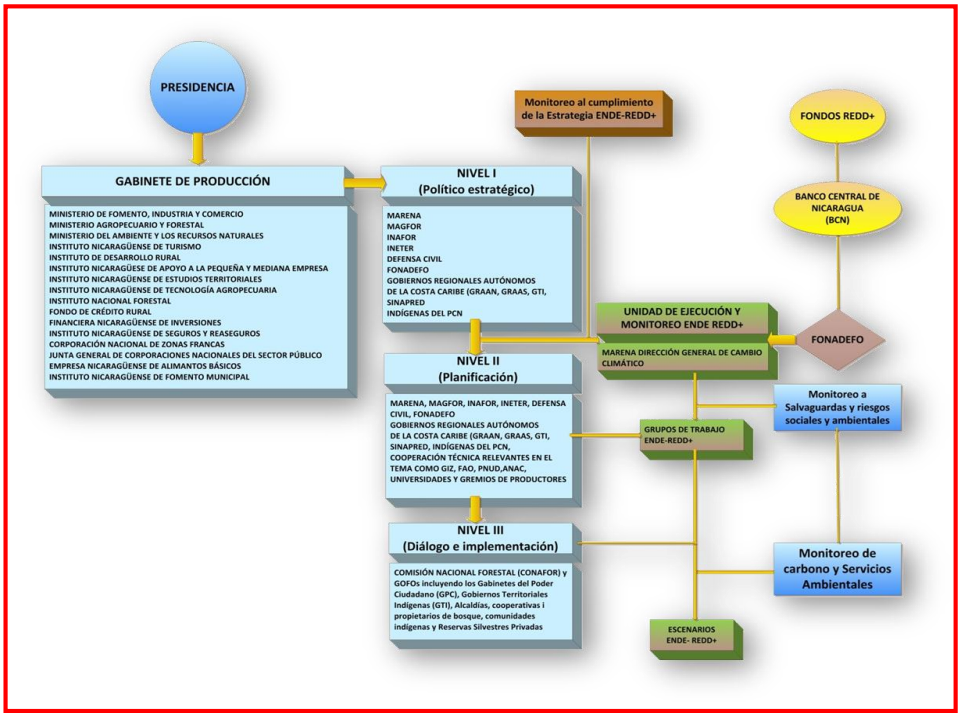

Figure 7.1-1 Schematic of ENDE-REDD+ operation

7.3 Capacity of the agencies and organizations involved in implementing the proposed ER Program

The different institutions involved in the PRE have demonstrated experience and capabilities in the management of resources in the country's autonomous regions.

MARENA, MAG, MEFFCA and INAFOR are instructions of the central government that have regional offices, which is very important for implementation of ER-PIN and the Environmental Bond. Nevertheless, improvement in institutional performance is necessary, focusing on presence at the municipal level and principally on the case of FONADEFO, which should strengthen its presence at the regional level.

The indigenous and Afro-descendant territorial governments have offices and administrative personnel, diagnostic studies and development plans, which provide a good foundation for implementation of the PRE.

7.4 Next steps to finalize the proposed ER Program implementation design (REL/FRL, ER Program monitoring system, financing, governance, etc.). Provide a rough timeline for these steps.

Preparation of the Idea Note of the Emissions Reduction Program has been taken to the autonomous regions for consultation, a process described in section 6.2.

7.5 Financing plan (in US$ million)

Appendix 7.5-2A and 7.5-2B present the ER-Nicaragua financial plan in respect to use and source of funding for the ER-P, a preliminary proposal that must be completed and improved during the process of development of the ER-P.

Administrative and institutional costs for each PRE activity are listed in Appendix 7.5-1A. These were estimated using as a reference the national budgets of MARENA, INAFOR and FONADEFO, projecting an average value for the life of the ER-P, considering that its implementation at the subnational level equals about 60% of the national budget. The investment costs for implementation of ER Program actions are given in Appendix 7.5-1B, using as a reference values of investment by hectare for each activity in the area where the program is implemented.

It should be noted that the highest administrative and institutional costs are associated with the action “Farm intensification credit.” This activity aims at reducing deforested areas through modernization and intensification of agriculture, livestock and forestry systems. This amount considers the associated administrative and institutional costs related to research, development and extension necessary to get the program underway. Similarly, the administrative and institutional costs of the rest of the activities are for financing tasks under responsibility of the government in implementation of the actions (extension, control, permits, contracts and others). As for investment costs, agroforestry activities are the highest.

As indicated in Appendix 7.5-2A, the total cost of ER-P implementation for the 10 years is US$346.3 million, of which US$255 million corresponds to investment expenses (74%) and US$88.4 million to administrative and institutional costs (26%).

As far as sources of financing (Appendix 7.5-2B), it is estimated that US$78.1 million (23%) will come from the national budget, some US$55.7 million (16%) from a possible transaction for emissions reduction with the Carbon Fund, plus another US$55.7 million (16%) from multilateral, bilateral or voluntary carbon transactions not yet identified. These funds will be insufficient; therefore, to cover the cost of ER-P requires raising US$142.2 million (41%) coming from private

investment for social and environmental impact to complement the ENDE which can also consider investments coming from development projects and the financial sector.

8. Reference Level and Expected Emission Reductions

8.1 Approach for establishing the Reference Emission Level (REL) and/or Forest Reference Level (FRL)

Construction of the REL/FRL is based on the guidelines established by the Intergovernmental Panel on Climate Change (IPCC), the United Nations Framework Convention on Climate Change (UNFCCC) and the Carbon Fund Methodological Framework (MF). The REL/FRL is consistent with the National Greenhouse Gas Inventory, which is being updated, while both are based on the guidelines from the 2006 IPCC for National Greenhouse Gas Inventories. At the same time, care has been taken to us the same land-use categories and methodological questions to calculate CO_2e emissions.

According to the Carbon Fund Methodological Framework (MF), the emissions reduced by an Emission Reduction Program (ER-P) should be reported in relations to the Reference Emissions Level (REL) and Forest Reference Level (FRL).[15]

For the Conference of the Parties (CP),[16] the REL/FRL are "reference points to assess the performance of each country in the execution of REDD+ activities." These should be expressed in tons of carbon dioxide equivalent per year[17] and must be established in a transparent manner, providing complete information and explanations about its development.[18]

The REL/FRL that the country is presenting to the Carbon Fund through the ER-P is of subnational coverage and will have a life of 10 years, which is in line with the Reference Period, which begins in 2000 and ends in 2010, corresponding to the duration proposed for the program. It is important to point out that the REL/FRL has a gradual approach, allowing this to evolve according to adjustments made in response to improvement in data[19] and methodological aspects. Following is a flow chart that illustrates the general process of constructing the REL/FRL proposal.

While it is true that the REL/FRL of ENDE-REDD+ is still in a preparation phase, it is believed that the REL/FRL of the Emissions Reduction Program will be consistent with the first since the same

[15] Carbon Fund Methodological Framework, Section 3.3
[16] UNFCCC, Decision 12/CP.17
[17] Indicator 10.1 of the Carbon Fund Methodological Framework
[18] UNFCCC, Decision 4/CP.15, par. 7 and Decision 12/CP.17, par. 9
[19] For future phases, development of precise allometric models is planned for different types of forest in the area of the ER Program.

technical and methodological guidelines, as well as the information input, are being followed (input data, type of gases, reservoirs, causes of deforestation and scope) in its development. The only variant is the area covered, but once prepared, the REL/FRL of the program will form an integral part of the program at the national level.

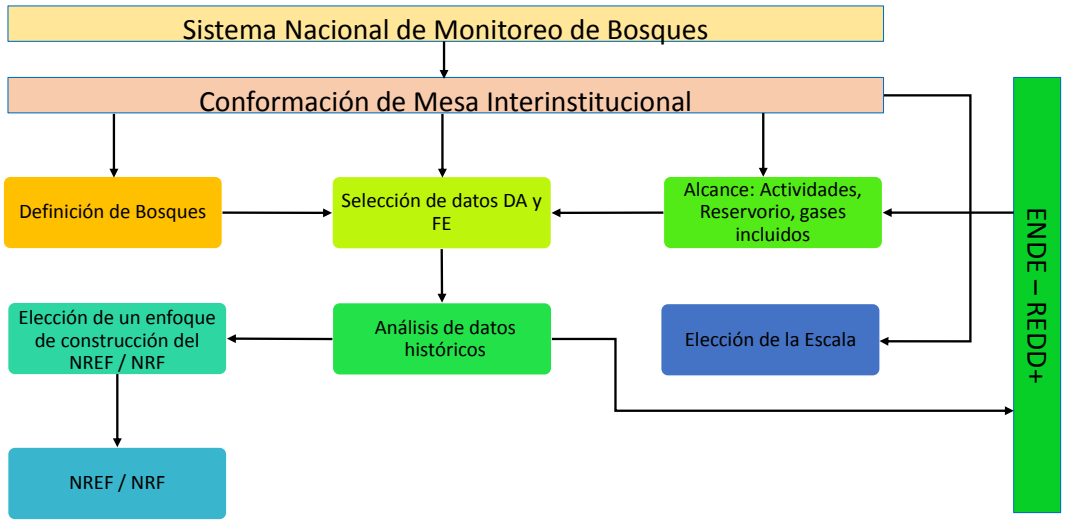

Figure 8.1-1. Flow chart of work for preparation of the Reference Emissions Level (REL) and Forest Reference Level (FRL). Adapted from ONU-REDD. 2015.

The REL/FLR is directly linked to the National Forest Monitoring System, which constitutes a fundamental part of the National Strategy for Avoided Deforestation (ENDE-REDD+). In the context, the first step to establishing the REL/FLR has been designation of the Interinstitutional Task Force on ENDE-REDD+ to construct the reference level in each one of its stages. The Interinstitutional Task Force has validated the definition of "forest" proposed in the R-PP and has confirmed continued use of that definition. The task force has also facilitated information concerning activity data (AD) and the emission factor (EF) and has defined the scope of activities and CO_2e reservoirs. Data analysis has been done, using the methodologies established by UNFCCC for preparation of REL/FLR.

A brief description of general stages developed in the process of establishing REL/FLR follow, including some pertinent definitions.

Definition of forest. Area with tree cover of 1 ha, with crown density equal to 20% and tree height greater or equal to 4 m. In this document, forest is understood as forested lands, which include conserved forests and degraded forests. This definition is what the country has established for the presentation of national reports to international organizations with which the country has

established agreements and is the definition the country uses in the preparation phase (R-PP, Nicaragua).

Activity Data (AD). The AD is represented by changes in the uses of the soil determined through historic analysis, using a consistent methodology of maps of soil use for 2000, 2005 and 2010. These were provided by the Central American Commission for Environment and Development (CCAD), which has generated these valuable inputs through the REDD+/CCAD/GIZ Program. The maps used to prepare the REL/FRL are from 2000, 2005 and 2010. The images used to prepare the soil use maps cover a 12-year period, since in preparing the map for the year 2000, information from some images for the year 1999 were used in order to complete the information for that year's map—there were images for the year 2000 that were contaminated by clouds and required substitution with images of better quality. The same thing happened with the map for the year 2010—in order to complete information, it was necessary to use images from the year 2011.

Currently, methodology is being developed for validation and statistical analysis to calculate the precision of the classifications and the soil use maps used for construction of the REL/FRL. These analyses are expected to be available for use in for later stages.

The land-use maps have been prepared using a combination of remote-sensing techniques using LandSat images, with spatial resolution of 30 m and the use of data derived from the National Forest Inventory (INF, 2007–2008) done by the National Forestry Institute (INAFOR). Currently, the country is working on development of a map of current land use, utilizing high-resolution images (5 m)—RapidEye; however, this will not be used in construction of the REL/FRL since it is contrary to what is established in the Carbon Fund MF, specified in Section 3.3, Indicator 11.1, which sets the end date of the Reference period as the most recent date prior to 2013 for which forest cover data is available. It is expected that the map on land use will be finished and published by the end of 2015 and its information can be integrated in future improvements of REL/FRL.

Emission Factor (EF). The EF used to calculate emissions is derived from INF (2007–2008) and equals 55.88 tC/ha; it only counts the carbon in the aboveground biomass and has been used as a generic value that encompasses the different types of forests in the ER Program area. The EF presented is considered a conservative value for the characteristics of these kinds of forests; however, it is possible that in the future when adjustment are made to the REL/FRL, this value can be more exact and may be increased. Use of this EF directs that the forest becomes a non-forest when it loses it total tree cover.

Given that both the Carbon Fund and the UNFCCC do not prevent countries from making adjustments in their REL/FRL and that the Reference Level of the ER Program presents the characteristics of having a gradual approach, it is expected that in the future the country will

develop allometric models and precise EFs for each type of forest, working with national universities.

Scope. The REL/FRL includes data on deforestation occurring in the country during the Reference Period (2000–2010), which means that forest degradation is not yet being considered. As far as inclusion of reservoirs, the focus was fundamentally on carbon contained in the aboveground biomass, excluding the reservoirs of organic carbon in the soil, litter and necromass. These were not included in the REL/FRL because the records necessary for their analysis are not available. The estimated emissions center only on CO_2e; other greenhouse gases such as methane and nitrous oxide are excluded. Forest degradation is an important phenomenon because it generates loss of the country's biological richness; however, it has not been included in the ER-P. It must be left to the future when there is more information about this phenomenon and the methodologies to quantify it are defined.

Scale. The REL/FRL is a subnational type, covering only the area affected by the ER-P (see Figure 4.1-1, section 4), which is a priority area for the National Strategy for Avoided Deforestation (ENDE-REDD+). This subnational scale is considered a provisional measure in accord with the UNFCCC Decision;[20] once the national REL/FRL is prepared and finalized, the ERPA will be integrated into it.

Analysis of historic data. The calculation of CO_2e emissions from deforestation has been carried out by determination of a historic average of emissions that occurred in the Reference Period, which is 10 years. As a greater amount of data of explanatory variables of deforestation and forest degradation are obtained, along with improved methodologies on how to measure the latter—and providing for occurrences of national circumstances that significantly impact the landscape—development of econometric models will be considered to estimate emissions through multicriteria assessments that integrate forest degradation.

The emissions in the historic period have been calculated using a simple methodological approach proposed in the IPCC (2006).

$$Emissions\ (CO2e) = AD\ x\ EF$$

Where: CO_2e: Emissions of carbon dioxide equivalent (in millions of tons); AD: Data on activity (Difference in expanse of forest cover, in hectares); EF: Emission factor (55.88 t C/ha multiplied by 3.66 to convert carbon to CO_2e).

The calculations of uncertainties about emissions will be estimated during the design phase of the ER Program, using statistical parameters applied to the AD and the INF database, which has

[20] UNFCCC, Decision 12/CP.17, par. 11; Decision 13/CP.19, Appendix, par. 2 (d)

approximately 1,200 plots distributed systematically over the entire national territory. As for the EFs, there will be a thorough review of the different FEs, including the initiative to develop an allometric program with national universities for different types of ecosystems. Calculations on losses and gains in forest cover from 2000 to 2010 will be carried out under IPCC guidelines.

It is expected that future adjustments of the REL/FRL will integrate information related to the impact that fires, advance of the farm and livestock frontier (change in soil use) and growth in human settlements have on forest cover, as well as programs and projects related to the agricultural sector Information related to other carbon reserves will also be incorporated—all this tied to revision and analysis of information available.

The country is currently in the process of remeasuring the permanent sample plots (PPM) established during data gathering for INF (2007–2008). This information will be used to integrate and strengthen the analysis of growth of biomass and therefore carbon stored.

All of the aforementioned information will be systematized and published through the country's national platform, made up of the Ministry of Environment and Natural Resources (MARENA), the National Forestry Institute (INAFOR), Ministry of Agriculture (MAG), Nicaraguan Institute of Territorial Studies (INETER) and the National Institute for Development Information (INIDE), as well as entities of the territorial governments where the ER Program is located. This information will be statistically analyzed to measure the level of correlation with the dynamics of deforestation and feasibility of including it in the process of adjusting REL/FRL.

8.2 Expected REL/FRL for the ER Program (ER-P)

In general terms, forest cover in the area proposed for the ER Program continues to decrease, showing a greater reduction in forests during the first half of the Reference Period (2000–2005); The indication is that the process of loss of forest cover has been slowing down over time (see Table 8.2-1): the level of forest cover loss was reduced by 33% during the second half of the period analyzed. The levels of forest loss are proportional to the emissions, which means that to the degree that forest is lost, the CO_2e emissions increase.

Table 8.2-1. Evolution of forest cover and carbon reserves in CO_2e in Nicaragua during the Reference Period (2000–2010)

A Subnational region	Reference Period						Annual emissions ($MtCO_2e$)[21]
	Year 2000		Year 2005		Year 2010		
	B	C	D	E	F	G	E=(C-G)/12
	Surface (ha)	$MtCO_2e$	Surface (ha)	$MtCO_2e$	Surface (ha)	$MtCO_2e$	
Subnational Region 1	2,709,772	554,204,721	2,211,023	452,200,192	1,956,905	400,227,718	-
Subnational Region 2	1,521,892	311,258,576	1,263,396	258,390,841	1,012,799	207,138,498	-
Total Subnational Region	**4,231,664**	**865,463,297**	**3,474,419**	**710,591,033**	**2,969,704**	**607,366,216**	**21.5**

Gross emissions of the ER Program area equal to **21.5 $MtCO_2e$/year**; this value is the product of weighting the emissions in the Reference Period (2000–2010). Subnational Region 1 contributes about 65% to the total of emissions of the ER Program's area of impact. It is important to note that the calculation of the estimates of annual emissions from deforestation are similar to the estimates made by Winrock International,[22] which estimated 23.4 $MtCO_2e$/year.

9. Forest Monitoring System

9.1 Description of approach and capacity for measurement and reporting on ERs

The National System of Forest Monitoring (SNMB) is in the design phase and, although it will be national coverage, it will have a component or extension with information specific to the subnational area to be included in the ER Program. Coordination is with the current institutional platform of the National Environmental Information System (SINIA) (Nicaragua), administered and organized by MARENA based on the General Law of the Environment and Natural Resources (Law 217, Articles 30 and 31), with government entities in charge of monitoring the 68 environmental indicators grouped in 10 thematic areas. SINIA has made collaboration agreements with different bodies for generation and exchange of information, so inclusion of SNMB in this platform will take advantage of the technological structure established in SINIA.

[21] Em = (C-G)/12. Where: Em: Emissions ($MtCO_2e$/year); C: Column of Emissions in the year 2000; G: Column of Emissions in the year 2010; 12: Number of years analyzed in the period (12 years).; The images used for development of the maps of soil use for the years 2000–2010, they include images of the years 1999–2011.

[22] https://forestcarbonpartnership.org/technical-decision-support-and-training-material

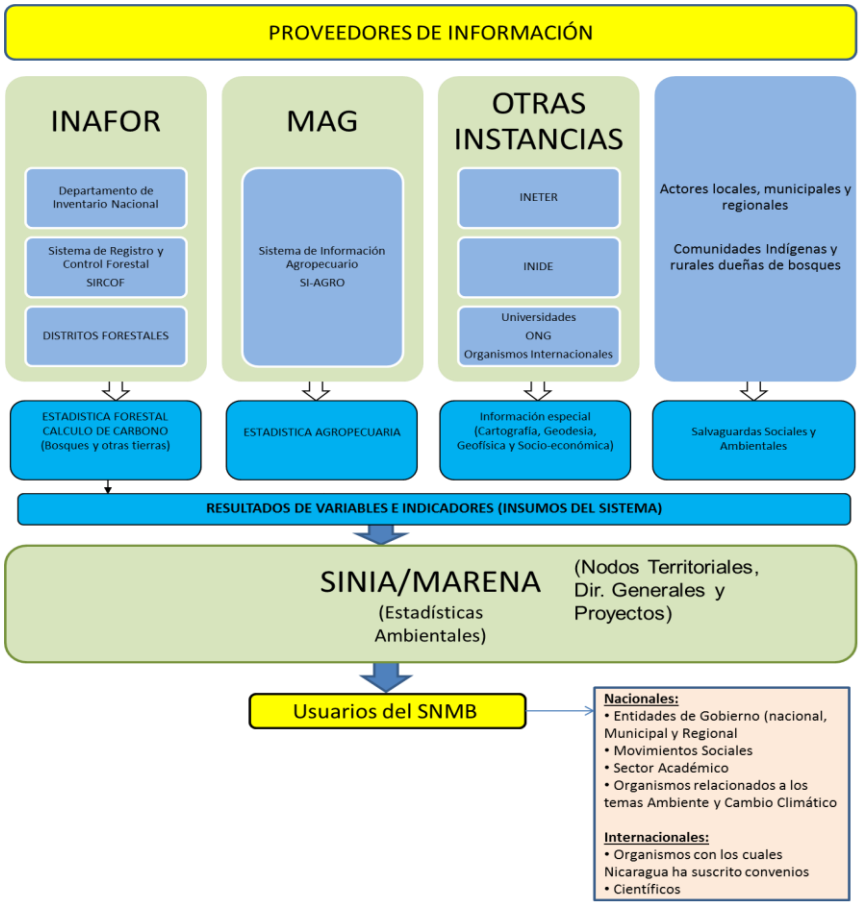

Figure 9.1-1. Institutional Platform of National Forest Monitoring System (SNMB)

The institutional platform for Forest Monitoring is made up of the government institutions INAFOR, MARENA, MAG, INETER, INIDE, municipalities, regional governments, indigenous communities and other non-governmental entities (universities and NGOs). Those involved will provide statistical information to the system, represented in layers of geographic information and variables and indicators in forest, agricultural, socioeconomic and environmental areas, each contributing according to their competencies. Collaboration will be resumed on agreements ruled by standards and protocols with these institutions for exchange of information related to the system (see Figure 9.1-1).

For future assessments of changes in the landscape over time, including deforestation and reforestation, the SNMB will be used, which will incorporate use of technological tools based on GIS and remote sensors. It is planned to continue application of the protocols implemented to develop the soil use maps (generation of activity data). However, as improvements are made in

them, these will be incorporated. The use of LandSat images will continue as long as we do not have at least three soil use maps developed from high-resolution images.

For construction of the Emissions Reference Level, directives of UNFCCC, IPCC and the Carbon Fund Methodological Framework will be used, guaranteeing approval of and consistency with international agencies.

During the design process, it is probable that new indicators will be identified for incorporation into SNMB that respond to co-benefits related to biodiversity, food security and hydrographic units. In this case, development of methodological specifications will be undertaken, considering the baseline and the corresponding institutional owner. All UNFCCC and IPCC criteria and guidelines will be considered in the design so that data generated will be congruent with national and international standards for developing the report on inventory of greenhouse gases and other topics related to forests.

The appendix section includes a timeline related to the products required for development of the monitoring, reporting and verification system (Appendix 9.1-1).

The SNMB conceptual design will incorporate elements of Spatial Data Infrastructure (SDI)[23] and ensure the use of Open Geospatial Consortium (OGC)[24] methodologies and protocols for interchange and interoperation of data and processes. The preliminary concept for SNMB is a Geographic Information System (GIS) on the Web platform and support tools for decision making.

Additionally and in a manner complementary to SNMB, development of a Safeguards Information System (SIS) is planned that will include principles, criteria and indicators, using inclusive indirect methods such as surveys and other statistical data that will be determined periodically, at least twice during the ERPA, to monitor compliance with social, environmental and indigenous people safeguards in the framework of UNFCCC decisions, the Universal Declaration of the Rights of Indigenous Peoples and the ILO Convention 169, ensuring their application in implementation of the ENDE-REDD+ Program.

9.2 Describe how the proposed ER Program monitoring system is consistent with the (emerging) national REDD+ monitoring system.

The monitoring system for the Emissions Reduction Program will be an integral part of the National Forest Monitoring System (SNMB) The subnational character of the Emissions Reduction Program will be represented as a component within the SNMB, located in the National Environmental

[23] SDI is an aggregate of technologies, policies, standards and human resources for acquiring, processing, storing, distributing and improving the use of geographic information.
[24] Its goal is to define open and interoperation standards within the Geographic Information Systems and the World Wide Web.

Information System (SINIA-MARENA), being organized and administered by an interinstitutional technical team in keeping with the policies and lines of work established in the National Human Development Plan and the Environmental and Climate Change Strategy (see Figure 9.1-1, section 9.1)

9.3 Describe how the proposed ER Program monitoring system is consistent with UNFCCC guidance available to date and with the emerging Methodological Framework of the FCPF Carbon Fund.

The proposal for the SNMB conceptual design has as a fundamental basis compliance with the guidelines of the United Nations Framework Convention on Climate Change, the most recent IPCC guidelines and the Carbon Fund Methodological Framework. The Activity Data coming from satellite images and the Emission Factors from data in the National Forestry Inventory will be used in a systematic and regular way.

9.4 Describe any potential role of Indigenous Peoples or local communities in the design or implementation of the proposed ER Program monitoring system.

Development of the National Forest Monitoring System will include a focus on community monitoring, ensuring the role of the indigenous territorial governments (GTIs) and rural communities. The GTIs are integrated in all of the commissions and task forces for the design of SNMB and are consulted with respect to carrying out the different ENDE-REDD+ activities in their territories.

The tools developed for territorial monitoring in the North Caribbean Coast Autonomous Region (RACCN) will be used, specifically for the communities of Sahsa, Miguel Bikan and Waspam, as part of a pilot project of the Center for Autonomy and Development of Indigenous Peoples (CADPI), in Alliance with the organization Filipina Tebtebba. Its purpose is to demonstrate that the community can generate a data and information system that is useful to regional councils and the regional government.

9.5 Describe if and how the proposed ER Program monitoring system would include information on multiple benefits like biodiversity conservation or enhanced rural livelihoods, governance indicators, etc.

The National Forest Monitoring System proposed for the ER-PIN Program will supply information about socio-environmental indicators and variables, at first from those already established in the official statistical platform of the National Environmental Information System (SINIA) for biodiversity, protected areas, soil uses, hydric resources, environmental quality and climate change.

Data is available on natural regeneration, forest plantations, ecosystems, environmental restoration, environmental services and protected areas, as principal places where biodiversity is conserved in situ; there are also indicators for knowledge and monitoring the use, sustainable management and conservation of biodiversity, richness, and variety of wildlife species.

10. Displacement

10.1 Description of the potential risks of both domestic and international displacement of emissions (leakage)

In order to mitigate probable displacements, the design of program activities integrate promotion of conservation and management of forest areas inside and outside of protected areas through activities such as payment for environmental services, community forestry, reforestation, plantations for energy purposes and sustainable forest management.

Activities will also be aimed at improving the efficiency of agricultural production systems, so that those who promote this type of productive systems do not have a need for spatial expansion (seeking more land) that could affect the forest resource even more. Such activities look to intensify agricultural production with the help of credits, technological improvement, use of agroforestry systems such as cocoa, and development of silvopastoral systems.

11. Reversals

11.1 Activities to address risks of reversal of greenhouse gas benefits

In order to deal with the unforeseen risks, 20% of the avoided emissions from deforestation will be used as security reserves, equaling 2.53 $MtCO_2e$/year, which will allows the country to cushion possible losses that could arise.

Vigilance over occurrence of potential reversals will be carried out through the National Forest Monitoring System, which is being designed within the framework of ENDE-REDD+.

Principal risks identified include:

- *Forest fires.* This factor of deforestation represents one of the greatest risks for conservation of carbon stores in the country, mainly during summer, when temperatures reach very high levels and fires spread more easily. To reduce this problem, the country

has an early alert system, which detects hot spots using remote sensing, and then activates the National System for Disaster Prevention, Civil Defense and other relevant entities.

- *Agricultural expansion.* One of the principal drivers of deforestation is change in use of the soil to implement agricultural actives. The program will make efforts to avoid spreading of such activities in forest zones, coordinated with the MEFCCA Livestock Conversion Program that aims to improve production systems through modernization and intensification of the production model in the agricultural sector.

- *Pests and diseases*. These represent a threat to coniferous forest in the northern region of the country and part of the northern Caribbean coast, caused by *Dendroctonus frontalis* (southern pine beetle) and ips engraver beetles.

During and after the implementation period of the ER Program, the country will report reversions that occurred in that period to the Carbon Fund.

The principal actions to develop to reduce the mentioned risks include:

- Development of a forestry-sector value chain to give added value to forest products, thereby improving competitiveness of forestry against other economic categories with high costs of opportunity and improvement of the sector's technological capacity.
- Strengthen the program of forest incentives to promote conservation of the country's forest resources and improve the economy of local communities.
- Strengthen production systems with a focus on agroecological practices (silvopastoral and agroforestry systems).
- Diversify economic activities to reduce pressure on forest resources and improve stakeholders' quality of life.
- Increase investment in forest control and application of the law to protect natural resources. This activity has an added value and will enable better control over occurrence of forest fires.
- Strengthen forest governance, the efficiency of control systems and forest traceability that the country develops.
- Strengthen sustainable management of natural forests, which will help counter the impact of forest pests.
- Promote forest plantations for energy purposes.
- Strengthen the legal framework aimed at land-use planning.
- Strengthen the level of coordination of the country's public policies with the instruments designed for conservation of natural resources.

12. Expected emission reductions

12.1 Expected Emission Reductions (ERs)

Tables 12.1-1A and 12.1-1B show the emission reductions through the actions proposed by the country through the Emissions Reduction Program for a period of 10 years These actions are oriented to avoid deforestation (Tables 12.1-1A), and enhance carbon stocks (Table 12.1-1B).

It should be noted that of the 15 goals established in the six strategic objectives of ENDE-REDD+ (see Appendix 5.2-1), a reduction in emissions was determined for only nine goals: five goals intended to avoid deforestation (1.4, 4.1, 4.2, 6.1.1 and 6.1.2) and four goals intended to improve carbon reserves (3.1.2, 6.3, 3.1.1 and 6.2). Although the actions corresponding to strategic objectives OE1, OE2 y OE5[25] are oriented toward avoiding deforestation through improvement in governance, the adjustment, adjustment of the regulatory framework, improvement in value chains and control of illegal logging and forest fires, the potential impact on reduction of emissions of PRE is not included. The reason for the exclusion is basically that the relevant information that would permit arriving at such an estimate is not available.
With implementation of the proposed actions, reductions/removals of 19,683 MtCO2e during five years (3,936 MtCO2e/year) are expected to be reached, which means a reduction of 18.2% of the total emission produced by deforestation per year (Table 12.2-1). The emission reduction for avoided deforestation was estimated assuming a 50% reduction from the historic level of the deforestation rate between 2000-2010; which means that the deforestation rate will decrease from 3.27% to 1.6%. In the same way, it is expected that the deforestation reduction activities will have an effectiveness in its implementation of 70% of the ER Program, which implies reductions equivalent to 13.778 MtCO2e in five years (2,785 MtCO2e/year), signifying an effective reduction of 12.8% in total annual emissions.

[25] SO1. Strengthen the institutional capabilities and the governing forestry structures (national, regional, municipal and indigenous territories.
Goal 1.1 ENDE Working Groups 1 and 2 coordinate, monitor and evaluate actions at the intersectorial level directed toward conservation and sustainable management of forests.
Goal 1.2 Improve institutional presence at the subnational level.
Goal 1.3 ER-REDD+ has an active mechanism to attend to complaints and claims under the principles of accessibility, efficiency, effectiveness and transparency of its actions.
Goal 1.5 Fires prevented and controlled in 20% of affected areas.
SO2. Adjustment and alignment of the political and regulatory framework
Goal 2.1 Greater surface volume of trees registered in INAFOR's Forestry Information System to provide better control over management of forest resources.
SO5. Strengthen the commercial framework and value chains for farm and forest products
Goal 5.1 Improvement in competitiveness of 30% of small and medium businesses in forestry, agricultural and livestock-raising sectors at subnational level.
Goal 5.2 A monitoring system established for changes in soil use.

Table 12.1-1A. Avoided deforestation (deforestation rate reduction to 50%) actions to implement in the ER Program

Activity	Forest cover (ha)	Emission Factor (t C/ha)	Avoided Emissions In 10 years (t CO2e)	Avoided Emissions in 5 years (t CO2e)	Avoided Emissions With 70% Effectiveness of ER-P
Conservation/Management of Protected Areas[1]	500,000.00	55.88	13,446,490.53	7,574,130.31	5,301,891.22
Environmental Service Payments[2]	100,000.00	55.88	2,677,621.10	1,514,826.06	1,060,378.24
Farm Intensification Credits[3]	70,000.00	55.88	1,874,334.77	1,060,378.24	742,264.77
Community Forestry[4]	70,000.00	55.88	1,874,334.77	1,060,378.24	742,264.77
Sustainable Forest Mgt.[5]	70,000.00	55.88	1,874,334.77	1,060,378.24	742,264.77
Total	**810,000.00**	**Total**	**21,747,116**	**12,270,091**	**8,589,064**
		Annual	**2,174,712**	**2,454,018**	**1,717,813**

[1] Goal 1.4. 500,000 ha of forest in protected areas implement their management plans for conservation of forest carbon reserves.
[2] Goal 4.1. Reduced emissions on 100,000 ha through a compensation service for environmental services.
[3] Goal 4.2. Deforestation areas reduced through credits on 70,000 ha, improving livelihoods in the communities
[4] Goal 6.1.1. 70,000 ha of forest managed under community forestry approach
[5] Goal 6.1.2. Area of forest under sustainable forest management increased by 70,000 ha.

Table 12.1-1B. Carbon Stocks Enhancement Actions to implement in the ER Program

Activity	Forest and SAF cover (ha)	Emission factor (t C/ha)	Carbon stock enhancement in 10 years (t CO2e)	Carbon stock enhancement in 5 years (t CO2e)	Carbon stock enhancement with an effectiveness of 70% on ER-P
Reforestation and Natural Regeneration (Incentive)[1]	100,000.00	4.21	8,474,730.00	2,311,290.00	1,664,128.80
Reforestation and Natural Regeneration (CNR)[2]	100,000.00	4.21	8,474,730.00	2,311,290.00	1,664,128.80
Agroforestry Systems[3]	100,000.00	2.00	4,026,000.00	1,098,000.00	790,560.00
Silvopastoral Systems[3]	70,000.00	2.00	3,037,800.00	768,600.00	553,392.00
Natural Regeneration Management (H. Felix) [4]	40,000.00	4.21	4,360,633.80	924,516.00	665,651.52
Total	**410,000.00**	**Total**	**28,373,894**	**7,413,696**	**5,337,861**
		Annual	**2,837,389**	**1,482,739**	**1,067,572**

[1] Goal 3.1.2. Carbon stock has been increased through incentives for reforestation of 100,000 ha.
[2] Goal 6.3. Carbon stock increased through reforestation of 100,000 ha in national crusade
[3] Goal 3.1.1. Forest carbon reserves increase through promotion of 70,000 ha of silvopastoral systems and 100,000 ha of agroforestry systems.
[4] Goal 6.2. 40,000 ha of natural regeneration managed in areas impacted by Hurricane Felix.

12.2 Volume proposed for the FCPF Carbon Fund.

In Table 12/2-1, Nicaragua proposes an estimate of 13,778 $MtCO_2e$ (2,785 $MtCO_2e$/year) to the Carbon Fund during the period of the Emission Reduction Program (five years). Of this amount, 2,755 $MtCO_2e$ in five years (0,551 $MtCO_2e$/year), will be deducted, amounting to 20% of the total proposal, to remain as a security reserve, or buffer, to use in case compensations are required for involuntary losses or emission displacements. The net total to offer the Carbon Fund is 11,022 $MtCO_2e$ (2,228 $MtCO_2e$/year). Considering a value of US$5/tCO2e, an income of US$55,114,603is expected.

Table 12.2-1: Summary of carbon (in tCo2e) accumulated by actions of ER-P in Nicaragua its offer to the Carbon Fund, considering the discount for compensations and projecting a price of US$5/tCO2e

Actions	Area under management (Ha)	Annual area (Ha)	Type of projection	Carbon accumulated in 10 years (t CO2e)	Carbon accumulated in 5 years (t CO2e)	Carbon accumulated in 5 years with 70% effectiveness of ER-P	Projection of income at a price of US$5/tCO2e
Actions to avoid deforestation	810,000	106,047	Accumulated	21,688,731	12,270,091	8,589,064	
			Annual	2,168,873	2,454,018	1,717,813	
Actions to improve carbon reserves	410,000	41,000	Accumulated	28,373,894	7,413,696	5,189,587	
			Annual	2,837,389	1,482,739	1,037,917	
Total Actions of ER-P	1,220,000	147,047	**Accumulated**	50,062,625	19,683,787	**13,778,651**	
			Annual	5,006,262	3,936,757	**2,755,730**	
Discount of 20% for concept of compensations			Accumulated			2,755,730	
			Annual			551,146	
Total to offer to the Carbon Fund			**Accumulated**			**11,022,921**	**$55,114,603**
			Annual			**2,204,584**	**$11,022,920**

13. Preliminary assessment of the proposed ER Program in the context of the national Strategic Environmental and Social Assessment (SESA) and the Environmental and Social Management Framework (ESMF)[26]

13.1 Progress on SESA/ESMF

Application of the Strategic Social and Environmental Assessment (SESA) has been developed with great effort and responsibility under guidelines of the legal framework and policies of the Reconciliation and National Unity Government.

In the process of preparing the R-PP developed in 2011–2012, early dialogue was begun with key stakeholders, forming a platform for participation of three working groups: Working Group 1, with incidence at the political-strategic level in processes that include decision making at the highest level on those factors that are determinant in the generation and reduction of greenhouse gases; Working Group 2, which assumes the role of technical coordination; and Working Group 3, which has the responsibility of implementing actions in the field as well as achieving consensus and harmonization with the different stakeholders involved.

During the phase of development (2014–2015), the platform for participation, dialogue and consultation continued to be strengthened. In the 26 workshops conducted (see appendix 3.1-1), 777 stakeholders participated of whom 62% were men and 35% were women; 23% were young people less than 30 years of age. They included indigenous leaders, leaders of African descent, GTIs, organized groups of indigenous women and government actors.

A national SESA workshop was held in April of 2013, during which an analysis of the causes of deforestation and forest degradation was done, as well as of the risks and benefits of the strategic options identified.

There is an SESA work plan updated from the autonomous regions of the Caribbean coast, and in 2015 the SESA task forces were formed at a regional level, which have been active in development of ENDE-REDD+ activities and design of the ER-PIN Idea Note. With respect to studies that should be done, the SESA task forces have advanced in analysis of the legal framework and land ownership (this aspect is presented in section 14.1).

[26] The SESA is the assessment process to be used in FCPF REDD+ countries during R-PP implementation and REDD+ readiness preparation. The ESMF is an output of SESA that provides a framework to examine the issues and impacts associated with projects, activities and/or policies/regulations that may occur in the future in connection with the implementation of the national REDD+ strategy but that are not known at the present time.

13.2 Incorporation of SESA outputs and/or outcomes into the proposed ER Program

In the design and implementation of the Reductions Program, the contributions achieved with SESA will be used: the platform for participation of multiple stakeholders, development of a map of stakeholders linking their role with the commitments for emission reductions, formulation of the ESMF.

For the ER-P, an analysis of the policies, standards and indicators of social and environmental aspects that must be met should be carried out to ensure the social and environmental sustainability of the ER-P, including an analysis of the safeguards and considering the operational policies of the World Bank referring to (i) natural habitats (OP 4.04), (ii) forests (OP 4.36), (iii) physical cultural resources (OP 4.11), (iv) involuntary resettlement (OP 4.12) and (v) policies to safeguard indigenous peoples (OP 4.10).

13.3 Feedback and grievance redress mechanisms

In Nicaragua, the Dialogue Mechanism for Attention of Specific Grievances for matters related to ER-P has a legal basis in the Constitution, the Law of Citizen Participation, and the Law for Access to Public Information. It identifies and addresses unanticipated negative impacts; it is a formal system to accept, assess and resolve claims by the community about the performance or conduct of institutions and coordination bodies of the ER-P.

Within ENDE-REDD+ an accessible mechanism for grievances complementary to what already exists in the region is being designed, taking into account cultural, social and corresponding legal aspects

14.Land and resource tenure

14.1 Rights to territories and land and mitigation benefits

The Political Constitution of Nicaragua [27] recognizes the rights of indigenous people and Afro-descendant communities. Article 89 in the Constitution establishes recognition of forms of communal ownership of land of the communities of the Caribbean coast to the enjoyment and

[27] See "Political Constitution of the Republic of Nicaragua with Incorporated Reforms" in *La Gaceta, Diario Oficial*, No. 32, Tuesday, February 18, 2014.

use of the waters and forests of it communal lands. The right of free expression and preservation of languages, art and culture is established (Law 28 and Law 445[28]).

Rights to resources and benefits derived from the land or what is found on it are recognized in diverse regulatory bodies. Law 28, for example, in its Article 9, established an equitable sharing of benefits generated by management of natural resources; Article 36 establishes that *"community property constituted the lands, waters and forests that have traditionally belonged to* Communities of the Atlantic Coast…. The Regulation[29] to Law 28 established the concept of community property and defines it as "*collective property, constituted by community lands and the natural and other resources contained in it, traditional knowledge, intellectual and cultural property, resources of biodiversity and other goods, rights and actions that pertain to one or more indigenous or ethnic communities"* The Law of Conservation, Promotion and Sustainable Development of the Forestry Sector establishes that the rights to use the forest belong to the owner of said forest, as does the obligation to conserve it.

According to the latest report from CONADETI,[30] 22 territories in RACCN, RACCS and the Special Regime Zone have been titled up to 2014. See the Map of Titled Indigenous Territories in Appendix 14.1-1.

Implementation of the ENDE-REDD+ mechanism in Nicaragua allows use of an existing entity already regulated within the legal framework that can strengthen the regionalization of the Caribbean coast and that includes an equitable distribution of benefits generated by the forest. This entity is the National Fund for Forest Development (FONADEFO),[31]attached to the National Forestry Institute.

The matter of forest carbon in Nicaragua is not yet clearly defined; however, Law 462, the Law of Conservation, Promotion and Sustainable Development of the Forestry Sector, in its Article 29, states that *"for the preservation and management of forests and carbon fixation, Nicaragua will create a fund to encourage owners of forests."* It also establishes regulations on this matter. This mandate will allow us to promote a regulation in the framework of the proposal for EP-P that establishes a clear mechanism for distribution of benefits and guarantee the **shared benefits from carbon** that will be duly presented for consultation with indigenous peoples and communities of Afro-descendants.

[28] Law 28, Statute of Autonomy of the Atlantic Coast Regions of Nicaragua, published in *La Gaceta* No. 238, October 30, 1987. Law 445, Communal Property System of Indigenous Peoples and Ethnic Communities of the Autonomous Regions of the Atlantic Coast of Nicaragua and of the Bocay, Coco, Indio and Maiz Rivers, published in *La Gaceta* No. 16, January 23, 2003.

[29] Approved by Decree A.N. No. 3584, published in *La Gaceta* No. 186 of October 2, 2003.

[30] Executive Report of the CONADETI and the CIDTs, September 30, 2014. National Commission on Demarcation and Titling. See map in Figure 14.1-1.

[31] Created through Law 462, Law of Conservation, Promotion and Sustainable Development of the Forestry Sector, published in *La Gaceta* No. 168 on September 4, 2003.

Appendix 14.1-2 presents the legal framework associated to ENDE-REDD.

15. Benefit Sharing

15.1 Description of envisioned benefit-sharing arrangement for the proposed ER Program.

In Nicaragua, the responsibility for conservation, care and protection of natural resources belongs not only to the owner of the resource but also to the state in general. The benefits generated by the forest not only favor the owner or proprietor but also generate environmental and social externalities that go beyond the boundaries of the property, such as, for example, biodiversity and water resources, which foster development, growth and well-being for the entire nation.

The legal framework establishes the rights of owners of the land over its benefits, understanding benefits in a very general way. In this sense, considering implementation of the REDD+ mechanisms, there is a solid criteria that the rights to environmental services belong to the communities. Nevertheless, the studies that thoroughly investigate the material are crucial.

The plan is to use FONADEFO, with extension in the Caribbean region, as the administering entity that channels the funds through the Secretariat of Finances of the Regional Government of the Caribbean Coast and as the protagonist and authority that transfers the monetary incentives to the territorial governments. Within the structure of the indigenous territorial governments there is an administrative system carried out by its board of directors that distributes them to member communities of each territory.

The government of Nicaragua reaffirms using FONADEFO as the platform to implement transfers of positive incentives directly with the stakeholders, understanding that those incentives payments will be subject to results through specific programs carried out by the administering entity, which will be directly present in the Caribbean region.

15.2 Link between the envisioned benefit-sharing arrangement and the activities in the proposed ER Program.

In Nicaragua, the forest has a low cost of opportunity because contributions of its environmental and social services to society are not recognized, such as, for example, biodiversity, watersheds, food security and climate change. However, economic activities of the agricultural sector enjoy greater incentives that make their activity profitable, increasingly pressuring the forest resource. Thus it is fundamental that in the ENDE-REDD+ framework for positive incentives to be implemented to conserve and manage forests and reduce deforestation and forest degradation, which contributes significantly to climate change.

Likewise, governmental policies and guidelines will permit adoption of strategies and direct actions with the effective participation by the communities, capacity building, environmental education and shared responsibility will in a positive manner ensure the protection and care of our Mother Earth.

15.3 Progress on benefit-sharing arrangements

In the ENDE-REDD+ framework, diverse workshops for consultation and dialogue[32] were held, drawing participation of different sectors of the population: miners association, livestock farmers, education, health, indigenous territorial governments, municipality and other institutions to do with forest and environmental management. These workshops have revealed the strengths and weaknesses that could come with implementation of shared benefits, ensuring a general interest in keeping the forest and its benefits.

There are indigenous communal governments that have tried to foster projects presented in their territory to achieve payments for environmental services and monetary benefits to the communities under a mechanism of direct payments. Platforms for dialogue currently exist among communal governments, territorial governments, regional governments and national governments through a mechanism established via alliances for co-management in protected areas regional laws.

For the next stage of ER-P formulation, a systematization of lessons learned from community experiences with payments for environmental services will be carried out, with an emphasis on carbon.

16. Non-Carbon Benefits

16.1 Expected social and environmental benefits

Forest ecosystems are considered a source of multiple uses and environmental services for rural communities, indigenous and of Afro-descent, that depend on those ecosystems by virtue of their local contributions based on the ecological functions, the hydrological regime, healthy microclimate, production of water, soil conservation, and erosion control, among others.

[32] See minutes of the workshops "Strengthening Application of the Legal Framework, Policies and Governance," held in the municipalities of Muelle de los Bueyes, Siuna, Alamikambang, Laguna de Perlas and Corn Island between April and June 2015.

From the socioeconomic point of view, there is a potential to generate additional benefits with equitable distribution, such as tourism, agroecotourism, the industry of ecological services, transport and renewable energy.

The benefits will help reduce poverty, prepare the population to reduce vulnerability and adapt to climate change and promote gender equity.

16.2 Diversity and learning value

Nicaragua is designing the ER-P with a holistic vision that combines direct actions, such as attributable goals (reforestation, restoration) and goals that are not attributable, from the intrasectorial and intersectorial sectors (change in use of the soil, increase in agricultural productivity through modernization).

This program also uses an approach that directly addresses the direct and underlying causes of deforestation that involves strengthening compliance of the law and improves governance at the territorial level, both aspects barely tested in the region. Putting this type of "strict "measures in practice will provide important experience for its design and implementation in other places. Another element to highlight is development and functioning of consultation platforms for application of FIPC protocols in the region.

17. Progress on registries

17.1 National registry

The country, in the framework of the Third National Communication on Climate Change, which includes the GHG inventory, will develop a national registry to account for emissions/removals and will also evaluate adaptation efforts, losses and damages. In the case of the emission reductions proposal for the Caribbean coast area, subnational accounting will be established, but it will be supported and coordinated with the national registry.

18. List of acronyms used in the ER-PIN

Acronym	Meaning
AD	Activity Data (*Datos de Actividad-DA)*
AFS	Agroforestry Systems *(Sistemas Agroforestales-SAF)*
AMUNIC	Municipality Association of Nicaragua *(Asociación de Municipios de Nicaragua*)
ANACC	Nicaraguan Climate Change Alliance *(*Alianza *Nicaragüense de Cambio Climático)*
BICU CIUM	Bluefields Indigenous and Caribbean University-Centro Inter Universitario Moravo
CADPI	Center for Autonomy and Development of Indigenous Peoples (*Centro para la Autonomía y Desarrollo de los Pueblos Indígenas*)
CCAD	Central American Commission for Environment and Development *(Comisión Centroamericana de Ambiente y Desarrollo)*
CCF-A	Forest and Environment Advisory Council *(Comité Consultivo Forestal y Ambiental--RAAN)*
CIDTs	Comisiones Intersectoriales de Demarcación y Titulación
CENAGRO	National Agricultural Census (*Censo Nacional Agropecuario*)
CODEFOR	Departmental Forestry Commission *(Comisión Departamental Forestal)*
COMUFOR	Municipal Forestry Commission *(Comisión Municipal Forestal)*
CONADETI	National Demarcation and Titling Commission *(Comisión Nacional de Demarcación y Titulación)*
CONAFOR	National Forestry Commission *(Comisión Nacional Forestal)*
CONAGAN	National Livestock Commission *(Comisión Nacional de Ganadería)*
COREFOR	Regional Forestry Commission *(Comisión Regional Forestal)*
CP	Conference of the Parties *(Conferencia de las Partes)*
DIGAM	Office of Municipal Environmental Management *(Dirección de Gestión Ambiental Municipal)*
EF	Emission factor *Factor de Emisión*
ENACC	National Environmental and Climate Change Strategy *(Estrategia Nacional de Cambio Climático)*
ENDE	National Strategy for Avoided Deforestation *Estrategia Nacional de Deforestación Evitada*
ERPA	Emission Reductions Payment Agreement
ER-PIN	Emissions Reduction Program Idea Note *(Nota de Idea de Programa de Reducción de Emisiones)*
ESMF	Environmental and Social Management Framework *(*MGAS)
FADCANIC	Nicaraguan Federation of Livestock Associations *(Federación de asociaciones ganaderas de Nicaragua)*
FAO	Food and Agriculture Organization of the United Nations *(Organización de las Naciones Unidas para la Alimentación y la Agricultura)*
FCPF	Forest Carbon Partnership Facility *(Fondo Cooperativo para el Carbono de los Bosques)*
FM	Methodological Framework *(Marco Metodológico-MM)*
FONADEFO	National Fund for Forest Development *(Fondo Nacional de Desarrollo Forestal)*
FPIC	Free, Prior and Informed Consent (*Consentimiento Libre, Previo e Informado-CLPI*)
FUNDENIC	Nicaraguan Sustainable Development Foundation *(Fundación Nicaragüense para el Desarrollo Sostenible)*
GHGs	Greenhouse gases *(Gases de efecto invernadero)*

GEF	Global Environment Facility *(Fondo Mundial para el Medio Ambiente)*
GIZ	German Cooperation for Development *(Cooperación Alemana al Desarrollo)*
GOFO	Territorial Committee for Forest Governance *(Gobernanza Forestal)*
GPC	Citizen Participation Cabinets *(Gabinetes de Participación Ciudadana)*
GRACCN	Government of the North Caribbean Autonomous Region *(Gobierno Regional Autónomo de la Costa Caribe Norte)*
GRACCS	Government of the South Caribbean Autonomous Region *(Gobierno Regional Autónomo de la Costa Caribe Sur)*
GRUN	Government of Reconciliation and National Unity *(Gobierno de Reconciliación y Unidad Nacional)*
GTI	Indigenous Territorial Government *(Gobierno Territorial Indígena)*
HEMCO	Mining Company, Bonanza, RACCN *(Compañía dedicada a la minera, Bonanza, RACCN)*
IDB	Inter-American Development Bank *(Banco Interamericano de Desarrollo-BID)*
ILO	International Labor Organization *(Organization Internacional de Trabajo-OIT)*
INAFOR	National Forestry Institute (*Instituto Nacional Forestal)*
INATEC	National Technological Institute *(Instituto Nacional Tecnológico)*
INETER	Nicaraguan Institute of Territorial Studies *Instituto Nicaragüense de Estudios Territoriales*
INF	National Forest Inventory *Inventario Nacional Forestal*
INGEI	National Inventory of Greenhouse Gases *(Inventario Nacional de Gases de Efecto Invernadero)*
INIDE	National Institute of Information Development (*Instituto Nacional de Información de Desarrollo)*
INTA	Nicaraguan Institute for Agricultural Technology (Instituto Nacional de Tecnología Agropecuaria)
INTUR	National Tourism Institute *(Instituto Nacional de Turismo)*
IPADE	Institute for Economic Development *(Instituto para el Desarrollo Económico)*
IPCC	Intergovernmental Panel on Climate Change *(Panel Intergubernamental sobre el Cambio Climático)*
MAG	Ministry of Agriculture and Livestock *(Ministerio de Agricultura y Ganadería)*
MARENA	Ministry of Environment and Natural Resources *(Ministerio del Ambiente y los Recursos Naturales)*
MASAGNI	Semilla Verde, cooperative of conservation professionals *(Cooperativa de profesionales conservacionistas "Semilla Verde")*
MEFCCA	*Ministry of Family, Community, Cooperative and Associative Economy* (Ministerio de Economía Familiar Comunitaria, Cooperativa y Asociativa)
MEM	Ministry of Economy and Mines (*Ministerio de Economía y Minas)*
MHCP	Ministry of Finance and Public Credit *(Ministerio de Hacienda y Crédito Público)*
MIFIC	Ministry of Industry, Development and Trade (Ministerio de Industria Fomento y Comercio)
MTI	Ministry of Transportation and Infrastructure Ministerio de Transporte e Infraestructura
NRC	National Reforestation Crusade *(Cruzada Nacional de Reforestación -CNR)*
PAMCC	Climate Change Adaptation and Mitigation Policy *(Política de Adaptación y Mitigación ante el Cambio Climático-PAMCC)*
PCN	Council of Central and North Pacific Indigenous Peoples (*Consejo de Pueblos Indígena Pacifico Centro y Norte)*

PGR	Attorney General of the Republic *(Procuraduría General de la República)*
PI-PCN	Pueblos Indígenas del Pacifico Centro y Norte
PNDH	National Human Development Plan *(Plan Nacional de Desarrollo Humano)*
PNF	National Forestry Plan *(Plan Nacional Forestal)*
PPM	Permanent Demonstration Plots *(Parcelas Permanentes de Muestreo)*
ER-P	Emissions Reduction Program *(Programa de Reducción de Emisiones)*
PROMEBIO	Monitoring and Evaluation of Biodiversity of Central America *(Programa de Monitoreo y Evaluación de la Biodiversidad en Centroamérica)*
PSA	Payments for Environmental Services (*Pagos por Servicios Ambientales)*
PyMES	Small and Medium Enterprises (Pequeñas y Medianas Empresa)
RAAN	North Atlantic Autonomous Region *Región Autónoma del Atlántico Norte*
RAAS	South Atlantic Autonomous Region *Región Autónoma del Atlántico Sur*
RACCN	North Caribbean Coast Autonomous Region *(Región Autónoma de la Costa Caribe Norte)*
RACCS	South Caribbean Coast Autonomous Region *(Región Autónoma de la Costa Caribe Sur)*
REDD	Reducing Emissions from Deforestation and Forest Degradation *(Reducción de Emisiones por Deforestación y Degradación + Conservación)*
REL/FRL	Reference Emission Level/Forest Reference Level *(Nivel de Referencia de las Emisiones y Nivel de Referencia Forestal-NREF/NRF)*
RRNN	Natural Resources *(Recursos Naturales)*
SERENA	Secretariat of Natural Resources and Environment *(Secretaría de Recursos Naturales)*
SESA	Environmental and Social Assessment Strategy *(*Evaluación Estratégica Social y Ambiental-ESSA)
SETAB	Technical Secretariat of Bosawás *(Secretaría Técnica de Bosawás)*
SINAP	National System of Protected Areas *(Sistema Nacional de Áreas Protegidas)*
SINAPRED	National Disaster Prevention System *(Sistema Nacional de Prevención de Desastres)*
SPS	Silvopastoral Systems *(Sistemas Silvopastoriles-SSP)*
NGO	Non-Governmental Organization *(Organismo No Gubernamental-ONG)*-
SDI	Spatial Data Infrastructure (*Infraestructura de Datos Espaciales)*
SIG	Geographic Information System (Sistema de Información Geográfico-SIG)
SINAP	National System of Protected Areas *(Sistema Nacional de Areas Protegidas)*
SINIA	National Environmental Information System *(Sistema Nacional de Información Ambiental)*
SNMB	National Forest Monitoring System *(Sistema Nacional de Monitoreo de Bosque)*
ToR	Terms of Reference *(Términos de Referencia-TDR)*
IUCN	International Union for Conservation of Nature *(Unión Internacional para la Conservación de la Naturaleza-UICN)*
UNAG	National Union of Farmers and Ranchers *(Unión Nacional de Agricultores y Ganaderos)*
UNDP	United Nations Development Program *(Programa de Naciones Unidas para el Desarrollo-PNUD)*
UNDRID	United Nations Declaration on the Rights of Indigenous Peoples (*Naciones Unidas sobre los derechos de los pueblos indígenas)*
UNESCO	United Nations Educational, Scientific and Cultural Organization *(Organización de Naciones Unidas para la Educación, la Ciencia y la Cultura)*

UNFCCC	United Nations Framework Convention on Climate Change *(Convención Marco de las Naciones Unidas sobre el Cambio Climático-CMNUCC)*
URACCAN	University of Nicaraguan Caribbean Coast Autonomous Regions *(Universidad de las Regiones Autónomas de la Costa Caribe Nicaragüense)*
WB	World Bank *(Banco Mundial-BM*)

Abbreviations

Abbreviation	Meaning
Arto.	Article
Cn	Political Constitution of Nicaragua *(Constitución Política de Nicaragua)*
CO2e	Carbon dioxide equivalent
ha	Hectare
M tCO2e	Millions of tons of carbon dioxide equivalent
tC/ha	Tons of carbon per hectare

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Appendices

Appendix 2.1-1. Letter of approval for ER-PIN from GRACCN

Gobierno de Reconciliación y Unidad Nacional
El Pueblo, Presidente!

2015 Vamos Adelante!

GOBIERNO REGIONAL AUTONOMO COSTA CARIBE NORTE
CONSEJO REGIONAL AUTONOMO COSTA CARIBE NORTE
GRACCN-CRACCN

Bilwi, RACCN, 24 de Agosto de 2015

A: Cra. Juanita Argeñal
Ministra MARENA
Su Despacho

Cro. Javier Gutiérrez
Coordinador Proyecto ENDE-REDD+
Su Despacho

Asunto: Autorización para presentar el Documento "Nota de Idea del Programa Reducción de Emisiones (ER-PIN)" al Grupo de Trabajo I.

Señores Ministra y Coordinador:

Con gran respeto y consideración nos dirigimos a ustedes en el Marco del Grupo de Trabajo Interinstitucional formado en la Región de la Costa Caribe Norte, para la Construcción, Desarrollo, Dialogo y Consulta del Documento "Nota de Idea del Programa Reducción de Emisiones", (ER-PIN).

Nuestras Autoridades del Gobierno Regional Autónomo de la Costa Caribe Norte y Equipo de Asesoría Técnica del Comité Consultivo Forestal Ambiental CCFA, consideran que se han respetado los procesos y normas para llevar a cabo el Dialogo y las consultas en el Territorio; así como la participación de forma inclusiva de nuestras autoridades Regionales, Territoriales, Municipales y Comunales en todo el proceso de construcción del documento, incorporando así todas aquellas consideraciones y aspectos técnicos necesarios que aseguren la buena conducción de este proceso, el respeto y reconocimiento de los Pueblos Indígenas y Afrodescendientes cumpliendo así con los principios de Consentimiento Libre, Previo e Informado .

Por lo anterior, consideramos adecuado y brindamos la autorización para presentar el documento ER-PIN al Grupo de Trabajo I.

Agradeciendo su atención al presente.

Fraternalmente,

MSc. Carlos Alemán Cunningham
Coordinador de Gobierno
Costa Caribe Norte

COORDINADOR DE GOBIERNO GRACCN

Cra. Yanera Allen Martínez
Presidenta
Consejo Regional

FE, FAMILIA Y COMUNIDAD! EN VICTORIAS!

CRISTIANA, SOCIALISTA, SOLIDARIA!

Appendix 2.1-2. Letter of approval for ER-PIN from GRACCS

GOBIERNO REGIONAL AUTÓNOMO COSTA CARIBE SUR
CONSEJO REGIONAL
Secretaria de Recursos Naturales y del Ambiente
Bluefields - Nicaragua

SERENA GRACS

21 de agosto de 2015

Cra. Juanita Argeñal
Ministra MARENA
Su Despacho

Cro. Javier Gutiérrez
Coordinador Proyecto ENDE-REDD+
Su Despacho

Asunto: *Autorización para presentar el documento "Nota de Idea del Programa reducción de Emisiones (ER-PIN)" al Grupo de Trabajo I.*

Señores Ministra y Coordinador:

Nos dirigimos a ustedes en el marco del grupo de trabajo interinstitucional formado en la Región de la Costa Caribe Sur, para la construcción, desarrollo y Consulta del documento ER-PIN.

Nuestras autoridades del Gobierno Regional consideran que se han respetado los procesos y normas para llevar a cabo las consultas en el territorio; así como la participación de forma inclusiva de nuestras autoridades en todo el proceso de construcción del documento.

Por lo anterior, consideramos adecuado y brindamos la autorización para presentar el documento ER-PIN al Grupo de Trabajo I.

Agradeciendo su atención al presente.

Fraternalmente,

MS.c Kirkman Joe Roe
Secretario Ejecutivo SERENA-GRACCS
Presidente de Comisión CRACCS

GOBIERNO REGIONAL COSTA CARIBE SUR · REPUBLICA DE NICARAGUA · AMERICA CENTRAL · SECRETARIO EJECUTIVO SERENA · BLUEFIELDS, R.A.C.C.S.

Dirección: Residencial El Cortijo, gasolinera UNO 50 varas arriba, casa No 12, Bluefields: Costado Oeste Parque Reyes. Teléfonos Managua Teléfonos 22669582 – 23250628; Bluefields Tel: 25720110/25721541

Appendix 2.1-3 (Part 1 of 3). Minutes of Working Group I

Gobierno de Reconciliación y Unidad Nacional
El Pueblo, Presidente!

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AYUDA MEMORIA

PRIMERA SESIÓN ORDINARIA DEL GRUPO I DE LA ENDE-REDD+

Fecha: Miércoles 26 de Agosto de 2015
Lugar: Auditorio Naturaleza, MARENA

Estando reunidos los miembros del Grupo de Trabajo I, de la ENDE-REDD+, e invitados del Ministerio de Hacienda y Crédito Público y del Ministerio del Ambiente y los Recursos Naturales, en el Salón Naturaleza, MARENA, ubicado en la ciudad de Managua, en fecha 26 de Agosto de 2015, a las 9:00 a.m. se llevó a cabo la Primera Sesión Ordinaria del Grupo I de la ENDE-REDD+ con el objetivo de presentar la propuesta de ***"Nota de Idea del Programa de Reducción de Emisiones ER-PIN"***, para su debida revisión y aprobación.

Este documento fue construido en el marco del *"Proyecto Apoyo a la Preparación de la Estrategia Nacional de Deforestación Evitada (ENDE-REDD+)"* de forma colegiada con las mesas técnicas de trabajo interinstitucional, a nivel nacional y regional.

La agenda desarrollada comprendió la presentación y revisión del Documento ***Programa de Reducción de Emisiones*** y comprendió los siguientes acuerdos. Palabra de la Cra. Ministra Juanita Argeñal.

Les damos la bienvenida a esta reunión del grupo I multidisciplinario para la presentación de los avances de la idea de proyecto dirigido a evitar la Desforestación, (para evitar estela idea equipo multidisciplinario fondo cooperativo del carbono) estamos aspirando para que sea aprobado, y trabajar en un proyecto, para la madre tierra, dejamos al Cro. Gutiérrez para que nos presente.

FE, FAMILIA Y COMUNIDAD! EN VICTORIAS!

CRISTIANA, SOCIALISTA, SOLIDARIA!
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Appendix 2.1-3 (Part 2 of 3). Minutes of Working Group I

Gobierno de Reconciliación y Unidad Nacional
El Pueblo, Presidente!

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ACUERDOS SUSCRITOS

1. Sobre la propiedad del Carbono, hay que revisar la terminología con base a la Constitución Política, la Ley 28 y la ley 445, a fin de encontrar un lenguaje entendible y claro, asociado a los servicios eco sistémico en general.
2. La titularidad del carbono corresponde al dueño del bosque, este concepto ha sido aprobado en las consultas por ambas regiones autónomas.
3. El mecanismo de quejas es un tema a revisar y adaptarlo a las circunstancias tradicionales de la región. Entendiendo que este mecanismo estará asociado únicamente al tema de pagos por resultados.
4. Revisar el marco legal para considerar a la población mestiza que se encuentra en las dos grandes reservas incluidas en el programa y que se encuentran fuera del territorio indígena, ya que tienen diferentes formas de organización.
5. Realizar un análisis integral sobre el mecanismo de inclusión de los casos en que el bosque se encuentre en manos de privados o del Estado.
6. Se deja claro que este programa no compromete al País con el mercado de Carbono ni a ningún mecanismo internacional legalmente vinculante sobre reducción de emisiones.
7. Pasar un resumen ejecutivo sobre el documento borrador ER-PIN a los miembros del Grupo de Trabajo I.
8. Se aprueba para continuar con los siguientes pasos según cronograma de formulación del ER-PIN.

Estando todo los presentes, Miembros del Grupo de Trabajo I e invitados, conformes con los acuerdos tomados, se cierra la sesión con la ratificación y firma de la presente Ayuda Memoria a las doce horas del mediodía del miércoles 26 de Agosto del corriente año 2015.

FE, FAMILIA Y COMUNIDAD! EN VICTORIAS!

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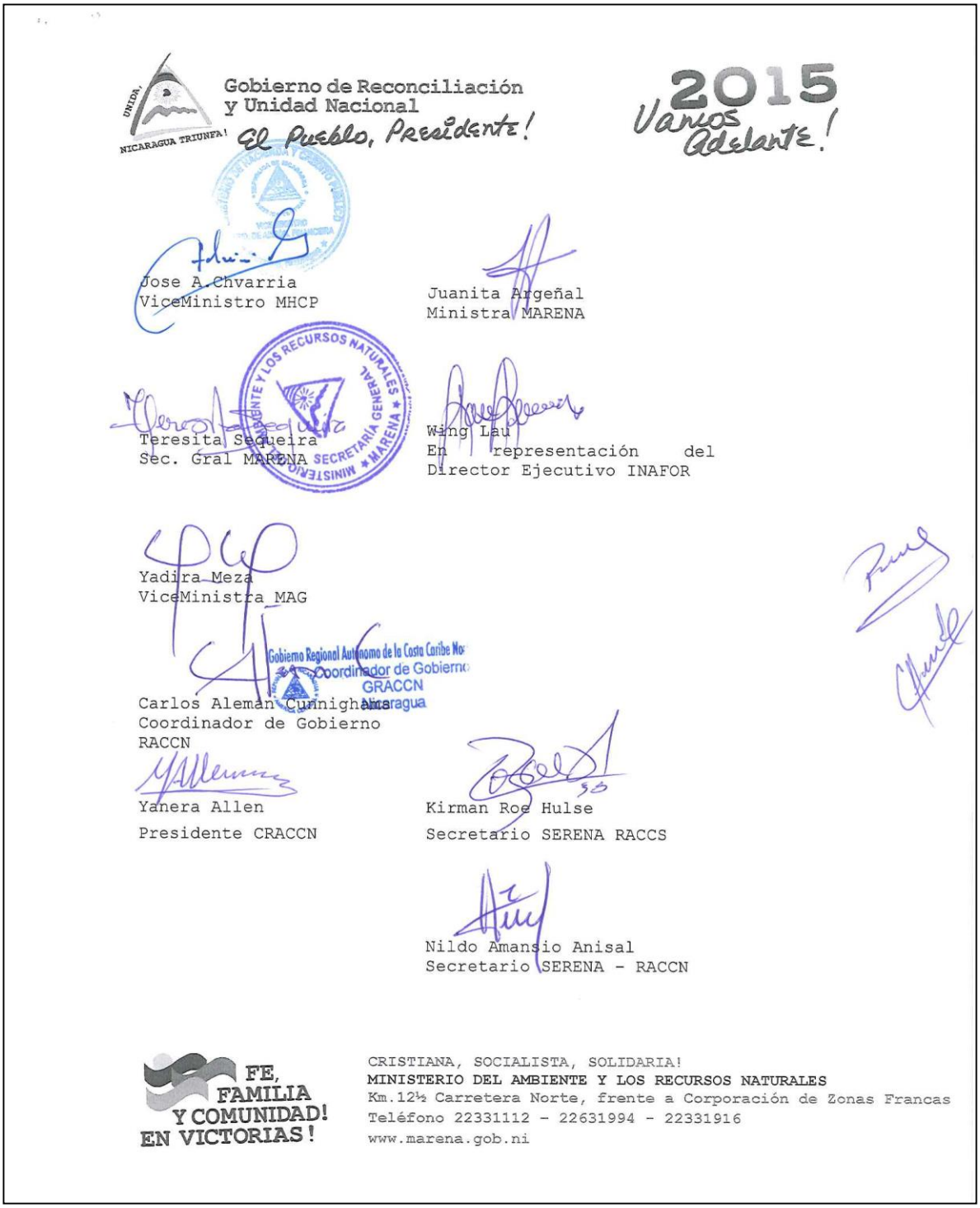
Appendix 2.1-3 (Part 3 of 3). Minutes of Working Group I



Gobierno de Reconciliación y Unidad Nacional
El Pueblo, Presidente!

2015 Vamos Adelante!

Jose A Chvarria
ViceMinistro MHCP

Juanita Argeñal
Ministra MARENA

Teresita Sequeira
Sec. Gral MARENA

Wing Lau
En representación del Director Ejecutivo INAFOR

Yadira Meza
ViceMinistra MAG

Carlos Aleman Cunningham
Coordinador de Gobierno
RACCN

Yanera Allen
Presidente CRACCN

Kirman Roe Hulse
Secretario SERENA RACCS

Nildo Amansio Anisal
Secretario SERENA - RACCN

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Appendix 3.1-1. Diagnostic and Participation Workshops in the R-PP y ENDE-REDD+

Activities			
R-PP Process (2011-2012)			
No	Topic	Place	No. Participants
1	Metodologías y Cálculos para la determinación de la Tasa de Deforestación Nacional, Regional y Local.	Managua 13, 14 y 15 de Marzo del 2012	40
2	Taller diálogo para la preparación de la estrategia ende y propuesta sub nacional de la RAAN,	Puerto Cabezas 17 de abril del 2012	58
3	Diálogo para la revisión y ajustes del documento versión 5 de la Estrategia Nacional de Deforestación Evitada / R –PP	Managua 19 de Abril, 2012	33
4	Taller diálogo para la preparación de la estrategia ENDE y propuesta sub nacional de la RAAS.	Bluefields 25 de abril del 2012.	43
5	Diálogo para la revisión y ajustes del documento versión 5 de la Estrategia Nacional de Deforestación Evitada / R –PP con ANACC.	Managua 18 de Mayo 2012	36
6	Diálogo para la revisión y ajustes del documento versión 5 de la Estrategia Nacional de Deforestación Evitada / R –PP con Pueblos Indígenas Pacífico Centro Norte	Masaya, 17 de mayo, 2012	49
7	Taller diálogo para la preparación de la estrategia ENDE y propuesta sub nacional de la RAAN, Bilwi con Gobiernos Territoriales Indígenas.	Puerto Cabezas 23-24 de mayo 2012	65
8	Taller de Capacitación y Dialogo temprano sobre: La Evaluación Ambiental y Social Estratégica (SESA) con Operadores Sociales Nacionales y Regionales	Managua 25 de mayo 2012	37
9	Presentación de la versión preliminar de la propuesta de Preparación para Reducir la Deforestación y Degradación de los Bosques. Nivel i y ii	Managua 28 de mayo 2012	27
10	Taller Nacional de Evaluación Social y Ambiental Estratégica (SESA)	Managua, 29 abril 2013	68
11	Taller Evaluación Ambiental y Social Estratégica (SESA) con CONAGAN	Managua 25 julio 2013	182

ENDE-REDD+ Preparation and Readiness Process (2014-2015)			
Activities			
No	Topics	Place	No participants
	Sesión de Inauguración del Proyecto, Grupo de Trabajo 1	Managua 4 agosto 2014	
	Sesión de Inauguración del Proyecto, Grupo de trabajo 2	Managua 19 agosto 2014	16
	Visita de Inducción RACCN	Puerto Cabezas 3 octubre 2014	13
	Visita de Inducción RACCS	Bluefields 7 octubre 2014	9
	Visita de Inducción, al NODO-Sinia ubicado en URACCAN	Siuna 17 octubre 2014	8
	Visita de Inducción con PI-PCN	Masaya 11 noviembre 2014	8
	Consulta de Planificación 2015 RACCN	Puerto Cabezas 21 noviembre 2014	8
	Consulta de Planificación 2015 RACCS	Bluefields 19 noviembre 2014	13
	Taller de Presentación de la ENDE-REDD+	Masaya 25 noviembre 2014	38
1	Taller de Presentación de la ENDE-REDD+	Waspan 21 abril 2015	30
2	Taller de Presentación de la ENDE-REDD+	Bluefields 28 abril 2015	35
3	Taller de Presentación de la ENDE-REDD+	Rosita 14 mayo 2015	30
4	Taller de Presentación de la ENDE-REDD+	Laguna de Perlas 4 junio 2015	17
5	Taller de Presentación de la ENDE-REDD+	Nueva Guinea 18 junio 2015	33
6	Taller de Presentación de la ENDE-REDD+	El Ayote 23 junio 2015	20
7	Taller de fortalecimiento de la aplicación del marco legal	Laguna de Perlas 12 abril 2015	22
8	Taller de Fortalecimiento de la aplicación del marco legal	Corn Island 17 abril 2015	24
9	Taller de Fortalecimiento de la aplicación del marco legal	Muelle de los Bueyes 13 mayo 2015	45

Periodo de Elaboración de ENDE-REDD+ (2014-2015)

Actividades Realizadas			
No	Temas	Lugar	No participantes
10	Taller de Fortalecimiento de la aplicación del marco legal	Siuna 4 junio 2015	28
11	Taller de Fortalecimiento de la aplicación del marco legal	Prinzapolka 9 junio 2015	37
12	Taller de Identificación de Buenas Prácticas Ambientales	Puerto Cabezas 12 mayo 2015	31
13	Taller de Identificación de Buenas Prácticas Ambientales	Bluefields 28 julio 2015	32
14	Taller de Evaluación Estratégica Social y Ambiental	Bonanza 20 mayo 2015	24
15	Taller de Evaluación Estratégica Social y Ambiental	Puerto Cabezas 17 julio 2015	35
16	Taller de Diagnostico de necesidades de capacitación	Jinotega 25 abril 2015	26
17	Taller de Diagnostico de necesidades de capacitación	Puerto Cabezas 28 abril 2015	31
18	Taller de Prevención de Incendios Forestales y Agropecuarios	Siuna 23 y 24 abril 2015	55
19	Taller de Prevención de Incendios Forestales y Agropecuarios	Prinzapolka 23 y 24 abril 2015	42
20	Taller de Prevención de Incendios Forestales y Agropecuarios	Laguna de Perlas 22 abril 2015	27
21	Taller de Prevención de Incendios Forestales y Agropecuarios	San José de Cusmapa 26 junio 2015	44
22	Taller de Bosque y Cambio Climatico	Managua 7 julio 2015	37
23	Taller sobre el uso de las Guías del IPCC	Managua 30 julio 2015	25
24	Curso Básico básico Sistema de Información Geográfico	Bluefields 23 julio 2015	18
25	Curso Intermedio Sistema de Información Geográfico	29 junio al 2 julio 2015	21
26	Taller de diálogo y consulta ER-PIN	Bluefields 11 agosto 2015	59
27	Taller de diálogo y consulta ER-PIN	Puerto Cabezas 18 agosto 2015	67
28	Sesión ordinaria del grupo de Trabajo I	Managua 26 agosto 2015	

Appendix 3.2-1. Timetable for Implementation of the Readiness Package (R-Package)

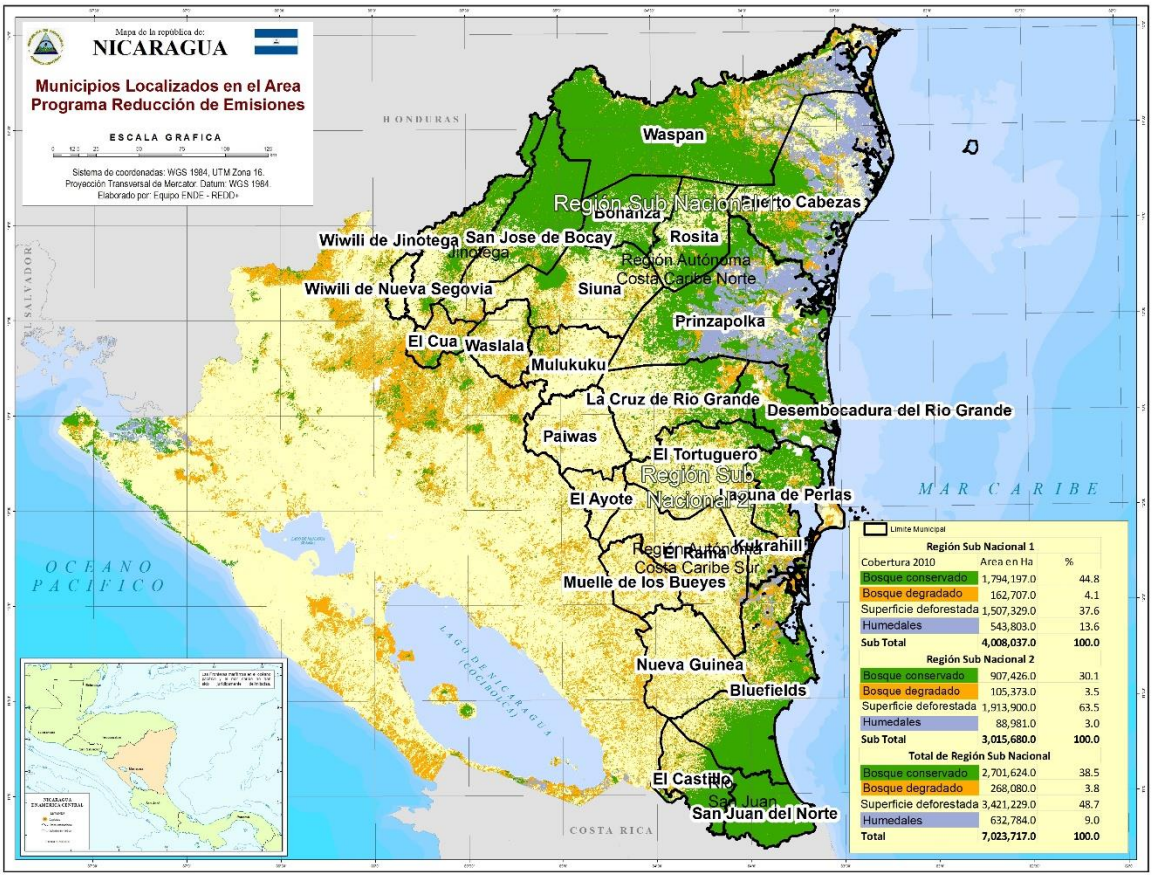
Task	Start Date	Duration, Days	Final Date
ENDE-REDD+working group formed	2-Feb-14	1,275	31-Jul-17
Platform of multiple actors active in different ENDE-REDD+ activities for its preparation and implementation stage.	10-Oct-14	1,025	31-Jul-17
Grievance and accountability mechanisms developed, in use, and institutionalized among all actors linked with ENDE-REDD+.	20-Oct.2015	636	31-Jul-17
A communication strategy that supports the transparency of preparation processes for ENDE-REDD+, aspects related to SESA and the Dialogue Mechanism for Attention of Claims.	20-Jul-15	742	31-Jul-17
Study on safeguards or operational policies of the World Bank that could be applicable to ENDE-REDD+ and ER; mapping of investments, assessment of political, legal and institutional policies, a diagnostic assessment of gender equity, analytical studies and/or assessments prioritized in the SESA.	30-Oct-15	425	28-Dec-16
Preparation for midterm external evaluation and R-Package (self-evaluation).	1-March-2016	30	31-March-2016
Training local, territorial, regional and national member institutions on implementation of the economic payments for ecosystem services.	2-Feb-16	330	28-Dec-16
Workshops to define institutional arrangements to ensure implementation of ENDE-REDD+ activities and follow-up and biophysical, hydric, biodiversity, production and CO_2 monitoring.	3-Feb-16	330	29-Dec-16
Carry out workshops and working sessions to build the follow-up system and monitoring of carbon, benefits and co-benefits.	3-Feb-15	695	29-Dec-16
Creation of mechanisms, tools and procedures for monitoring and follow-up on carbon, benefits and co-benefits.	3-Feb-15	695	29-Dec-16
Determination of a standardized methodology for developing the reference scenario.	3-Feb-15	695	29-Dec-16
Design the ESMF guided by the environmental and social operational policies of the World Bank.	4-Apr-16	118	31-Jul-16
Develop a study about the benefits and shared co-benefits and carbon ownership	4-Apr-16	1,825	4-Jul-16
Consultation and approval of the National Strategy for Avoided Deforestation (ENDE-REDD+) to procure reduction of emissions from deforestation and forest degradation, improving the economic value of the forests and of their co-benefits.	2-Feb-17	177	29-Jul-17

Appendix 3.3-1. Relationship of ER-P activity with ENDE-REDD+ Strategic Options.

(A) Item 2.b. R-PP: Options of the ENDE-REDD+ Strategy	(D) Planned and current activities within the framework of the ER Program (ER-P) and its alignment with the R-PP
1. Strengthen the institutional capabilities and governing forestry structures (national, regional, municipal and indigenous territories)	
a. Carry out an organizational study and coordinate strategic planning of each institution that is key to the ENDE-Redd+ Strategy b. Broaden institutional coverage in the territory c. Strengthen institutional capabilities for transparent management of economic resources	a. Organizational analysis of regional organizations linked to the topic and the national ones having a presence in the autonomous regions a. Development and implementation of a proposal to improve mechanisms for interinstitutional coordination, monitoring and evaluation b. Broaden institutional coverage in the territory through support of financial resources and equipment to indigenous territorial governments (GTIs) and institutions linked to the topic b. Functioning of mechanisms for claims and grievances for the ER program c. Development and implementation of a training program through strategic alliances with institutions in the sector
2. Adjustment and alignment of the political and regulatory framework	
a. Strengthen analytic capacities of the members of the Production Cabinet, particularly those at level one b. Readjust credit policies to encourage forestry investment and discourage agricultural activities in reserve areas c. Improve systems and instruments for regulation and control of environmental forestry management (independent monitoring)	a. Provide support to autonomous regions to coordinate and harmonize the country's public policies with instruments designed for conservation of natural resources (ENDE, National Forestry Development Plan, among others) b. Develop and implement proposals to change and improve credit laws, standards and regulations c. Strengthen the process of traceability and forest certification as a strategy to promote sustainable forest management with a commercial focus c. Increase investment in forestry control and application of the law to protect natural resources c. Strengthen enforcement of the legal framework for territorial planning

3. Restructuring of the agricultural, livestock and forest production systems with a focus on adaptation to climate change	
a. Research, innovation, rescue and development of agricultural and forestry technologies b. Knowledge management c. Dialogue and environmental awareness d. Promotion of territorial planning	a. Promote and modernize agricultural, livestock and forestry systems with a focus on adaptation to climate change a. Strengthen sustainable management of natural forests and promotion of forest plantations for energy purposes c. Develop environmental education programs c. Reforestation campaigns (15,000 hectares annually) c. Develop forestry extension plans (leaflets, manuals, brochures, with a focus on gender, multiethnic and multilingual) d. Promote development and implementation of instruments for territorial planning and management, based on comparative advantages in the territory
4.. Development of incentives that lead to the protection, conservation and changes in soil use	
a. Development of financial incentives mechanisms b. Broadening the financial institutions structures c. Implement forest environmental voucher	c. Implement a system of forestry incentives to promote conservation of the country's forest resources and improve the economy of communities where the actions are developed, including incentives for producers or organizations that allocate areas for protection
5. Strengthen the commercial framework and value chains for farm and forest products	
a. Market research, access and development b. Create and strengthen organizational structures with a business focus c. Develop the small-scale agroindustrial sector	b. Creation of associative and community enterprises for rural community tourism and alternative medicine c. Diversification of economic activities aimed at reducing pressure on forest resources and improving the quality of life of the actors
6. Improve territorial governance and support planning processes of indigenous territories	
a. Institutional strengthening of forest governance structures (CCF-A) b. Stop the advance of the agricultural frontier c. Strengthen territorial governments (GTIs) d. Strengthen the land ownership and restructuring systems in conflict areas	a. Strengthen forest governance, decentralization and regionalization to improve the process of transfer of responsibilities and capacities of forest management to regional governments and municipal governments; strengthen territorial planning. b. Strengthen the Restructuring Commission

Appendix 4.1-1. Municipalities in the Emission Reductions Program



Appendix 5.2-1: Linking ENDE-REDD+ strategic lines, direct and underlying causes of deforestation and forest degradation and activities planned in the framework of the ER Program, goals and barriers identified.

(A) Item 2.b R-PP: ENDE-REDD+ Strategy Options	(B) Direct Cause of D&D Table 17 R-PP	(C) Underlying Cause Table 17 R-PP	(D) Activities Planned under ER Program Framework	(E) Barriers	(F) Goals
1. Strengthen the institutional capabilities and the governing forestry structures (national, regional, municipal and indigenous territories). a. Carry out an organizational study and coordinate strategic planning for each institution that is key to the ENDE-Redd+ Strategy. b. Broaden institutional coverage in the territory. c. Strengthen institutional capacity for transparent management of economic resources.	a. Weakness of the interinstitutional coordination, monitoring and evaluation mechanisms. a. Weak coordination between GTIs and state institutions. b. Invasion of indigenous communities' lands. b. Lack of control over commercial permits linked to informal market. b. Level of implementation of forest and environmental laws. c. Limited territorial presence of judicial power. c. Local institutional presence (INAFOR, MARENA, INTA, MAGFOR). c. Budgetary limitations of key institutions.	a. Limited institutional environmental vision. Little institutional presence in distant rural areas. Lack of institutional policy to address the problem. Local inability to respond to the problem. b. Search for fertile soil for agriculture (basic grains). Economic interest in precious wood trees. Lack of defining boundaries of indigenous areas. Institutional incapacity to provide protection from and control the informal market at a national level. c. Budgetary incapacity to attend to the basic needs of local offices. Low institutional priority for environmental problems. The environment is not considered a priority in the national budget. Poor budgetary management laden with bureaucratic administrative procedures.	1.1 Reinforce and increase the capacity of forestry and environmental institutions at a national and subnational level to promote actions for protection and sustainable management of forests. 1.2 Broaden institutional coverage at a subnational level through support of means and equipment to the GTIs and institutions linked to the topic. 1.3 Implementation of mechanisms for claims and grievances related to deforestation and forest degradation. 1.4 Improve management of protect areas, forests, plantations and private wildlife reserves. 1.5 Prevent and control forest fires.	1.1 Little institutional ability to impose adoption of forest regulations that prevent unsustainable extraction. 1.2 Lack of institutional presence in extensive areas of Nicaragua, especially in the forested regions of the Nicaraguan Caribbean, resulting in illegal logging as an important problem that restricts sustainable forest management. 1.2 Lack of application of social audit mechanisms. 1.4 Cultural barrier that undervalues and plunders the country's forests. 1.4 High opportunity costs of maintaining the forests.	1.1 ENDE Working Groups 1 and 2 coordinate, monitor and evaluate actions at the intersectorial level directed toward conservation and sustainable management of forests. 1.2 Improve institutional presence at the subnational level. 1.3 ER-REDD+ has an active mechanism to attend to complaints and claims under the principles of accessibility, efficiency, effectiveness and transparency of its actions. 1.4 500,000 ha of forest in protected areas implement their management plans for conservation of forest carbon reserves. 1.5 Fires prevented and controlled in 20% of affected areas.
2. Adjustment and alignment of the political and regulatory framework. a.Strengthen analytic	a. Few cattle-control mechanisms. a. Complicated bureaucratic transactions. b. Presence of financial institutions.	a. Poor policies and laws to effectively regulate and organize this activity. Poor institutional presence in higher intensity zones where this activity is carried out.	2.1 Improve and efficiently apply systems of traceability and forest certification. 2.2 Increase investment in forest control and application	2.1 Opposition of productive economic sectors. 2.1 Lack of strategies to encourage sustainable forest management with a commercial focus.	2.1 Greater surface volume of trees registered in INAFOR's Forestry Information System to provide better control over management of forest resources.

capacities of members of the Production Cabinet, particularly those at level one. b. Readjust credit policies to encourage forestry investment and discourage agricultural activities in reserve areas. c. Improve systems and instruments for regulation and control of environmental forestry management (independent monitoring).	b. Tariff measures for selling wood (INAFOR). c. Local institutional presence (police, army, PGR, attorney general). c. Weakness of the interinstitutional coordination, monitoring and evaluation mechanisms.	Poorly oriented regulation policies and rules. Flawed procedures and gaps that permit personal interpretations. b. Financing of agricultural and cattle-raising activities that increase forest degradation. Tax payments directly related to the condition of the farm, the better the condition of the farm, the higher the tax rate. Exoneration policies for agricultural activities encourage their increase. c. Budgetary incapacity to attend to the basic needs of local offices. Low institutional priority for environmental problems. Institutional priority focused on common crimes or other crimes. Topic is not a priority on the policy agenda. Institutional activism not focused on long-term priorities. Limited institutional environmental vision.	of the law to protect natural resources.	2.2 Availability of economic resources to monitor management plans.	
3. Restructuring of the agricultural, livestock and forest production systems with a focus on adaptation to climate change. a. Research,	a. Limited recognition of the social value of forests to the vison of indigenous peoples. b. The market does not quantify or value environmental services. c. Ignorance of laws,	a. Outdated, unprofitable production technology management that is detrimental to the environment. Means used by large producers to expand their areas under exploitation.	3.1 Establishment of incentive (Forest Environmental Voucher) for reconversion of productive systems that consider the following actions: Silvopastoral systems Agroforestry systems	3.1 Implementation of the incentive may be out of step with agricultural policy and the country's budgetary restrictions. 3.1 Faces a predominant and persistent culture of extensive	3.1 Forest carbon reserves increase through promotion of 70,000 ha of silvopastoral systems and 100,000 ha of agroforestry systems.

innovation, rescue and development of agricultural and forestry technologies. b. Knowledge management. c. Dialogue and environmental awareness. d.Promotion of territorial planning.	transactions, regulations, norms, etc., at the rural level.	The commercial focus of goods and services prevails. c. Lack of capabilities to generate new business alternatives. High dependency on external hiring as unqualified manual labor. d. Little dissemination of laws, norms, legal procedures in communities distant from urban areas. Low level of schooling in the communities. Little dissemination in indigenous languages.	Forest plantations Forest management Forest conservation.	agriculture and agricultural policy that gives preference to agricultural development, even on forest vocation land. 3.1 The mechanism must take into account that the amount can neither be too small to be acceptable to owners nor so large that it creates speculative behavior.	3.1 Carbon stock has been increased through incentives for reforestation of 100,000 ha.
4. Development of incentives that lead to protection, conservation and change in soil use. a. Development of financial incentives mechanisms. b. Broadening the financial institutions structures. c. Implementation of forest	a. Higher opportunity costs than the forest. a. Few incentives for alternative markets for agroforestry products. b. Market does not quantify or value environmental services. c. Lack of financial mechanisms to reduce deforestation.	a. Financial institutions interested more in profitability of their operations than in socioeconomic development. Little private or institutional capabilities to develop alternative markets. b. Lack of availability of economic resources destined for serviced provided by ecosystems. c. Institutional weakness of the state to generate economic resources to support the environment. Institutional incapacity to	4.1 Compensation for environmental services for carbon sequestration and conservation of water resources as co-benefit. 4.2 Credits for modernization and intensification of agricultural, livestock-raising and forestry systems.	4.1 If the design of the mechanism does not provide an equity approach, it would cause further social inequality within the communities 4.1 Bureaucratic red tape and high transaction costs that small and medium owners must handle. 4.2 Modernization and intensification of systems does not come with timely technical assistance.	4.1 Reduced emissions on 100,000 ha through a compensation service for environmental services. 4.2 Deforestation areas reduced through credits on 70,000 ha, improving livelihoods in the communities.

environmental bond (voucher).		visualize new alternative economies to finance environmental activities.			
5. Strengthen the commercial framework and value chains for farm and forest products. a. Market research, access and development. b. Create and strengthen organizational structures with a business focus. d. Development of the small-scale agroindustrial sector.	a. Value chain influence. b. Unequal distribution of the benefits from deforestation. b. Low land values in the agricultural frontier zones.	a. Commercialization of products in hands of large landowners. b. Monopolized commercial structure focused on the sale of roundwood or at a first stage of processing. Weak local capabilities to develop diverse viable economic alternatives with forest products. Poor negotiating skills of titled owners of trees. Poor access roads. Personal as well as land insecurity. Difficult access to markets for agricultural products.	5.1 Technological improvements and increase in commercialization and diversification of products 5.2 Promote and strengthen monitoring systems for change in uses of the soil.	5.1 The approach should be an integrated one, not focusing solely on the forestry sector. 5.2 Lack of compliance with forestry regulations that limit widespread adoption of sustainable forest management.	5.1 Improvement in competitiveness of 30% of small and medium businesses in forestry, agricultural and livestock-raising sectors at subnational level. 5.2 A monitoring system established for changes in soil use.
6. Improve territorial governance and support planning processes of indigenous territories. a. Institutional strengthening of forest governance structures (CCF-A). b. Stop the advance	a1. Lack of control over commercial permits linked to the informal market. a2. Level of application of environmental and forestry laws. d. Weakness of indigenous peoples to defend their territories. d. Incomplete agreements with displaced groups. d. Land speculation. d. Illegal land ownership.	a1. Institutional incapacity to provide protection and control the informal market at a national level. a2. Institutional inability to implement these laws in areas where the forests are most affected. d. Difficulty in applying the rights conveyed by law and inability to put them into practice. Weak indigenous institutions subjected to the vision of the leaders of the	6.1 Increase in forest area under sustainable forest management through strengthening the system of forest governance and promotion of community forestry. 6.2 Management of areas under natural regeneration, concentrated in areas affected by Hurricane Felix.	6.1.2.3 Creation of conflicts among territorial authorities. 6.1.2.3 Land ownership problems involved in processes of restructuring the indigenous territories if not concluded satisfactorily.	6.1 70,000 ha of forest managed under community 6.1 Area of forest under sustainable forest management increased by 70,000 ha. 6.2 40,000 ha of natural regeneration managed in areas impacted by Hurricane Felix.

of the agricultural frontier. c. Strengthen territorial governments (GTIs). d. Strengthen the land ownership and restructuring systems in conflict areas.	d. Lack of property registration.	moment. Little support from competent institutions for the protection of indigenous territories. Insecurity in legal land ownership. Lack of organization in the national registry, primarily of indigenous land. Deficiency in the regulation and organization of activities in state institutions.	6.3 Reforestation and forest restoration through National Reforestation Crusade.		6.3 Carbon stock increased through reforestation of 100,000 ha in national crusade.

Appendix 5.4-1. Matrix of risks and potential benefits of activities planned in the ER-P.

Actions Planned	Different Carbon Benefits	Risks
1.1 **Reinforce and increase the capacity of forestry and environmental institutions at a national and subnational level to promote actions for protection and sustainable management of forests.**	The coordination mechanisms, "regional and territorial task forces," are active, continuously analyzing their management and redefining or validating their institutional competencies.	The institutions do not have the same level of priority for the issue of deforestation and forest degradation.
1.2 Broaden institutional coverage through support of means and equipment to the GTIs and institutions linked to the topic.	The institutions have means and equipment that permit greater efficiency.	Representation and rights of the indigenous territories and communities are not respected. Lack of resources to open offices.
1.3 Implementation of mechanisms for claims and grievances related to deforestation and forest degradation.	There is an instrument that promotes respect for the different actors related to their rights.	The instrument does not have the expected credibility.
1.4 Improve management of protect areas, forests, plantations and private wildlife reserves.	The offer for environmental services from the forest improves.	The existence of forest fires and pests. The search for voluntary markets for CO_2e.
1.5 Prevent and control forest fires.	Protects and conserves biodiversity	The high opportunity costs of maintaining the forests.
2.1 Improve and efficiently apply systems of traceability and forest certification.	The population is educated as far as use of wood of clear provenance.	Strong position of the illegal loggers and the industry.
2.2 Increase investment in forest control and application of the law to protect natural resources.	Mechanisms of forest governance strengthened.	Economic sectors (mainly illegal loggers) are against these mechanisms.

3.1 Establishment of incentive (Forest Environmental Bond, or voucher) for reconversion of production systems that consider the following actions: ● **Silvopastoral systems** ● **Agroforestry systems** ● **Forest plantations** ● **Forest management** ● **Forest conservation,**	Permit diversification of products to sell in the local market	Traditional productive culture that does not allow a change for producers. The forest bond design must clearly recognize the opportunity cost of moving from traditional productive systems to options encouraged by the bond.
4.1 Compensation for environmental services for carbon sequestration and conservation of hydric resources as co-benefit.	Allow ecosystems to generate a greater quantity of environmental services and diversify their production systems.	Lack of real and potential markets for ES. Reduction in productivity because of changes in production systems.
4.2 Credits for modernization and intensification of agricultural, livestock-raising and forestry systems.	Allow ecosystems to generate a greater quantity of environmental services and diversify their production systems.	Lack of real and potential markets for ES.
5.1 Technological improvements and increase in commercialization and diversification of products.	Allow businesses to improve their competitiveness.	Reduction in productivity because of changes in production systems.
5.2 Promote and strengthen monitoring systems for change in uses of the soil.	An important instrument for regulating production in the territories.	Lack of appropriation of the instrument. Policies of the production sectors are not aligned with the instrument.
6.1 Increase in forest area under sustainable forest management through strengthening the system of forest governance and promotion of community forestry.	Greater clarity on provenance of forest products.	Limited coordination among the different stakeholders.

6.2. Management of areas under natural regeneration, concentrated in areas affected by Hurricane Felix.	Recuperation of part of the forest mass lost to natural disasters.	
6.3 Reforestation and forest restoration through National Reforestation Crusade.	Makes young people aware of importance of reforestation and recuperates areas of forests.	Lack of resources to promote concrete actions of the National Reforestation Crusade.

Appendix 6.1-1. Map of Actors

Group of actors	Actors	Mandate of interests	Links with ER PIN and presence in autonomous regions
Government Actors	National Government. MARENA, MAG, INAFOR, MEFCCA INTA, INTUR, PGR	Appointed and headed by the president of the republic and made up of state institutions linked to development of the agricultural and forestry sector.	**MARENA**: regional delegations in Bilwi and Bluefields and with presence in Nueva Guinea, Bonanza, Waspam, Siuna and Rosita **INAFOR:** organized in Forestry Districts, with Districts 1, 2 and 8 involved in Subnational Region 1 and Districts 7, 9 and 10 in Subnational Region 2 **FONADEFO:** Bilwi, Bluefields, Muelle de los Bueyes, Nueva Guinea and the Department of Río San Juan **MAG**: Siuna, Bluefields, Nueva Guinea, Muelle de los Bueyes and Tortuguero **MEFCCA**: Headquarters in Bilwi and Bluefields, and a network of technicians that cover both regions. **INTUR**: Headquarters in Bilwi and Bluefields, promotion of rural tourism **PGR:** Bilwi, Siuna, Bluefields, Nueva Guinea and Rama **INTA**: Waspam, Siuna, Bluefields and Kukra Hill
	GRACCN GRACCS regional governments	Execute the regional government mandate (Laws 28 and 445). Channel and develop resources that benefit the ethnic and indigenous communities on the Caribbean coast. Ensure rational use of natural resources in the region through SERENA.	**SERENA,** directs the Environmental Commission at regional level and participates at municipal level. Fulfills a legal and technical role in matters to do with exploitation of natural resources in autonomous regions. Has offices at regional level and maintains fluid coordination with municipalities, GTIs and environmental sector institutions.
	Municipal governments	Legal mandate legal (Law 40) Promote municipal development. Respond to demands of municipal population.	Link to ER through the Office of Natural Resources and the Environmental (DIGAM) and the Risk Management Unit. Promoting sustainable development of natural resources.

		Facilitate municipality's management processes.	Grant approval for exploitation and use of natural resources.
	23 indigenous and Afro-descendant territorial governments and community governments	Protected by Laws 28 and 445, UN Declaration on the Rights of Indigenous Peoples and ILO Convention 169; exercise control over natural resources in their territories. Owners of the majority of forest existing in the country.	Administration of natural resources in their territory, exercising control of the territory, encouraging rational use and assuming responsibility for their defense and protection. Grant approval for exploitation and use of natural resources
Forestry and Agroforestry Communities	Campesino population	ILO Convention 169. Law on Cabinets of Citizen Power, Law on Citizen Participation, Law on Equality of Opportunity.	Aware of environmental problems in their territory and are the main voices to point out the problems in their communities, considered to be the least corrupt in negotiations over the resources they have. Implementing and developing environmentally friendly practices, making rational use of forest resources. Active participation in activities and working days for the environment.
	Organized groups with their own initiatives—associations of women and young people		
	Community agroforestry cooperatives		
	Network of Private Reserves		Fostering and developing rations use of their forest resources. Ensuring their sustainability.
Private Platform of Forest Owners	Businesses and owners of forests, forest	Promote development of private reserves with a focus on business.	Able to implement sustainable management, adopting environmentally friendly practices through use of organic fertilizers, promote

	plantations and mining		use and application of established environmental technical standards.
	UNAG	Develop businesses in the rural and environmental sectors , Plantations of African palm, bamboo, teak, coconut.	
Agricultural Productive Sector	Livestock farmers	Strengthen the associations of agricultural and livestock farmers. Support small and medium producers with integrated productive programs and projects. Improvement of family economies and adoption of agroecological technologies.	Can encourage new productive technologies through them and adaption of environmentally friendly practices. Can provide important input on impacts on the economy that can result from the ENDE strategy. Greater presence in Waslala, Mulukuku, Nueva Guinea
	Coffee farmers		
	Cooperatives		
	Universities and INATEC		
Academic Sector	CADPI, MASAGNI, Acción Médica Cristiana, FUNDENIC Fundación del Rio, ALISTAR, IPADE, ANACC, others	Contribute knowledge and experience in research and technological innovation for climate change mitigation and adaptation. Academic training of students.	Formation of new values in the region with a vision of defense and protection of the environment
Social Organizations	Print media, radio, Web, others	Manage and channel resources from external cooperation for implementing social, productive and community health projects with prior consent and authorization of the communities in a transparent and legitimate	Bilateral execution Availability of economic resources Promote social participation in all processes Ensure transparent execution and progress of all projects

		manner and with direct involvement in all phases of the project, including decision-making power in management of financial resources.	
Mass Media	Agencies of the United Nations, European Union, GIZ, FAO, bilateral cooperation	Inform the public. Promote discussion on environmental protection. Help monitor environmental and social matters.	Responsible for diffusion at all levels to achieve greater awareness about environmental issues in order to achieve a change in attitude about the environmental problem.
External Cooperation	Police	Manage and channel resources from external cooperation for reduction of deforestation and forest degradation. Promote ENDE in external cooperation.	
Military and National Security Institutions	Nicaraguan army	Ensure public order and security. Protect and support actions of state institutions. Do research on occurrence of crimes against the environment.	Guarantee the application of justice to offenders that commit environmental crimes; therefore must be more aggressive in application of justice.
	Illegal loggers	Ensure the defense and sovereignty of the national territory. Support work to protection natural and cultural heritage of Nicaragua. Support the battle against illegal activities.	Guarantee the protection and defense of national patrimony,.

Informal and Illegal Commerce and Land Sector	Speculators and large landowners	Extracting the greatest amount of timber resources negatively impacts conservation of forest resources.	These groups have strong presence in the region and are main cause of degradation and deforestation in forests on indigenous lands, acting as an organization with neither scruples nor respect for the life of the communities.
	Colonists and squatters on indigenous lands	Amass the most land possible.	
		Seize land without written permission of its owners.	

Appendix 6.1-2: RAAS Government Autorization for presenting the ER-PIN

GOBIERNO REGIONAL AUTÓNOMO COSTA CARIBE SUR
CONSEJO REGIONAL
Secretaria de Recursos Naturales y del Ambiente
Bluefields - Nicaragua

SERENA GRACS

21 de agosto de 2015

Cra. Juanita Argeñal
Ministra MARENA
Su Despacho

Cro. Javier Gutiérrez
Coordinador Proyecto ENDE-REDD+
Su Despacho

Asunto: *Autorización para presentar el documento "Nota de Idea del Programa reducción de Emisiones (ER-PIN)" al Grupo de Trabajo I.*

Señores Ministra y Coordinador:

Nos dirigimos a ustedes en el marco del grupo de trabajo interinstitucional formado en la Región de la Costa Caribe Sur, para la construcción, desarrollo y Consulta del documento ER-PIN.

Nuestras autoridades del Gobierno Regional consideran que se han respetado los procesos y normas para llevar a cabo las consultas en el territorio; así como la participación de forma inclusiva de nuestras autoridades en todo el proceso de construcción del documento.

Por lo anterior, consideramos adecuado y brindamos la autorización para presentar el documento ER-PIN al Grupo de Trabajo I.

Agradeciendo su atención al presente.

Fraternalmente,

MS.c Kirkman Joe Roe
Secretario Ejecutivo SERENA-GRACCS
Presidente de Comisión CRACCS

GOBIERNO REGIONAL COSTA CARIBE SUR · REPUBLICA DE NICARAGUA · AMERICA CENTRAL · BLUEFIELDS, R.A.C.C.S.

Dirección: Residencial El Cortijo, gasolinera UNO 50 varas arriba, casa No 12, Bluefields: Costado Oeste Parque Reyes. Teléfonos Managua Teléfonos 22669582 – 23250628; Bluefields Tel: 25720110/25721541

Appendix 6.1-3: ENDE Workgroup I Autorization for presenting the ER-PIN

Gobierno de Reconciliación y Unidad Nacional
El Pueblo, Presidente!

2015 Vamos Adelante!

GOBIERNO REGIONAL AUTONOMO COSTA CARIBE NORTE
CONSEJO REGIONAL AUTONOMO COSTA CARIBE NORTE
GRACCN-CRACCN

Bilwi, RACCN, 24 de Agosto de 2015

A: Cra. Juanita Argeñal
Ministra MARENA
Su Despacho

Cro. Javier Gutiérrez
Coordinador Proyecto ENDE-REDD+
Su Despacho

Asunto: Autorización para presentar el Documento "Nota de Idea del Programa Reducción de Emisiones (ER-PIN)" al Grupo de Trabajo I.

Señores Ministra y Coordinador:

Con gran respeto y consideración nos dirigimos a ustedes en el Marco del Grupo de Trabajo Interinstitucional formado en la Región de la Costa Caribe Norte, para la Construcción, Desarrollo, Dialogo y Consulta del Documento "Nota de Idea del Programa Reducción de Emisiones", (ER-PIN).

Nuestras Autoridades del Gobierno Regional Autónomo de la Costa Caribe Norte y Equipo de Asesoría Técnica del Comité Consultivo Forestal Ambiental CCFA, consideran que se han respetado los procesos y normas para llevar a cabo el Dialogo y las consultas en el Territorio; así como la participación de forma inclusiva de nuestras autoridades Regionales, Territoriales, Municipales y Comunales en todo el proceso de construcción del documento, incorporando así todas aquellas consideraciones y aspectos técnicos necesarios que aseguren la buena conducción de este proceso, el respeto y reconocimiento de los Pueblos Indígenas y Afrodescendientes cumpliendo asi con los principios de Conocimiento Libre, Previo e Informado .

Por lo anterior, consideramos adecuado y brindamos la autorización para presentar el documento ER-PIN al Grupo de Trabajo I.

Agradeciendo su atención al presente.

Fraternalmente,

MSc. Carlos Alemán Cunningham
Coordinador de Gobierno
Costa Caribe Norte

Cra. Yanera Allen Martínez
Presidenta
Consejo Regional

FE, FAMILIA Y COMUNIDAD! EN VICTORIAS!

CRISTIANA, SOCIALISTA, SOLIDARIA!

Appendix 7.1-1 Responsibilities of the bodies that make up the ER-P working groups

BODIES	Role in ER-PIN
Working Group I MARENA, MAG, FONADEFO, MEFCCA, MHCP, MIFIC, MTI, MEM, INAFOR, INETER, DEFENSA CIVIL, SINAPRED, regional autonomous governments of the Caribbean coast (GRACCN, GRACCS). GTI representation.	This group should ensure that the political will flows toward Working Group II and should ensure national alignments to ● Reinforce and increase capability of forestry and environmental institutions at national and subnational levels to promote actions for protection and sustainable management of forests. ● Broaden institutional coverage at the subnational level through contribution of means and equipment to the GTIs and institutions linked to the topic. ● Strengthen the level of coordination of the country's public policies with the instruments designed for conservation of natural resources. ● Increase investment in forestry control and application of the law for protection of natural resources. ● Assist with forums and discussion spaces for the design, enrichment and inclusion of the topic of the environment in the policy agenda.
Working Group II Specialists of MARENA, MAG, INAFOR, INETER, DEFENSA CIVIL, FONADEFO, Forest and Environment Advisory Council (CCF-A), National Assembly, CONADETI, CONAGAN, Secretariats of Natural Resources (SERENA) and of regional autonomous governments, external cooperation (World Bank, GIZ, FAO, UNDP).	In general, this group should ensure execution of the proposals and activities once they are validated and approved by Working Group III and I, respectively. ● SERENA with support of MARENA, will coordinate and ensure execution of activities at the regional level. ● Implementation of a mechanism for claims and grievances on deforestation and forest degradation. ● MEFCCA will be one of the stakeholders that carries out actions to modernize and intensify agricultural, livestock and forestry systems and strengthen the commercial framework and value chains for agricultural and forestry products. ● INAFOR and FONADEFO will conduct matters related to establishment of incentives (Forest Environmental Bond), for conversion of production systems, compensation for environmental services of carbon capture, and conservation of hydric resources as a co-benefit.
Working Group III Territorial indigenous governments (GTIs), municipalities, cooperatives, communities, owners of forests and private wildlife reserves, Cabinets for Citizen Participation	The role performed by these institutions is related to validation of the proposals and their implementation. This group is made up of the main recipients of benefits proposed to avoid deforestation and forest degradation, so once approved, activities should ensure: ● Adaptation of methodologies and technologies for management of natural resources. ● Improve and efficiently apply systems of traceability and forest certification as a strategy to encourage sustainable forest management with a commercial focus.

(GPC), members of youth brigade, agricultural producers, women's organizations.	● Improve management of protected areas, forests and plantations. ● Prevent and control forest fires. ● Increase forest area under sustainable management of forests through strengthening the system of forestry governance and promotion of community forestry. ● Management of natural-regeneration areas, focusing on areas affected by Hurricane Felix. ● Reforestation and forest restoration through the National Reforestation Crusade.

Appendix 7.5-1A. Administrative and institutional costs of applying ER Program actions

Activity	Forest area (ha)	Administrative and institutional costs ($/Year)	Institutional costs per hectare ($/ha)
Management/Conservation of PAs	500,000	1,002,167	9.92
Payment for Environmental Services	100,000		
Plantations and Agrosilvopastoral Systems	410,000		
Farm Intensification Credit	70,000	5,047,956	721.14
Community Forestry	70,000	1,761,278	125.81
Sustainable Forest Management	70,000		
Total	**1,220,000**	**7,811,402**	**285.62**

Appendix 7.5-1B. Investment costs of implementing ER Program Actions

Activity	Forest area (ha)	Investment ($/Year)	Investment per hectare ($/ha)
Payment for Environmental Services	100,000	674,000.	67.40
Reforestation (Incentive)	100,000	6,000,000	600.00
Reforestation (CNR)	100,000	6,000,000	600.00
Agroforestry Systems	100,000	10,000,000	1,000.00
Silvopastoral Systems	70,000	2,450,000	350.00
Natural Regeneration Management (H. Felix)	40,000	$400,000	100.00
Total	**510,000**	**25,524,000**	**452.90**

Appendix 7.5-2A: Financial Plan (Use of Expected Funds)

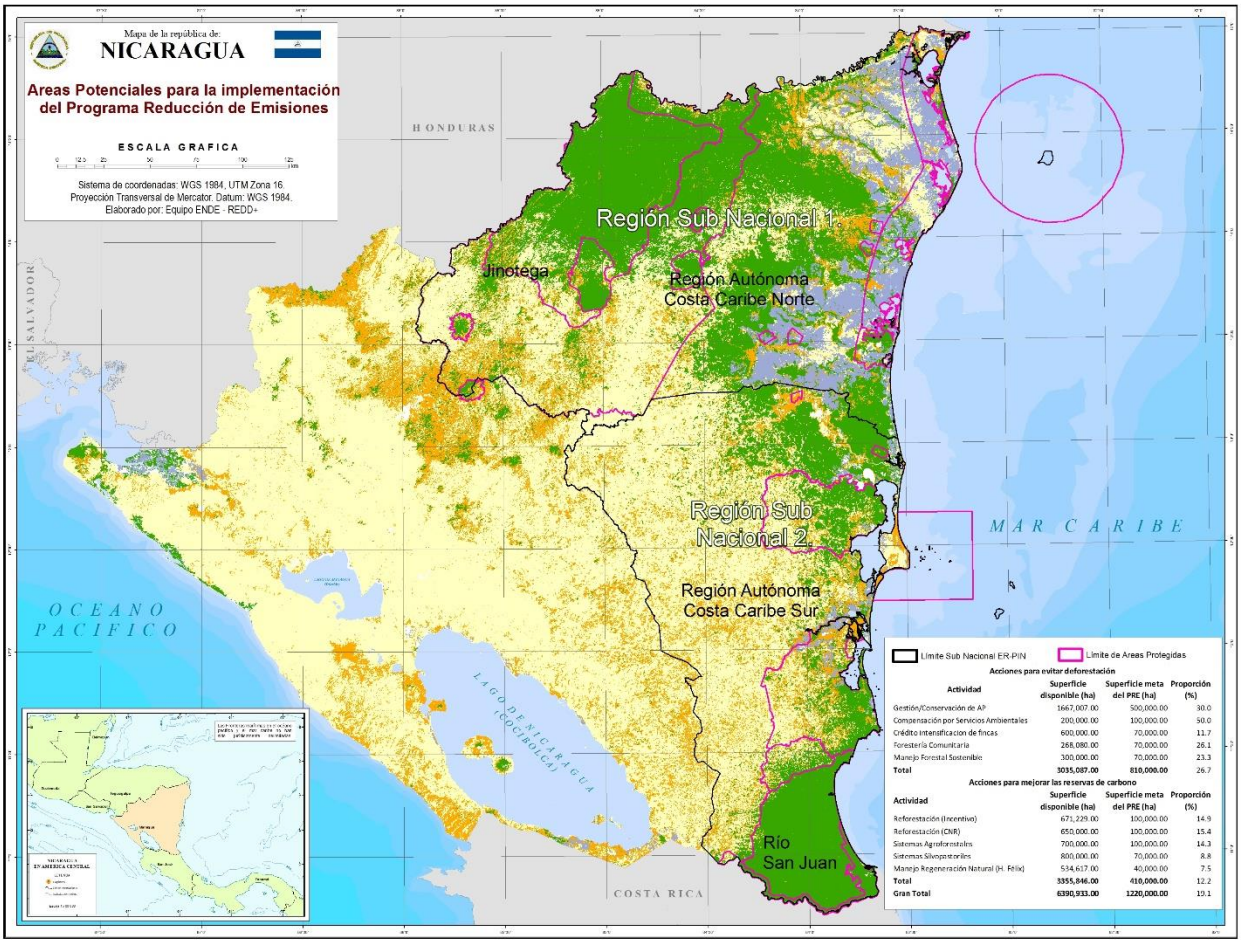
Description		Breakdown per year ($)										Total
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
Costs related to development of the ER Program	Readiness Phase, Establishment of reference level and monitoring of ER, etc..	$950,000	$450,000	$3,566,666	$1,666,666	$1,666,666 7	$1,000,000				$1,000,000	$10,300,000
Costos de operación e implementación	Investments	$25,524,000	$25,524,000	$25,524,000	$25,524,000	$25,524,000	$25,524,000	$25,524,000	$25,524,000	$25,524,000	$25,524,000	$255,240,000
	Administrative and institutional costs for implementing ER-P actons	$7,811,402	$7,811,402	$7,811,402	$7,811,402	$7,811,402	$7,811,402	$7,811,402	$7,811,402	$7,811,402	$7,811,402	$70,302,618
Costs of financing (ex.: interest payments on loans												
Other costs												
	Total Costs	**$34,285,402**	**$33,785,402**	**$36,902,068**	**$35,002,068**	**$35,002,068**	**$34,335,402**	**$33,335,402**	**$33,335,402**	**$33,335,402**	**$34,335,402**	**$343,654,020**

Appendix 7.5-2A: Financial Plan (Use of Expected Funds)

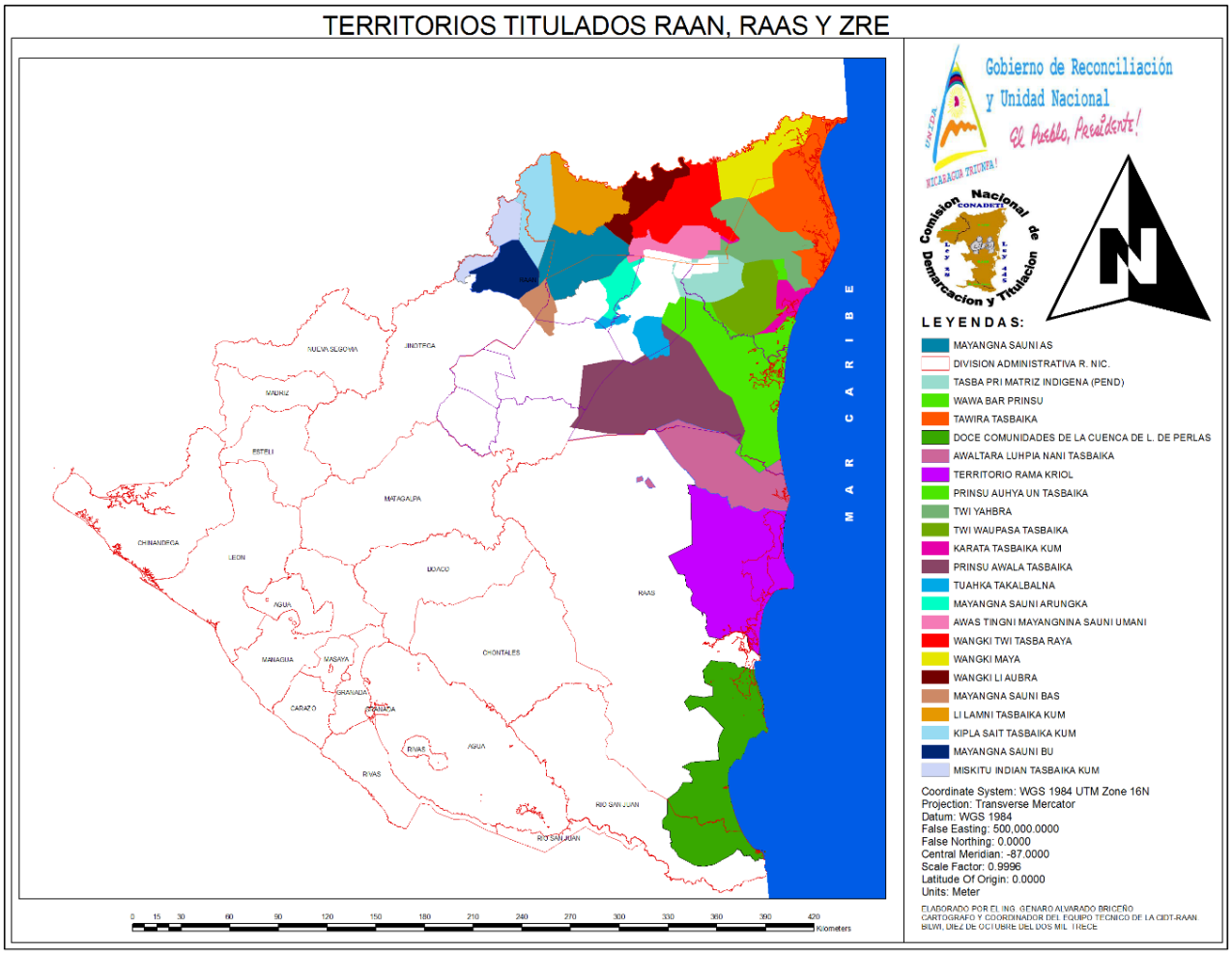
Description		Breakdown per year ($)										
		Año 1	**Año 2**	**Año 3**	**Año 4**	**Año 5**	**Año 6**	**Año 7**	**Año 8**	**Año 9**	**Año 10**	**Total**
Donations	Preparation of Third National Communication for the UN Framework Convention on Climate		$500,000									$500,000
	Reduction of Deforestation and Forest Degradation Strategy for NICARAGUA (ENDE)	$950,000	$950,000	$3,566,667	$1,666,667	$1,666,667						$8,800,000
Loans	Environmental Program for Management of Disasters and Climate Change	$2,600,000										$2,600,000
Funds from national budget for the different programs		$7,811,402	$7,811,402	$7,811,402	$7,811,402	$7,811,402	$7,811,402	$7,811,402	$7,811,402	$7,811,402	$7,811,402	$78,114,020
Income from REDD+ activities (ex.: sale of agricultural products)												
Investment Funds from the Private Sector Needed to Fund the ER-P	Private Investment Inversion privada de impacto social y ambiental (Incluye Apoyo de Proyectos de Desarrollo y Crédito)	**$14,222,460**	**$14,222,460**	**$14,222,460**	**$14,222,460**	**$14,222,460**	**$14,222,460**	**$14,222,460**	**$14,222,460**	**$14,222,460**	**$14,222,460**	$142,224,600
Income from of Emission Reductions Transactions	Carbon Fund FCPF ER-Program	$11,141,540	$11,141,540	$11,141,540	$11,141,540	$11,141,540						$55,707,700
	Carbon Transactions from bilateral, multilateral and voluntary agreements						$11,141,540	$11,141,540	$11,141,540	1$1,141,540	$11,141,540	$55,707,700
Total Sources (Before Tax)		$36,725,402	$34,625,402	$36,742,069	$34,842,069	$34,842,069	$33,175,402	$33,175,402	$33,175,402	$33,175,402	$33,175,402	$343,654,020
Before Tax Net Income (=Total Sources - Total Use)		**$2,440,000**	**$840,000**	**$-160,000**	**$-160,000**	**$-160,000**	**$-1,160,000**	**$-160,000**	**$-160,000**	**$-160,000**	**$-1,160,000**	**0**

Appendix 9.1-1. Timeline of products for monitoring, reporting and verification (MRV)

Appendix 12.1-1. Emissions Reduction Program potential areas versus goal areas



Appendix 14.1-1 Titled Indigenous Territories



Appendix 14.1-2 Legal framework associated with ENDE-REDD+

LEGAL FRAMEWORK ASSOCIATED WITH ENDE-REDD+	
LEGAL NORM	**SCOPE**
Political Constitution of the Republic of Nicaragua. Approved February 10, 2014. Published in *La Gaceta* No. 132 on February 18, 2014.	Recognition of the different forms of ownership; the existence of indigenous and Afro-descendant peoples and communities, their organization, culture, language, use and enjoyment of natural resources; to their own forms of organization; recognizes the land as alive and worthy of dignity; recognizes the just distribution of riches; recognizes the right of all Nicaraguans to live in a healthy environment.
Presidential Decree No. 70-2006. General Land Policy Framework. Approved 30 October, 2006. Published in *La Gaceta* No. 217 on November 8, 2006.	One of the most important aspects considered in the Land Policy Framework is the guarantee of the rights of landed property consigned in Articles 44, 99 and 108 of the Political Constitution of Nicaragua, in particular the unrestricted respect of private property, referring to the constitutional precept that prohibits confiscation of goods and the guaranteed of ownership of the land to all owners that work it productively and efficiently.
Decree No. 69-2008. National Policy for the Sustainable Development of the Forestry Sector of Nicaragua. Approved November 4, 2008. Published in *La Gaceta* No. 3 on January 7, 2009.	Focus on high-level citizen participation, promoting mechanisms of forest governance and direct participatory consensus as an opportunity that facilitates planning; formulation processes, implementation, harmonization and evaluation of agricultural and forestry legal and political frameworks, programs and projects at community, municipal, regional and national levels.
Law 217. General Law on Environment and Natural Resources. Approved 17 January, 2014. Published in *La Gaceta* No. 20 on 31 January, 2014.	The environment and natural resources are national patrimony and constitute the basis for sustainable development in the country; their ownership, use and exploitation are subject to laws on this matter. This law also establishes that the right of ownership has a social-environmental function that limits the conditions of its absolute, abusive and arbitrary exercise in conformity with the provisions of the law. Additional principles and concepts related to climate change are added through the reform, among them: a) adaptation to climate change; b)

	climate change; c) impact study on climate change; d) greenhouse gases; e) mitigation of climate change; f) disaster prevention; g) vulnerability to climate change. It also integrates the concepts of sustainable consumption, cleaner production and technology, water recharge zones, as well as financial instruments to support environmental management.
Law 462. Law of Conservation, Promotion and Sustainable Development of the Forestry Sector. Approved 23 June, 2003. Published in *La Gaceta* No. 168 on September, 2003.	Among the most important contributions contained in the Law for Conservation, Promotion and Sustainable Development of the Forestry Sector and its Regulation is establishment of a legal system for conservation, promotion and sustainable development as the principal axis of national forest policy; it also considers the issue of production of oxygen and carbon fixation; it places special attention on awarding owners rights of use and exploitation that belong to them, encouragement and incentives for forest development, and the obligation to ensure protection of forest resources. This legislation gives special attention to conservation and restoration of soils and increases efforts in programs of forestry education, culture and training programs and sets the penalties for administrative infractions.
Law 28. Statue of Autonomy of the Atlantic Coast Regions of Nicaragua Approved September 7, 1987. Published in *La Gaceta* No. 238 on October 30, 1987.	Establishes the autonomy of the regions where the communities of the Atlantic coast of Nicaragua are and recognizes the rights and obligations that correspond to the inhabitants. It also highlights promotion of rational use and enjoyment of waters, forests, communal lands and defense of its ecological system.
Decree No.3584. Regulation of Law 28. Approved July 9, 2003. Published in *La Gaceta* No. 186 on October 2, 2003.	It includes the concepts of “communal land” and “communal property.” It establishes rational use of waters, forests and communal lands, the defense of its ecological system and regional exploitation of natural resources.
Law 445. Law of the Regime of Communal Property of the Indigenous Peoples and Ethnic Communities of the Autonomous Regions of the Atlantic Coast of Nicaragua and the Bocay, Coco, Indio and Maíz Rivers.	It establishes more clearly the topic of land ownership. It reaffirms the right to communal property of indigenous and Afro-descendant peoples and their rights over their lands and the natural resources on them. It empowers the communities to participate fully and effectively

Approved January 22, 2003. Published in *La Gaceta* No. 16 on January 23, 2003.	when exploitation of their resources comes up. It limits actions of municipal authorities with respect to the communal property rights of these communities.
Law 807. Law of Conservation and Sustainable Use of Biological Diversity. Approved September 5, 2012. Published in *La Gaceta* No. 200 on October 19, 2012.	Its objective is to regulate conservation and sustainable use of the country's biological diversity, guaranteeing an equitable and just participation of the benefits derived from them, with special attention to indigenous and Afro-descendant communities, along with respect and recognition of the rights to intellectual property, forms of traditional and customary use by the local communities.