Readiness Preparation Proposal for Reducing Emissions from Deforestation and Forest Degradation

Date of Revision

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Forest Carbon Partnership Facility (FCPF)

Dominican Republic

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Summary of readiness proposal

Readiness proposal development dates (from start to presentation):	November 2011 to November 2013
Readiness proposal implementation deadline (from month /year to month/year)	January 2014 to July 2017
Estimated total budget (in US$):	US$7,115,000
Expected funding sources:	World Bank: 53% Dominican Government: 22% REDD-plus / CCAD / GIZ: 25%
Government designated signatory of the readiness proposal grant request, (name, title, affiliation):	Dr. Bautista Rojas Gomez Minister of Environment and Natural Resources
Key outcomes expected from the readiness proposal implementation process:	Outcomes: (1) Stakeholder capacity building. (2) Structuring and/or adaptation of the institutional, regulatory, and technical framework enabling implementation of National REDD-plus Strategy activities (3) Strategic and operational proposal for the development of national references (NRs) on CO_2 emissions from deforestation and forest degradation (DFD) in the Dominican Republic. (4) Proposal for designing the participatory national forest monitoring system. (5) Development and adoption of protocols for monitoring vegetation cover and

	carbon content. (6) Identification of potential social, environmental, and economic impacts from implementation of the National REDD-plus Strategy projects (7) Participatory construction of an the National REDD-plus Strategy

EXECUTIVE SUMMARY

Organization and consultation

Estimates of the area of the country's forest cover made since 1985 have produced figures of 22% or 10,770 km² in 1990 (FAO, 1995) and 32.5% or 15,750 km² in 1995 (FAO, 1997). According to the assessment of vegetation cover and land use conducted in 1998 by the Inventory and Natural Resources Department (DIRENA), using Landsat TM5 photo-interpretations, 13,266 km² or 27.5% of the country was covered by forest, comprising tracts occupied by broadleaf, pine, dry, and wetland species (Tolentino and Peña, 1998).

The latest coverage assessment performed in 2012 produced the interesting finding that vegetation cover in the Dominican Republic has expanded by 12.2% over the past 15 years; but the report fails to sp00ecify the state of conservation and development level of the existing forests.

Legislation, loopholes, cadastre, tenure and management of land areas

At present, while the Dominican Republic has no specific laws defining the carbon ownership regime, it does have legal instruments that recognize the ecosystemic services provided by natural resources that are owned by the State, society at large, or otherwise in the "public domain" (Mejia, J. 2013: Annex 4).

The Dominican Republic's National Protected Areas System (SINAP) was created by Protected Areas Sector Law (Law 202-04) and comprises a total of 123 protected areas, grouped into six management categories, covering a total land and sea area of 25,472 km^2. Of this, the country's territorial protected waters occupy 13,225.96 km^2, and protected land areas cover 12,033 km^2, equivalent to 25% of the country's total area.

In terms of its social and economic characteristics, the Dominican Republic has a population of 9.2 million, of whom 68% live in urban areas; an average annual growth rate of 1.6%; and an unemployment rate of 17%. Student enrolment at the basic or primary school level represents 85% of the target population; middle or secondary school coverage is 59%, and university or higher education coverage is 11%.

Estimates of rates of deforestation in the Dominican Republic and its causes have been varied and diverse, owing to the different methodologies used in each case. With support from the Forest Carbon Partnership Facility (FCPF) the aim is to sharpen the focus of reducing emissions from deforestation and forest degradation (REDD-plus) in the Dominican Republic, and to strengthen aspects of forestry-sector development and governance, the precise specification priority REDD-plus activities, and issues related to the technical assistance, capacity building, operations and consultation processes required for preparing the National REDD-plus Strategy (referred to locally as *Estrategia Nacional REDD+* or *ENREDD+*)

This proposal aims to make an in-depth analysis of the underlying causes of increases in the country's vegetation cover, and to apply a methodology for calculating the additionality and monitoring of the social and environmental impacts arising from implementation of the National REDD-plus Strategy at the national and subnational levels. One of the main challenges of the National REDD-plus Strategy readiness phase will be to estimate the potential impacts, both positive and negative, that its implmentation could cause. The compliation of basic background information for the development of both the reference levels and the country's National Forest Monitoring System, which basically involve requirements for mapping and allometric inventories and functions in the current (baseline) situation, will make it possible to launch asystematic monitoring process to visuaize and quantify the changes in land use and carbon stocks caused by implementation of the country's REDD-plus strategy. This essentially involves periodic updating of the fundamental elements needed for the quantification (mapping, inventory, and allometric functions).

Implementing the National REDD-plus Strategy mechanism in the Dominican Republic faces several major challenges. In particular, loopholes and weaknesses in land tenure and carbon rights need to be resolved, along with problems caused by the lack of land use management, the absence of a forestry sector law, centralised state administration, the lack of a scientific basis for monitoring and standardization, and extensive difficulties in the management of sectoral incentives. Nonetheless, the diagnostic assessments made thus far suggest optimistic scenarios for implementing the National REDD-plus Strategy.

National and regional forums for the National REDD-plus Strategy are REDD-plus mechanisms created for information exchange, training, participation, and stakeholder consultation, and for

receiving comments and complaints. The REDD-plus forums work in coordination with the national and regional Forest Dialogue Forums (FDFs). The Provincial Environment Councils are dispute settlement mechanisms that will also provide support in implmenting the National REDD-plus Strategy.

Preparation of the Consultation

This proposal was prepared as the result of national and subnational activities undertaken in different parts the country in the period November 2011-July 2012, in which ten workshops were held to prepare and disseminate it. The focuses of this R-PP respond to the interests of community stakeholders and to the 2010-2030 National Development Strategy (END), which governs all development programs in the Dominican Republic during that period.

During preparation of the National REDD-plus Strategy, special efforts will be made to identify and strengthen "stakeholder mapping" and the key contributions identified by stakeholders for combating and transforming the "drivers"of deforestation in rural areas of the Dominican Republic. An initial process was successfully implemented across the length and breadth of the country with support from the Regional REDD / CCAD / GIZ program. Parts of this are shown in Annex 12 of this document.

The indigenous and local community dimension

The Dominican Republic has no indigenous ethnic groups that have descended from populations that were inhabiting the country at the time of colonisation and who retain their own social, economic, cultural and political institutions. Nor does it have population groups whose social, cultural and economic conditions distinguish them from other sections of the national community, and whose status is regulated wholly or partly by their own customs, traditions or by special laws or regulations, as defined in Convention 169 of the International Labour Organisation (ILO, 1989. Geneva, Switzerland) Concerning Indigenous and Tribal Peoples in Independent Countries.

During preparation of the National REDD-plus Strategy, the Social and Environmental Assessment System (SESA) will flesh out preliminary findings on individual and collective ownership rights, in relation to forestry, environmental and legal issues; and it will also need to develop a deeper understanding of the risks caused by the Startegy's implementation to the

poorest and most disadvantaged population groups. The work plan proposed for National REDD-plus Strategy readiness includes consultations and studies with stakeholders and the communities that depend most on forests, to jointly address issues that remain undefined in relation to rights over land and natural resources, carbon rights and social protection entitlements (see Annex 15).

Drivers of deforestation, Forest Degradation and Recovery / the National REDD-plus Strategy Implementation Framework

Agriculture and livestock activities are directly responsible for over 60% of deforestation and forest degradation in the Dominican Republic, while mining, logging, urban expansion and tourism are the other causes. The existing diagnosis is nonetheless preliminary, and the aim is to study and analyze these phenomena more thoroughly during the National REDD-plus Strategy process, particularly in the context of the national economy, which is largely service-based. Preparation of the National REDD-plus Strategy will also quantify the relative importance of intersectoral interactions as drivers of deforestation and forest degradation —an issue that has not been evaluated thus far.

In several regions of the country, recent studies have revealed that forest areas are expanding and recovering, and preparations are currently under way to conduct a national forest inventory with a REDD-plus focus. This will verify the figures, identify the location of fragile areas and recovery zones, and perform the first national measurement of the carbon stock in the country's forests. That inventory will then be used to define the National System of Permanent Measurement and Monitoring of Forest Tracts.

Apart from locating and measuring the carbon stock held in forests, the National REDD-plus Strategy will consider aspects of land tenure and private and public rights over the land. For this purpose, regional advisory and management groups will be created, to discuss issues relating to how the benefits and incentives will be distributed, as well as conservation activities, forest use and restoration, and the establishment of an Environmental and Social Assessment System (SESA) which in turn will be linked to the Forest Monitoring System required by the National REDD-plus Strategy.

Development of a Reference Scenario

Work has started on mapping national forest cover, in alignment with the National REDD-plus Strategy requirements. The country has begun the short-term task of producing a National Forest Inventory, which will serve as an ex ante baseline for measuring the differences in biomass and carbon contributed by the National REDD-plus Strategy. To supplement this proposal, a number of specific and special activities are proposed that will need to be continued and specified as part of the National REDD-plus Strategy in the Dominican Republic.

The indicative budget proposes a forest monitoring strategy based on remote sensing; forest and carbon inventories; the development of allometric volume models; and information and data reporting systems. The proposed strategy will implement at least two pilot projects in the Dominican Republic during the readiness phase, to gain an in-depth understanding of needs and requirements and thus avert significant shortcomings in the future. The need to obtain good-quality and timely data to develop the strategy and implement the mechanism has been recognized as a major challenge at the pilot level. The "Yaque del Norte" pilot program has been chosen as the first national model for implementing "payments for environmental services" (PES), and reference technical and administrative applications are adapted in it for the National REDD-plus Strategy.

Design of a REDD-plus monitoring and evaluation framework

Account has also been taken of the needs of diagnostic assessments, studies, and the professional exchanges needed to develop a system of indicators for accurate and timely measurement of performance in implementing National REDD-plus Strategy readiness, and to ensure that this is completed in the period 2014-2017 at the lowest possible cost.

National REDD-plus Strategy structure, institutional accountability, and executing agency

Institutional arrangements and structures will be created for preparation of the National REDD-plus Strategy. The creation of a Forests and REDD-plus Coordination Agency (OCBR) has been proposed as the facilitation mechanism that will define the guidelines and provide for continuous coordination of the process.

The OCBR will be created by presidential decree and will be attached to the Ministry of the Environment and Natural Resources, with participants drawn from public institutions, civil society, and the private sector. Initially the OCBR could consist of one representative each from

the Ministry of the Environment (MARN), the Ministry of Agriculture (MAG), the Ministry of Economy, Planning and Development (MEPyD), together with a private sector representative, a civil society representative, and a representative of vulnerable groups. The OCBR's key strategic and operational plans will be consistent with the policies for these sectors, jointly and on a coordinated basis, pursuant to the guidelines of the National Development Strategy (END) and the national climate change policy.

The Coordination Committee will ensure full complementarity and no overlap in functions between the OCBR and other institutions that play an important role in implementing REDD-plus in the Dominican Republic.

Costs

The total cost of National REDD-plus Strategy readiness has been estimated at US$7,115,000 over a four-year period, with 24% of the investments projected for execution in 2014, 31% in 2015, 26% in 2016, and 19% in 2017. The project is currently being supported the Dominican Government and the Regional REDD-plus / CCAD / GIZ Program; and a special contribution of US$3.8 [sic: million ??] is expected from the United Nations Forest Carbon Partnership Facility (FCPF) to help meet this national and global challenge.

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ANPROFOR	Asociación Nacional de Profesionales Forestales [National Association of Forestry Professionals]
AP	Areas protegida [Protected Area]
APA	Asociación de Productores Agroforestales de Zambrana-Chacuey [Zambrana-Chacuey Agroforestry Producers Association]
ASOCLEM	Asociación Clemente Melo, Inc. [Melo Clemente Association, Inc.]
ASODEFOREST	Asociación de Productores Forestales de Restauración [Restauración Forest Producers Association]
ASODEFOS	Asociación para el Desarrollo Forestal Sostenible [Association for Sustainable Forestry Development]
ASONAHORES	Asociación Nacional de Hoteles y Restaurantes de la República Dominicana [National Association of Hotels and Restaurants of the Dominican Republic]
ASOPROFORJA	Asociación de Productores Forestales de Jarabacoa [Jarabacoa Forest Producers Association]
ASUDELASI	Asociaciones Unidas de la Sierra [United Associations of the Sierra]
AWP	Annual Work Plan
BA	Banco Agrícola de la República Dominicana [Agricultural Bank of the Dominican Republic]
BMZ	Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung [German Federal Ministry for Economic Cooperation and Development]
CAASD	Corporación de Acueductos y Alcantarillado de Santo Domingo [Santo Domingo Water and Sewerage Corporation]
CAD	Consorcio Ambiental Dominicano [Dominican Environmental Consortium]
CATIE	Centro Agronómico Tropical de Investigaciones y Enseñanza [Tropical Agriculture Research And Education Center]
CBC	Corredor Biológico del Caribe [Caribbean Biological Corridor]
CCAD	Comisión Centroamericana de Ambiente y Desarrollo [Central American Commission on Environment and Development]
CDB	Convenio sobre Diversidad Biológica [Convention on Biological Diversity]
CDM	Clean Development Mechanism

CEA	Consejo Estatal del Azúcar [State Sugar Council]
CEAJURI	Centro de Asistencia Jurídica [Legal Assistance Center]
CEDAF	Centro para el Desarrollo Agropecuario y Forestal [Center for Agricultural and Forestry Development]
CEDEMUR	Centro de la Mujer y Participación [Center for Women and Participation]
CEI-RD	Centro de Exportación e Inversión de la República Dominicana [Dominican Republic Export and Investment Center]
CEPROS	Centro de Estudios y Promoción Social [Social Studies and Advancement Center]
CEUR	Centro de Estudios Urbanos y Regionales [Urban and Regional Studies Center]
CFD	Cámara Forestal Dominicana [Dominican Chamber of Forests]
CFRN	Certificado de Retribución Fiscal Negociable [Negotiable tax reimbursement certificate]
CIEPO	Centro de Investigación y Educación Popular, Inc. [Center for Research and Popular Education, Inc.]
CITES	Convención Comercio Internacional Especies Amenazadas de Fauna y Flora Silvestres [Convention on International Trade in Endangered Species of Wild Fauna and Flora
CNCCMDL	Consejo Nacional para el Cambio Climático y el Mecanismo de Desarrollo Limpio [National Council for Climate Change and the Clean Development Mechanism]
CNE	Comisión Nacional de Energía [National Energy Commission]
CO_2	Carbon dioxide
COCODESI	Consejo Comunitario de Desarrollo de la Sierra, Inc. [Community Development Council of Sierra, Inc.]
CODOCACAO	Comisión Dominicana del Cacao [Dominican Cocoa Commission]
CODOCAFE	Comisión Dominicana del Café [Dominican Coffee Commission]
COENER	Comisión Nacional para la Política Energética [National Energy Policy Commission]
CONATEF	Comisión Nacional Técnica Forestal [National Technical Forestry Commission]
CONIAF	Consejo Nacional de Investigaciones Agropecuarias y Forestales [National Agriculture and Forestry Research Council]
COP	Conference of the Parties
CORAAPLATA	Corporación de Acueductos y Alcantarillado de Puerto Plata [Puerto Plata Water and Sewerage Corporation]
CORAASAN	Corporación de Acueductos y Alcantarillado de Santiago [Santiago Water and Sewerage Corporation]
CORAMOCA	Corporación de Acueductos y Alcantarillado de Moca [Moca Water and Sewerage Corporation]

CORAROMANA	Corporación de Acueductos y Alcantarillado de La Romana [La Romana Water and Sewerage Corporation]
CRFN	Certificado de Retribución Fiscal Negociable [Negotiable Tax Reimbursement Certificate]
CRIES	Comprehensive Resource Inventory and Evaluation System [Comprehensive Resource Inventory and Evaluation System]
CYN	Cuenca Yaque del Norte [Yaque del Norte river basin]
D	Normal diameter iameter (1.3 m above ground)
DAR	Diámetro a la altura de la rodilla [diameter at knee height]
DECCC	Plan de Desarrollo Económico Compatible con el Cambio Climático [Plan of Economic Development Compatible with Climate Change]
DFD	Deforestation and Forest Degradation]
DGDF	Dirección General de Desarrollo Fronterizo [Directorate General of Border Development]
DGF	Dirección General Forestal [Directorate General of Forestry]
DGM	Dirección General de Minería [Directorate General of Mining]
DGOT	Dirección General de Ordenamiento Territorial [Directorate General of Land-use Management]
DIARENA	Dirección de Información Ambiental [Directorate of Environmental Information]
DIRENA	Departamento de Inventario y Recursos Naturales [Inventory and Natural Resources Department]
DNP	Dirección Nacional de Parques [National Parks Directorate]
DR	Dominican Republic
ECLAC	Economic Commission for Latin [America and the Caribbean
EESA	Evaluación estratégica social y ambiental [Strategic Social and Environmental Assessment]
EGEHID	Empresas Generadoras de Energía Hidroeléctrica [Hydroelectric Power Generation Companies]
EIA	Estudios de Impacto Ambiental [Environmental Impact Assessment]
END	Estrategia Nacional de Desarrollo [National Development Strategy]
Enda Dom	Enda Dominicana [Enda Dominicana]
ENREDD+	National REDD-plus Strategy
ERC	Evaluación de Riesgos de Corrupción [Corruption Risk Assessment]
ESMF	Environmental and Social Management Framework
ESNACIFOR	Escuela Nacional de Ciencias Forestales, Honduras [National School of Forestry, Honduras]

EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FCPF	Forest Carbon Partnership Facility
FDF	Forest Dialogue Forum
FECADESJ	Federación de Caficultores y Agricultores para el Desarrollo de San Juan del Sur [Federation of Coffee Growers and Farmers for the Development of San Juan del Sur]
FECAINMAT	Federación de Peasants Independientes Mamá Tingo [Mama Tingo Independent Peasant Federation]
FEDECARES	Federación de Caficultores del Sur[Southern Coffee Growers Federation]
FEGRUCA	Federación de Grupos Peasants de Villa Trina [Villa Trina Federation of Peasant Groups]
FEPROBOSUR	Federación de Productores de Bosque Seco del Suroeste [Federation of Producers of the Southwest Dry Forest]
FEPROCA	Federación de Productores y Peasants Azuanos [Azua Producers and Peasant Federation]
FIDEP	Fundación de Integración y Desarrollo de Elías Piña [Elias Pina Integration and Development Foundation]
Fondo MARENA	Fondo Nacional de Medio Ambiente y Recursos Naturales [MARENA Fund: National Fund for the Environment and Natural Resources]
FRA	Evaluación de los Recursos Forestales Mundiales [Forest Resources Assessment]
FSF	Fundación Sur Futuro [Sur Futuro Foundation]
FUNDACIPE	Fundación para el Desarrollo de Pedernales [Pedernales Development Foundation]
FUNDASEP	Fundación para el Desarrollo de Azua, San Juan y Elías Piña [Azua, San Juan, and Elías Piña Development Foundation]
FUNDASUR	Fundación para el Desarrollo del Sur [Foundation for the Development of the South
FUNDEPRO	Fundación para el Progreso [Foundation for Progress]
FUNDEPROCUNIPA	Fundación para el desarrollo y la protección de la cuenca del río Nizaíto, Paraíso [Nizaíto River Basin Development and Protection Foundation, Paraíso]
GDP	Gross domestic product
GEF	Global Environment Facility
GHG	Greenhouse Gases
GIS	Geographic Information Systems
GIZ	German Agency for International Cooperation
GORD	Gobierno de la República Dominicana [Government of the Dominican Republic]
GPS	Global Positioning System

GNT or GNT-ENREDD+	Grupo Nacional de Trabajo ENREDD+ [National REDD-plus StrategyWorking Group]
GTZ	German Agency for Technical Cooperation
ha	Hectare
IAD	Instituto Agrário Dominicano [Dominican Agrarian Institute]
ICM	Instituto Cartográfico Militar [Military Cartographic Institute]
IDB	Inter-American Development Bank
IDDI	Instituto Dominicano de Desarrollo Integral [Dominican Institute for Integrated Development]
IDEAC	Instituto de la Economía Asociativa [Institute of Associative Economics]
IDIAF	Instituto Dominicano de Investigaciones Agropecuarias y Foresta [Dominican Agriculture and Forestry Institute]
IGU	Instituto Geográfico Universitario [University Geographical Institute]
IIBI	Instituto de Biotecnología e Innovación [Institute of Biotechnology and Innovation]
IICA	Inter-American Institute for Cooperation on Agriculture
INAPA	Instituto Nacional de Aguas Potables [National Drinking Water Institute]
INDENOR	Instituto para el Desarrollo del Noroeste [Institute for the Development of the Northwest]
INDESUR	Instituto para el Desarrollo del Suroeste [Institute for the Development of the Southwest]
INDRHI	Instituto Nacional de Recursos Hídricos [National Water Resources Institute]
INF	Inventario Nacional Forestal [National Forest Inventory]
INTEC	Instituto Tecnológico de Santo Domingo (Universidad) [Santo Domingo Technological Institute (University)]
IPCC	Expertos sobre el Cambio Climático Intergovernmental Panel on Climate Change
ISA	Instituto Superior Agricultura [Superior Agriculture Institute]
JAD	Junta Agroempresarial Dominicana [Dominican Board of Agribusiness]
JASPADEBAO	Junta de Asociaciones para el Desarrollo de la Presa Tavera-Bao [Federation of Associations for the Development of the Tavera -Bao Dam]
JBN	Jardín Botánico Nacional "Dr. Rafael Ma. Moscoso" ["Dr. Rafael Moscoso" National Botanical Garden]
JICA	Japan Agency for Development
JUNTOPA	Junta Asociación [Association Board]
kg	kilogram
km	kilometer
LEMBA	Centro de Promoción Campesina LEMBA [LEMBA Peasant Advancement Center]

LGE	Ley General de Electricidad [General Electricity Law]
LPG	Liquefied Petroleum Gas
M&E	Monitoring and Evaluation
MAG	Ministry of Agriculture
MARN	Ministry of the Environment and Natural Resources
masl	Meters above sea level
MEPyD	Ministry of Economy, Planning and Development
MESCYT	Ministry of Higher Education, Science and Technology
MITUR	Ministry of Tourism
MOPC	Ministry of Public Works and Communications
MRV	Sistema de Medición, Reporte y Verificación [Measurement, Reporting and Verification System]
NF	Nivel de referencia forestal [Forest reference level]
NGO	Nongovernmental organization]
NR	Nivel de referencia [Reference level]
NRE	Nivel de Referencia de Emisiones [Emissions reference level]
OCB	Community-based organization
OEA	Organization of American States
ONAMET	Oficina Nacional de Meteorología [National Meteorology Office]
ONAPLAN	Oficina Nacional de Planficación [National Planning Office]
ONCC	Oficina Nacional de Cambio Climático [National Climate Change Office]
ONE	Oficina Nacional de Estadísticas [National Statistics Office]
ONMDL	Oficina Nacional de Mecanismo de Desarrollo Limpio [National Office for the Clean Development Mechanism]
OXFAM	Oxford Committee for Famine Relief
PANA	Plan Nacional de Adaptación al Cambio Climático National [Climate Change Adaptation Plan]
PES	Payment for Environmental Services
PES-CAY	Proyecto Piloto de Pago por Servicios Ambientales en la Cuenca Alta del rio Yaque del Norte [Pilot scheme on Payment for Environmental Services in the Upper Yaque del Norte River Basin]
PFN	Programa Forestal Nacional [National Forestry Program]
Plan Sierra	Plan de Desarrollo Integral de la Sierra [Sierra Comprehensive Development Plan]
PMF	Plan de Manejo Forestal [Forest Management Plan]
PN	Parque Nacional [National Park]
POT	Plan de Ordenamiento Territorial [Land Use Plan]

PROCARYN	Proyecto de la Cuenca Alta del rio Yaque del Norte [Upper Yaque del Norte River Basin Project]
PROMAREN	Proyecto de Manejo de Recursos Naturales de la GIZ [GIZ natural resource management project]
PROMUS	Promoción de la Mujer del Sur [Advancement of Women of the South]
PRONATURA	Programa de Protección al Medio Ambiente [Environmental protection program]
PUCMM	Pontificia Universidad Católica Madre y Maestra [Madre y Maestra Pontifical Catholic University]
READINESS	Preparation Phase for National REDD-plus StrategyImplementation
REDD-plus	Reducing Emissions from Deforestation and Forest Degradation
R-PP	Readiness preparation proposal
SEA	Secretaría de Estado de Agricultura [Office of the Secretary of State for Agriculture]
SEMARENA	Secretaría de Estado del Ambiente y los Recursos Naturales [Office of the Secretary of State for the Environment and Natural Resources]
SEMARN	Secretaria de Estado de Medio Ambiente y Recursos Naturales [Office of the Secretary of State for the Environment and Natural Resources]
SESA	Sistema de Evaluación Social y Ambiental [Social and Environmental Assessment System]
SFM	Sustainable Forest Management
SGP	Small Grants Program of the Global Environment Facility
SICA	Sistema de la Integración Centroamericana [Central American Integration System]
SINAP	Sistema Nacional de Áreas Protegidas [National Protected Areas System]
SMEs	Small and Medium Enterprises
SODIN	Sociedad para el Desarrollo Integral del Nordeste [Integrated Development Corporation of the Northeast]
STP	Secretariado Técnico de laPresidencia [Technical Secretariat of the Office of the President]
TFAP	Tropical forestry action plan
TNC	The Nature Conservancy
ToR	Terms of Reference
UAFAM	Universidad Agroforestal Fernando Arturo de Meriño [Fernando Arturo de Merino Agroforestry University]
UASD	Universidad Autónoma de Santo Domingo [Autonomous University of Santo Domingo]
UMF	Unidad de Monitoreo Forestal [Forest Monitoring Unit]
UN	UN: United Nations

UN-REDD-plus	UN REDD-plus Program
UNCCD	United Nations Framework Convention to Combat Desertification and Drought
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
USAID	U.S. Agency for International Development
UTESUR	Technological University of the South Technological University of the South
V	Tree Volume (m3)
WB	World Bank

COMPONENT 1: ORGANIZE AND CONSULT

1a. NATIONAL READINESS MANAGEMENT ARRANGEMENTS

Standard 1a the R-PP text needs to meet for this component:

National readiness management arrangements

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

Presentation

The Dominican Republic has specific climate change plans and targets in place. Article 10 of the 2010-2030 National Development Strategy (END) defines a strategic pillar "advocating a sustainably managed environment and adequate adaptation to climate change." To monitor this Strategy, climate change units have been created in several ministries, which coordinate minimally on REDD-plus issues.

A crosscutting structure was created by Law 64-00 (Ministry of the Environment), which defines Provincial Environment Councils as "the consensus mechanism that brings together all local, public and private, urban and rural stakeholders in the formulation and implementation of proposals to solve priority environmental issues in the province, with a view to protecting and making sustainable use of natural resources." The National REDD-plus Strategy will avail itself of this unit, since its role coincides with the aims of strengthening compliance with environmental regulations and policies; contributing to territorial environmental management plans (both municipal and provincial); promoting and encouraging informed public participation in projects and initiatives that affect the environment and natural resources; and helping stakeholders to fulfil their roles and responsibilities.

Forestry sector stakeholders have a permanent consensus-building and dialogue mechanism in the Dominican Republic. The Forest Dialogue Forum (FDF) has provided a platform for the "early dialogues" of many projects in the sector over the last ten years; and one of its main recent achievements has been to produce the Draft Forestry Law and submit it to the government. The fact that the FDF operates at the national and subnational levels has made it possible to take queries on REDD-plus to these forums without the need to create new one-off mechanisms. The FDF mechanism is comprised of local stakeholders representing various forest-related subsectors, the forestry industry, NGOs, academia, and government (see http://www.cedaf.org.do/eventos/forestal / index.html).

During this REDD-plus strategy readiness phase, the the aim is to more precisely define the members of the National Work Group (*Grupo Nacional de Trabajo* – GNT) and how to choose them, for ratification. It will also be important to develop efficient pluralistic mechanisms for dealing with the complaints and interests of stakeholder groups; and identify the best mechanisms for effective coordination of donors and funds for REDD-plus and the development of a web platform to disseminate the National REDD-plus Strategy proposals and progress. It has also been agreed to strengthen consultation through environmental councils in support of REDD-plus implementation, improve intersectoral arrangements, and incorporate gender issues and the "stakeholder map" during the National REDD-plus Strategy readiness phase.

1.a.1 Description of the legal framework

Social participation is an increasingly common practice in the Dominican Republic, which has legislation that recognizes and establishes participation mechanisms in various spheres of public life. This is a significant achievement that strengthens democracy and expands possibilities for participating more fully in national public policy processes. Social participation occurs preferably at subnational levels (municipalities, provinces), with the primary objective of supporting the local planning and management of development programs.

Institutional reform processes in the Dominican Republic began in the early 1990s, as part of the democratic transition that tentatively emerged following the collapse of the Trujillo dictatorship in 1961, before gaining more robust expression with the overthrow of authoritarian governments from 1978 onward. Civil society, supported by various organizations, has also

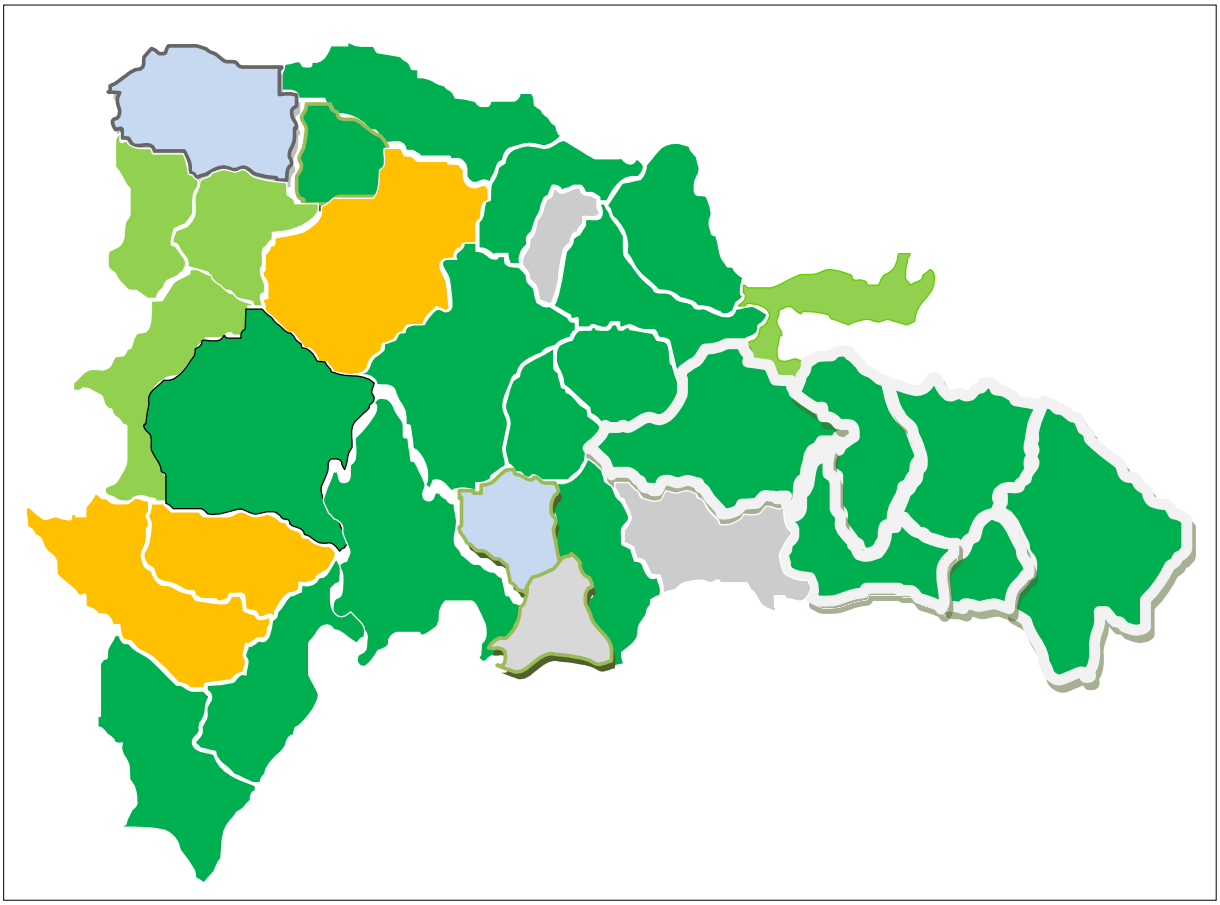
made significant progress in identifying strategies to reclaim participation spaces, making it one of the innovative aspects of Dominican politics in recent decades.

One such success is the establishment of citizen participation in a set of laws created during this period, including the General Education Law (Law 66 of 1997); Law 64-00 on the Environment and Natural Resources; Law 42-01 (the General Health Law); the Law on Planning and Public Investment (Law 498-06); Law 202-04 of 24 July 2004, the Sectoral Protected Areas Law; Law 176 on the National District and Municipalities; Law 200-04, on Free Access to Public Information; Law 122-05, Regulation and Promotion of Nonprofit Associations; the Constitution of the Dominican Republic, promulgated on 26 January 2010; and Law 01-12 the National Development Strategy, along with another 14 laws and several international treaties.

Article 6 of Law 64-00 of 2000 provides that "the State shall ensure that the country's communities and inhabitants participate in the conservation, management and sustainable use of natural resources and the environment; and will ensure access to accurate and timely information on their status and condition." Article 18 of the same law makes the Ministry of the Environment responsible for "promoting the involvement of civil society and community organizations in plans, programs and projects aimed at conserving and enhancing the environment."

Based on this legal framework, the Ministry of the Environment and Natural Resources has setup the Directorate of Public Participation, which is coordinating the creation of Provincial Environment and Natural Resource Councils to facilitate and build public awareness and participation in environmental management. About 75% of provincial jurisdictions have been covered thus far.

Figure 1. Administrative divisions in which Provincial Environment and Natural Resource Councils have been created.



Source: Ministry of the Environment and Natural Resources, 2013.

Law 202-04 on Protected Areas aims to guarantee the conservation and preservation of representative samples of the Dominican Republic's different ecosystems and natural and cultural heritage, to permanently secure and optimize the environmental and economic services that such ecosystems provide to present and future generations of Dominican society. This entails promoting active participation by all social sectors in the conservation and ecologically sustainable use of protected areas.

In 2007, Law 176-07 on the National District and the Municipios was passed, which invokes citizen participation as one of its principles and defines specific mechanisms for citizen participation in local administration which the municipalities will be required to implement. *"The municipalities will encourage citizen cooperation in municipal administration to promote local democracy and allow active community participation in decision-making processes on matters within their jurisdiction."* Law 176-07 also gives legal status to Participatory Municipal

Budgeting (PPM), thereby legitimizing a participation mechanism that had already been socially accepted in practice.

Similarly, Article 227 of Law 176-07, calls on the municipalities to encourage the development of civil society organizations, promote their participation in municipal management, provide them with full information on their activities and, as far as possible, afford them access to public media and financial support in carrying out their activities to the benefit of the community. The Law also specifies that the municipal budget will include specific item for this purpose.

Law 176-07 provides for the creation of three municipal bodies for citizen participation in municipal management. The key one is the Municipal Economic and Social Council, designed as a consultative body consisting of members of the municipal assembly (*Ayuntamiento*) and representatives from civil society organizations. Its purpose is to promote citizen and community participation in the processes of public policy-making, planning, and decision-making for municipal management. It also creates Municipal Monitoring Committees and Community Councils.

The municipal law also requires five channels of participation to be provided: the right to petition, municipal referendum, municipal plebiscite, open meeting, and participatory budget. Each of these modalities contributes to more transparent administration in nearly all of the council's bodies. These legal provisions have elicited an increase in demands from social organizations for greater participation in the management of local government.

Against this backdrop, a constitutional reform was debated and approved in 2009, resulting in a new constitution, which, unlike its predecessor, defines overt mechanisms for citizen in public-policy making. Thus, Article 2 of the Constitution promulgated on 26 January 2010 states that *"Sovereignty rests exclusively with the people, from whom all powers emanate, and who exercise that power either directly or through their representatives, in the manner specified in this Constitution and the laws."*

Article 97 *"establishes popular legislative initiative whereby a group of citizens, numbering no less 2% of those registered on the electoral roll, may present bills to Congress. A special law shall define the procedure and restrictions governing the use of this initiative."*

In Section III on Direct Local Participation Mechanisms, Article 203 of the Constitution defines several alternatives, and states that *"The Organic Law of Local Administration shall define the scope, requirements and conditions for exercising municipal referendum, plebiscite and policy initiatives with a view to strengthening the development of democracy and local governance."* Moreover, Article 206 on Participatory Budgeting provides that *"Municipal resources will be used through the progressive development of participatory budgets that promote integration and civic co-responsibility in the definition, implementation and monitoring of local development policies."*

Article 251 of the Dominican Constitution creates the Economic and Social Council, and states that *"Social partnership is an essential tool for ensuring organized participation by employers, workers, and other societal organizations in constructing and permanently strengthening social peace. This will be promoted by an Economic and Social Council with a mission advise to the government on economic, social and employment issues, the creation and operation of which shall be established by law."*

Article 39 of the Constitution, on Civil and Political Rights, addresses the issue of gender equality, and paragraph 5 specifically states: *"The State shall promote and ensure balanced participation by women and men in nominations for elected office and for management and decision-making bodies in the public domain, in justice administration, and in government oversight agencies."*

Article 272 of the Dominican Constitution specifies the use of referendum to approve specific aspects of a future constitutional reform, and establishes that *"When the reform concerns rights, fundamental guarantees and duties, territorial and municipal organisation, the status of nationality, citizenship and immigration, the currency regime, and reform procedures instituted in the Constitution, it will require ratification by a majority of citizens registered on the electoral roll through a referendum convened for that purpose by the Central Electoral Board, having been voted on and approved by the Reviewing National Assembly."*

These are significant steps forward that need to be expanded on and consolidated through citizens's actions; and the general statements contained in the Constitution are a recognition of the rights of citizen participation that can be upheld either through existing laws guaranteeing participation or through other mechanisms that may be created for such purposes.

More recently, Article 15 of Law 01-12 on the National Development Strategy provides that *"social participation will be promoted in the formulation, implementation, audit and evaluation of public policies, by creating institutional spaces and mechanisms that facilitate citizen co-responsibility, gender equality, access to information, transparency, accountability, social oversight, and fluent relations between State and society."*

1a.2 The Dominican Republic's climate change policies

The Dominican Republic ratified the Climate Convention (United Nations Convention Framework on Climate Change) in 1998 and the Kyoto Protocol and 2002; and it setup the National Climate Change Office (*Oficina Nacional de Cambio Climático* – ONCC) and the National Clean Development Mechanism Office (*Oficina Nacional de Mecanismo de Desarrollo Limpio* – ONDML) in the Vice Ministry of Environmental Management in 2004. In Decree 601-08, the government put the ONCC and ONDML under the National Council for Climate Change and the Clean Development Mechanism *(Consejo Nacional para el Cambio Climático y el Mecanismo de Desarrollo –CNCCMDL).*

The issue of climate change, and particularly the National REDD-plus Strategy, is mainstreamed at the state level in the Dominican Republic. Although the Ministry of the Environment is the direct authority on the subject, several other entities, such as the Ministry of Agriculture have recognized the relevance of climate change to their activities, and have set up climate change units. The National Council on Climate Change coordinates these mechanisms, while entities such as the ONCC, ONMDL and MEPyD are designing mechanisms or divisions to prepare the future national strategy. The competencies and roles of the key public and civil society institutions involved in the National REDD-plus Strategy in the Dominican Republic are described in the following paragraphs.

The National REDD-plus Strategy is seen as a planning tool for Regional Climate Change Strategies. Regional validation of the National Guidelines on Climate Change Mitigation is part of the decentralization process initiated in 2001; and its validation seeks to build capacity geared to boosting regional competitiveness and agreeing on the guidelines in a participatory manner.

1a.3 Formal institutions for preparing and implementing the National REDD-plus Strategy

Preparation of the National REDD-plus program has received strong support from the Commission for Environment and Development (*Comisión Centroamericana de Ambiente y Desarrollo* – CCAD), the environmental agency of the Central American Integration System (*Sistema de la Integración Centroamericana* – SICA), and from the German Academy for International Cooperation (GIZ) funded by the Government of the Federal Republic of Germany through the Federal Ministry for Economic Cooperation and Development (BMZ).

The program will last for six years ending October 2016. The German Government's contribution is for up to €12 million, to be shared between the eight SICA member countries, Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama and the Dominican Republic.

Nationally, the project supports intersectoral dialogue and the development of REDD-plus strategies and the implementation of offsetting instruments, which have been adapted to the Dominican Republic's own initiatives in preparing its the National REDD-plus Strategy.

At the regional level, the REDD-plus / CCAD / GIZ program supports processes between countries to develop positions and joint approaches to REDD-plus, and to keep the transfer of deforestation (leakage) within and between countries under control.

The framing conditions for effectively implementing offsetting mechanisms for reducing CO_2 emissions—arising from forest clearance and degradation—will be improved in CCAD member countries. The program will also identify and manage funds to support the implementation of offset payments and will aim to strengthen and supplement existing REDD-plus processes with a view to reducing the destruction of tropical forests.

Along with other SICA member countries, the Dominican Republic is developing the foundations and strategies for implementing the REDD-plus regime, to ensure that it responds to the regional priorities identified for meeting the challenge of climate change.

1a.4. Institutional arrangement for implementing the National REDD-plus Strategy

The purpose of the R-PP is to support the Dominican government, at both the ministerial and civil society levels, in developing a National REDD-plus Strategy. Law 64-00 makes the Ministry of the Environment and Natural Resources the lead agency in the field of environment and natural resources in the Dominican Republic, with a brief that includes the conservation and sustainable management of forests. The Ministry is therefore responsible for implementing the National REDD-plus Strategy in the Dominican Republic and for coordinating with the various public and private entities needed to ensure this mechanism is sucessfully implemented. Nonetheless, practical leadership is required nationally that is strong enough to make decisions enabling the various agencies responsible for implementing the ambitious steps towards a National REDD-plus Strategy to coalesce around a common idea. To facilitate the introduction of REDD-plus in the country, an institutional arrangement is needed that satisfies four criteria:

(i) The creation of a body with sufficient political decision-making authority, and the tools to facilitate interagency coordination and incorporation of the REDD-plus strategy in national, regional, and sectoral plans.

(ii) Institutional anchoring for the National REDD-plus Strategy to ensure that its plans and activities are supported by, and aligned with, the activities and programs of different government sectors and levels (national, regional, local).

(iii) A coordination mechanism for all public and private institutions that have key roles and functions in the design and subsequent implementation of the proposed strategy for the REDD-plus readiness phase.

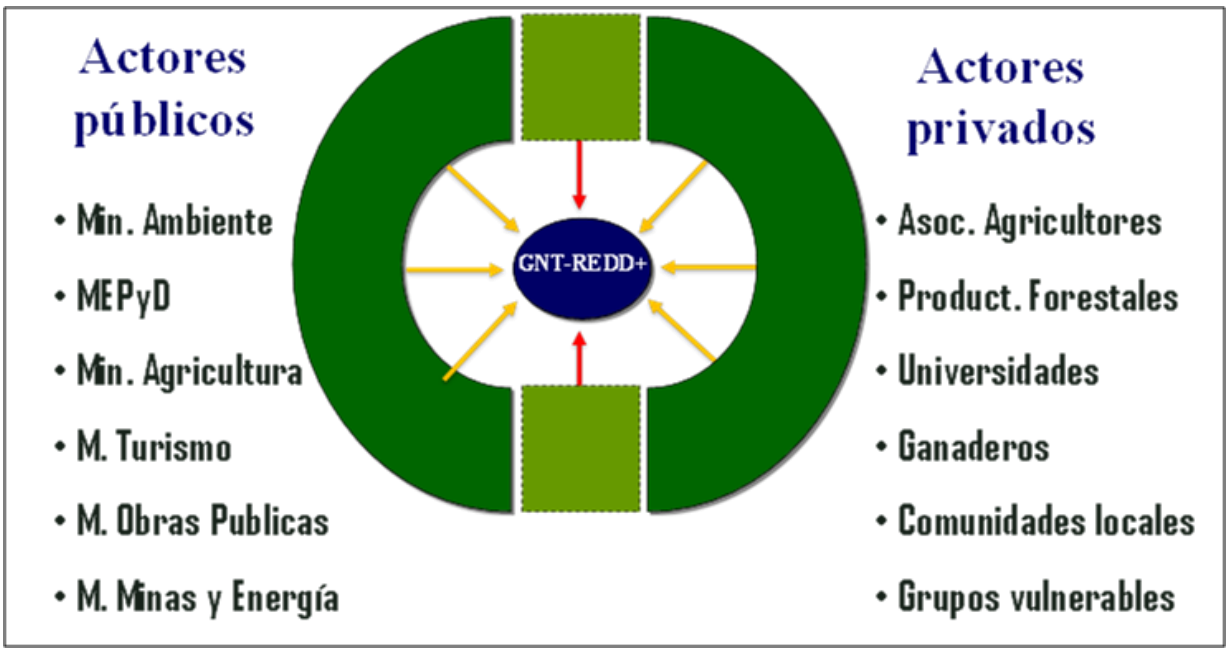
(iv) Effective coordination and efficient management of different funding sources.

1a.5 The Forests and REDD-plus coordination body (OCBR)

An effective forests management policy demands a high degree of functional coordination between the agencies involved—firstly in the public sector and secondly between entities in the non-public sector. Steps should therefore be taken to strengthen cross-sector ties and forest governance to promote policies that reduce deforestation and forest degradation (DFD), to make sure forests are taken into account in environmental and land-use policy at all levels. Strengthening these intersectoral mechanisms enhances the legitimacy of public policies, adapts them better to society's demands, and promotes solidarity, trust, and civic responsibility.

To strengthen forest governance in the Dominican Republic stakeholder participation needs to be expanded and interagency coordination capabilities improved to allow for a transparent and inclusive decision-making process.

Figure 1. Institutional arrangement for implementing the Regional REDD-plus Strategy



To prepare the political, legal and institutional framework for coordinated implementation of the REDD-plus Strategy, a Forests and REDD-plus Coordination Body (OCBR) will be created, as a facilitation mechanism that provides guidance and continuously coordinates the process, while supporting fulfillment of the proposed objectives and work plan monitoring.

The OCBR will coordinate its activities with the GNT-REDD and institutions that influence land use at all levels; and it will implement and/or coordinate the implementation of activities identified as priorities by the GNT-REDD.

In the process of creating the OCBR and while awaiting the definition of legal and operational arrangements, a Project Management Unit (PMU) is being set up, which from the outset of R-PP implementation will be serve as manager of the project and of the other projects co-financed in the readiness phase. These projects will fund OCBR operations after the first two years of the readiness phase. During the implementation phase, the OCBR will receive funding from the

World Bank (WB) through the Ministry of the Environment and Natural Resources; and, in the third phase of the National REDD-plus Strategy (payment by results), it is expected to be self-sufficient.

1a.6 Institutional anchoring of the National REDD-plus Strategy in the Dominican Republic

The fact that the Dominican Republic has passed legislation that recognizes and establishes mechanisms for participation in various spheres of public life is a significant achievement that could strengthen its democracy and expand opportunities to participate more fully in forestry policy processes nationwide.

This is evidenced by the following legal instruments: the Constitution of the Dominican Republic, promulgated on 26January 2010; Law 01-12, the National Development Strategy; Law 64-00 on Environment and Natural Resources; Law 176 on the National District and Municipalities; the Law on Free Access to Public Information; the Law Regulating and Promoting Nonprofit Associations; and another 14 local laws and several international treaties.

In particular, Article 15 of Law 01-12 on the National Development Strategy provides that *"Social participation will be promoted in the formulation, implementation, audit and evaluation of public policies, by creating institutional spaces and mechanisms that facilitate citizen co-responsibility, gender equality, access to information, transparency, accountability, social oversight, and fluent relations between state and society."*

Article 6 of Law 64-00 provides that *"the State shall guarantee participation by the country's communities and inhabitants in the conservation, management and sustainable use of natural resources and the environment, as well as access to accurate and timely information on their status and condition."* Article 18 of the same Law states that the Ministry of the Environment will *"promote the involvement of civil society and community organizations in plans, programs and projects aimed at conserving and enhancing the environment.*

To coordinate the articulating and decisive elements in national economic development and forest sector policies, respectively, steps will be taken to ensure that the REDD-plus Strategy is set in an institutional framework that allows for the different policies to be articulated at the national and regional levels. To this end, the body responsible for implementing the strategy

(the OCBR), will be institutionally anchored so as to ensure that coordination, even though it is formally attached to the Ministry of the Environment.

In order to ensure the anchoring of this OCBR, it should be created by Presidential Decree, under the auspices of the Ministry of the Environment and Natural Resources, and consist of an intersectoral and interagency board of directors. At least three public institutions and three institutions from civil society and the private sector should serve on that body. Initially it could be constituted as follows: one representative each from the Ministry of the Environment, the Ministry of Agriculture, and the Ministry of Economy, Planning and Development (MEPyD), a representative from the private sector, a civil society representative and a representative of vulnerable groups.

This would ensure that the OCBR's main strategic and operational plans are aligned with the policies of these sectors, jointly and on a coordinated basis, while taking into account the guidelines of the National Development Strategy and the National Climate Change Policy. The Coordinating Committee will ensure that there is full complementarity and no functional overlap between the OCBR and other institutions that have an important role to play in REDD-plus implementation in the Dominican Republic.

During the readiness process, technical capacity will be created in the ministries that are responsible for elements of the National REDD-plus Strategy. Counterpart positions will be created for the OCBR in each case, to ensure a genuine unity of technical coordination between these sectors. For the REDD-plus Strategy to be implemented at the regional level, the government at this level must have the necessary capacities, so ways need to be found to mobilize resources to strengthen technical and administrative capacities. The REDD forums that are being formed in the regions, as well as the Provincial Environmental and Natural Resource Councils, could promote and drive this process.

The Coordinating Committee, chaired by the Ministry of the Environment and Natural Resources, reports to an intersectoral board. Its members help coordinate REDD strategy implementation with general government policy at different levels. The OCBR will work both as a forum for resolving disputes between different sectoral interests on REDD-plus issues, and for ensuring optimal implementation of the strategy in the decentralization process.

1a.7 OCBR operating areas or divisions

This unit will be responsible for all the administrative work needed for the design and implementation of the REDD-plus readiness phase. Its main tasks in this regard are to:

(a) Maintain close communication with the GNT-REDD and other stakeholders in the design and implementation of the REDD-plus readiness phase in the Dominican Republic.

(b) Assist in the organization of, and provide logistical and administrative support as necessary for, the implementation of activities identified as priorities by the GNT-REDD with respect to the REDD-plus readiness phase in the Dominican Republic. This unit will have the following key tasks for the readiness phase:

(a) Receive, organize, and keep up to date the technical information regarding the process of designing and implementing the REDD-plus readiness phase in the Dominican Republic.

(b) Propose conceptual frameworks and methodological and technical procedures for the development of reference scenarios at the regional level and for the monitoring, verification, and reporting of REDD-plus activities.

(c) Propose criteria for the approval, endorsement, and registration of REDD-plus activities.

(d) Design and implement capacity-building programs.

The technical tasks involved in the design and implementation of the REDD-plus readiness phase in the Dominican Republic entail the following obligations:

(a) Coordinate the preparation of specialized technical material commissioned by the GNT-REDD-plus, particularly in regard to legal, economic, social, and monitoring issues, and verification and reporting of REDD-plus (including an analysis of current and projected deforestation and forest degradation).

(b) Coordinate with relevant institutions (CONIAF, IDIAF, IDBI, CFD, Ministry of Higher Education, Science and Technology; universities) in researching, developing, and validating productive alternatives to deforestation specific to the agents of deforestation in each region of the country.

(c) Maintain constant communication with the GNT-REDD and in general with all relevant stakeholders for the design and implementation of the REDD-plus readiness phase in the Dominican Republic; and

(d) Develop REDD-plus outreach materials, which will have informational, technical or awareness-raising aims, depending on the target audience.

It is necessary to raise awareness and strengthen communication and dialogue with different groups of society, concerning the value and contribution of forests; and capacity to enhance that communication needs to be strengthened. This area will therefore coordinate with the technical and administrative divisions and with the GNT-REDD-plus in:

(a) Coordinating the design and implementation of the reporting, participation, and consultation plan.

(b) Helping to organize activities to implement the plan to strengthen technical and scientific capabilities for REDD-plus implementation in the Dominican Republic;

(b) [sic]Preparing and disseminating all information and training materials;

(c) Designing the REDD-plus communication strategy, taking account of the different target groups (e.g. peasant federations, local businesses, etc.); and

(d) Designing and implementing the OCBR.

Pursuant to the Executive Power Law, an analysis will be made of the political, legal, and institutional feasibility of the different alternatives for hosting the OCBR. According to the options identified in the previous section, the institutional framework chosen will be suitable for housing the OCBR and integrating the National REDD-plus Strategy into national, regional and sector-level development plans.

1a.8 Arrangements for technical and strategic coordination between the State and civil society

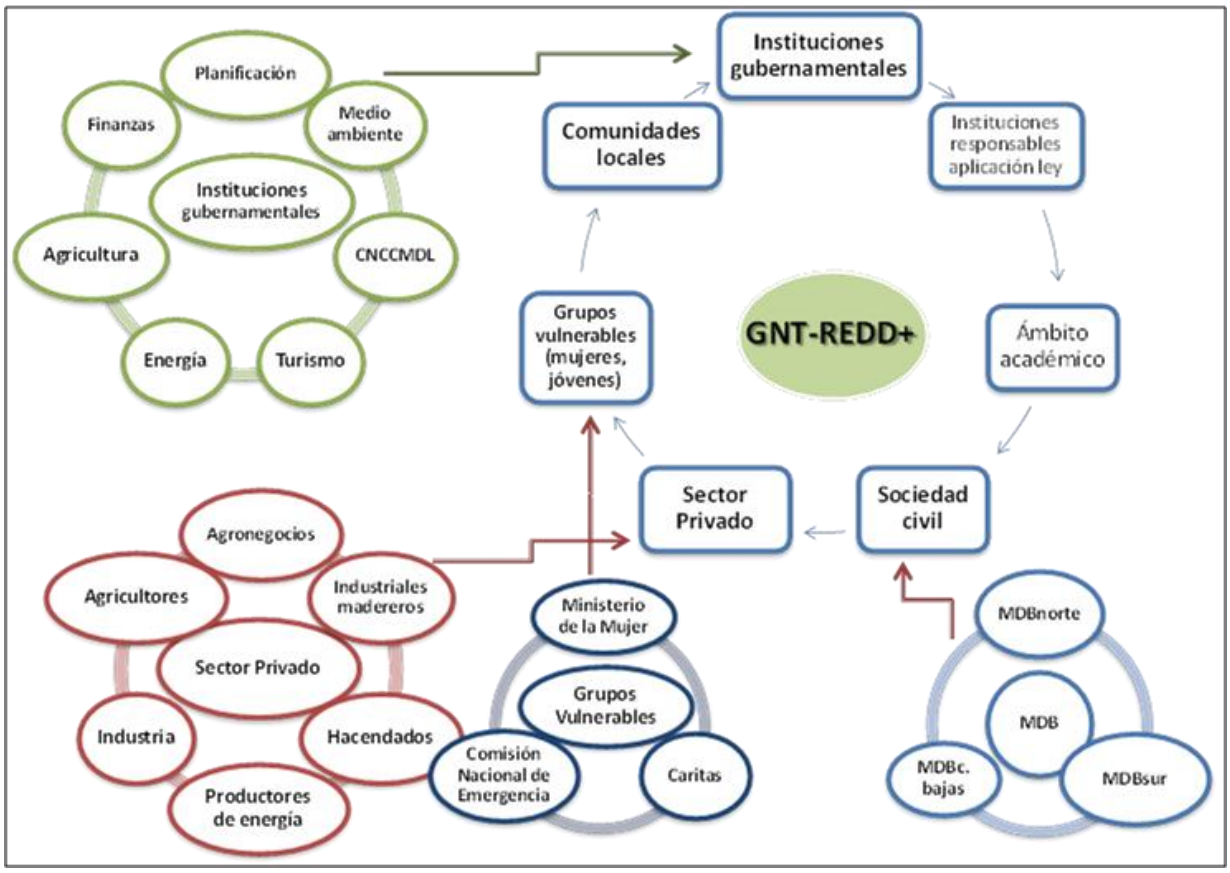
The foundation of technical coordination between the OCBR, as executor of the readiness process, and other government agencies and civil society are the platforms of the different stakeholders and their advisory role in the process. The National Climate Change Committee (CNCC) is tasked with steering the inclusion of climate change issues in national development

sectoral and regional strategies, plans and projects. The GNT-REDD (as part of the CNCC) is the main platform for technical coordination and consultation on the implementation OCBR activities. The REDD forums, as a space for dialogue and exchange of experiences, are, in turn, a GNT-REDD subsidiary body.

At the regional level, the regional REDD forums (already operating in some regions but at the design stage elsewhere) have a subsidiary role for the regional REDD strategies, and they affect the National Strategy through the national REDD forums. NGOs and local groups participate permanently in the different REDD forums and interact with the design and implementation of the National and the Regional Strategies in this way. These subnational forums should be used to encourage local communities to participate, supporting them in the development and implementation of local projects, and mobilizing their pro-forest "voice" when decisions on land use are being made. The GNT-REDD provides continuous coordination, and it advises, reviews and monitors OCBR strategies and activities and their coordination with different sectors and levels.

Three institutional arrangements ensure that recommendations and observations emanating from these platforms will be incorporated in the development and implementation of the strategy: (i) the NCCC, the GNT-REDD and REDD forums representation, the basis of which is a Presidential Decree; (ii) the Ministries involved in the GNT-REDD which also serve on the Board of the OCBR; (iii) the regional REDD forums that participate through the national REDD forums and the GNT-REDD in advising on the implementation of the National Strategy and are represented on the OCBR Board of Directors.

Figure 2. Key sectors in preparation of the Dominican Republic's R-PP.



1a.9 The National REDD-plus Strategy and Regional Forums

Currently three regional forums are operating as spaces created to discuss forestry issues and REDD-plus: a national one in Santo Domingo and and two in the north and south of the country. These forums serve as means of exchange, training and stakeholder consultation. The REDD-plus forums work in coordination with the Forest Dialogue Forum (FDF) and have been used to organise multiple events preparatory to the R-PP. Details of these structures can be be viewed at the website of the Center for Agricultural and Forestry Development (CEDAF): http://www.cedaf.org.do/REDD-plus/REDD-plus.htm and http://www.cedaf.org.do/REDD-plus/InformeGeneral.pdf, where the reports and results of the dissemination workshops held in those forums can also be consulted.

1a.10 Institutions and technical, scientific and social groups linked to the National REDD-plus Strategy in the Dominican Republic

The main institutions related to REDD-plus in the technical, scientific, and social domains are as follows:

The Ministry of the Environment and Natural Resources: This ministry is the national political and technical authority in charge of formulating national policies to be implemented for the planning, management and monitoring of forest resources, and the environment in general. It also coordinates with the regional authorities that implement those policies on the ground, from a systemic point of view, including forestry investments.

The Ministry of the Environment and Natural Resources as Climate Change Focal Point: The Ministry serves as the national environmental authority and climate change focal point. According to the provisions of the amended 2010 Constitution of the Republic, the State is required to prevent pollution, and to protect and maintain the environment. Law 64-00 is reinforced by Resolution 02-2002 which creates the National Climate Committee within it. The Ministry of the Environment is responsible for the country's position in negotiations held under this Convention.

The National Council on Climate Change and the Clean Development Mechanism (CNCCMDL): This council was created by Decree 601-08, which upgrades the institutional framework to mainstream climate change at the policy development level within the different organizations directly concerned with the problem. The Executive Branch coordinates the actions, plans, programs and policies through the Office of the Executive Vice President of the CNCCMDL and its administrative and operational offices (ONCC, ONMDL). Accordingly, the Ministry of the Environment and Natural Resources must coordinate joint actions with the CNCCMDL for the purpose of effectively combating the adverse effects of climate change in the National REDD-plus Strategy management.

The National Carbon Fund: Presidential Decree 601-08 also provides for the creation of the National Carbon Account, as a subaccount of the National Fund for the Environment and Natural Resources, pursuant to Article 71 of Law 64-00. This is responsible for managing, directing, and reporting on the use of this fund, which aims to support investments in this area.

National and Regional the National REDD-plus Strategy forums: These are mechanisms created in the REDD-plus context for the exchange of information, and stakeholder training,

consultation and participation; and for receiving comments and complaints. The REDD-plus forums work in coordination with the Forest Dialogue Forum (FDF) at the national and regional levels, as well as with the Provincial Environmental Councils. The forums may serve to define processes in relation to exchange, planning, application, reference scenarios, the Measurement, Reporting and Verification System (MRV), consideration and response to comments, observations, and the settlement of disputes between stakeholders, and any other element required by the National REDD-plus Strategy. The budget for components 1a, 1b, 1c, 2a and 2b includes items for strengthening, training, and the settlement of disputes among the National REDD-plus Strategy stakeholders.

Municipalities and Environmental Management Sector Planning Offices in the Dominican Republic: Article 18 of Law 64-00 describes all of the functions assigned by the Dominican State to the Ministry of the Environment, and provides that they must be applied using the collaboration and consultation mechanisms of the sector planning offices of the various government ministries and other provincial and municipal agencies.

Ministry of Economy, Planning and Development (MEPyD): This Ministry designs, proposes, implements, and evaluates the the country's economic and financial policy to achieve growth as the basic enabling condition for sustainable economic development. The main management tool used by this Ministry is the 2010-2030 END, which has four core programs. Article 10 of the strategy defines the fourth pillar of the national development program as "the sustainable management of the environment and adequate adaptation to climate change." The strategy defines four objectives to achieve this goal, namely: (a) to protect and sustainably exploit natural resources and improve environmental quality; (b) to manage water resources in a rational and sustainable manner; (c) to develop an effective national comprehensive risk management system, with active participation by the communities; and (d) to make progress in adapting to the effects and mitigating the causes of climate change.

Ministry of Public Works and Communications (MOPC): This government agency is in charge of planning, designing, building and adequately maintaining the public works needed for sustained economic growth in the Dominican Republic, ensuring quality and safe operation, and respecting the environment through modern management systems and technology. Despite its

importance and social relevance, this activity is not always compatible with forest conservation (see Component 2a).

Ministry of Agriculture (MAG): This agency is responsible for the long-term integrated rural development vision, sponsoring consultation and coordination with the other sectors of the economy, promoting the fundamental inter-relationships that agriculture needs to maintain with the possibilities for transformation of the productive structure, and enhancment of the rural environment, the sustainability of the model and human resource development.

National Energy Commission (CNE): The National Energy Commission (CNE) is the institution responsible for formulating state policy in the energy sector. It was created by the General Electricity Law (LGE) No.125-01 of July 26, 2001, which defines the activities of the following subsectors: electricity, oil, alternative energy sources, and rational energy use, i.e. the energy sector in general. This sector has important implications for forests, owing to the the traditional and unavaidable use of firewood and charcoal for fuel. The CNE is responsible for monitoring compliance with the Law on Incentives for the Development of Renewable Energies and their Special Regimes (Law No.57-07).

The Dominican Republic Export and Investment Center (CEI-RD): The mission of the Dominican Republic Export and Investment Center is to promote and develop Dominican exports and investment to boost the country's sustainable and competitive participation in international goods and services markets. Its relationship with the forests is indirect but very important for the policy in question.

Profit-making organisations, firms, and consultancies: These include forestry companies and others that intend to develop National REDD-plus Strategy projects (implementation), enterprises interested in investing in forest conservation businesses (investment), and firms seeking to play an advisory or intermediary role (consulting or brokerage).

Dominican Chamber of Forests (CFD): The CFD is a civil industry and business association that promotes private forestry activity in the country, by supporting productive forestry activity and changes in the use of poorly cultivated land areas, harnessing them for forestry development under sustainable management. The CFD was set up on 13 March 2000 with a national remit; and it encompasses all natural and legal persons engaging in activities in the

Dominican forestry sector. It is the organization that represents the interests of the private forestry sector in general, and provides extensive and multiple services in order to contribute to the forestry development that the Dominican Republic needs. Wide-ranging opportunities are recognized in the CFD for participating in major decisions on the forestry sector, since it is the top level body in the Dominican Republic's private-enterprise forestry sector.

Research institutions and universities: (IDIAF, CONIAF, CEDAF, the Autonomous University of Santo Domingo (UASD), the Technology Institute (INTEC) and others): These institutions work on on studies related to climate change, GHGs, forest inventory and management, among other issues, which contribute to the discussion and better understanding of the topic.

Forest Dialogue Forum (FDF): The FDF is a permanent body for consultation and coordination among forestry sector stakeholders for the design and implementation of actions, policy instruments and specific proposals in pursuit of sustainable forest management in the Dominican Republic. It seeks to achieve permanent consensus among public and private stakeholders and to develop practical proposals for sustainable forest management. It participates actively in the development and implementation of REDD-plus policy through a central forum and three regional entities that encompass producers, professionals and other forestry stakeholders in the Dominican Republic.

National Peasant Organizations: The Dominican Republic has no indigenous ethnic groups that have descended from populations that were inhabiting the country at the time of colonisation and who retain their own social, economic, cultural and political institutions. Nor does it have population groups whose social, cultural and economic conditions distinguish them from other sections of the national community, and whose status is regulated wholly or partly by their own customs, traditions or by special laws or regulations, as defined in ILO Convention 169 Concerning Indigenous and Tribal Peoples in Independent Countries, signed in 1989 in Geneva,Switzerland. Peasant organizations in are faithfully represented the National REDD-plus Strategy by multiple associations and capmesino federations linked to local community forest management.

The term "Local Communities" refers to communities which, without satisfying the ILO requirements for Indigenous and Tribal Peoples, have lived permanently in forest areas and

depend on them for their livelihood, without having special or separate organization in the cultural, social, political and legal domains.

Peasant federations base their institutions on the regular laws of the Dominican Republic governing access to natural resources, land titling, and commerce. Different peasant organizations are currently participating in the FDFs, in the National REDD-plus Strategy dynamics, and other actions in the Dominican forestry sector. Federations that have supported this process include the following:

• Zambrana Chacuey Farmers Federation

• Villa Trina Farmers Group Federation (FEGRUCA)

• Restaurción Forestry Producers Association (ASODEFOREST)

• Sierra Community Development Council, Inc. (COCODESI)

• Jarabacoa Forestry Producers Association (ASOPROFORJA)

• Foundation for the Development and Protection of Nizaíto River Basin, Paraíso (FUNDEPROCUNIPA)

• Advancement of Women of the South (PROMUS)

• San Ramon Forest Managers Association (SJ Matas)

• Dominican Forestry Cooperative (SJ Matas)

• Mama Tingo Independent Peasant Farmers Federation

• Padre Las Casas Peasant Association Board Coordination Unit

• Mama Tingo Independent Farmers Federation (FECAINMAT)

• United Associations of the Sierra (ASUDELASI)

• Association Board (JUNTOPA)

• Federation of Producers of the Southwest Dry Forest (FEPROBOSUR)

• Sustainable Forestry Development Association (ASODEFOS)

• *Hacia Progreso* [Towards Progress] Farmers Federation

• Ocoeña Women's Federation

1a.11 Mechanism for information exchange, reponse to and/or settlement of claims and complaints during the National REDD-plus Strategy readiness and implementation in the Dominican Republic

Everything proposed in this R-PP stems from the regional and national exchanges conducted between November 2011 and July 2012, with support from REDD-plus / CCAD / GIZ "Development of the REDD-plus Strategy Readiness Preparation Proposal". The report prepared as a result of this process testifies to participation and monitoring of these issues. Nonetheless, the aim is to create a suitable structure for such purposes, so it has been included among the immediate tasks of the process (see: http://www.cedaf.org.do/REDD-plus/InformeGeneral.pdf). Budget 1a includes the investment needed to define this mechanism as part of the REDD-plus management framework from the initial stages of the process.

1a.12 A preview of the National REDD-plus Strategy in the Dominican Republic

The Dominican Republic has forest ecosystems that are sustainably managed and integrated into national development, generating economic, social and environmental benefits, while strengthening the institutional framework and governance of the forestry sector and contributing to their inhabitants' human development.

The Dominican Republic has considered it important to exploit land use planning to improve ecosystem-based climate change adaptation, using the guidelines adopted by the National REDD-plus Strategy of the United Nations Framework Convention on Climate Change (UNFCCC).

Like other countries, it has decided to formally establish a set of policies that can be implemented, monitored and enforced at moderate cost and are attractive to carbon investors from the standpoint of fairness and justice.

The Dominican Republic and other countries are working with confidence in the National REDD-plus Strategy approach as a means to forest conservation and sustainable national development. It expects this experience to elicit increased research on forest policy and biodiversity, which are also included in the aims of national plans to mitigate and adapt to the adverse effects of climate change.

This proposal is an expression of national interest and commitment to develop interthe National REDD-plus Strategy standards and gain proper recognition for the implementation of a National Forestry Development Strategy aligned with REDD-plus.

1a.13 Risk Assessment for a National REDD-plus Strategy in the Dominican Republic

A Corruption Risk Assessment (ERC) is performed to identify corruption risks during the readiness and implementation phases of the National REDD-plus Strategy, and to identify measures to prevent it. The ERC will use the methodologies developed for such purposes by the FCPF, which includes work teams, documentary research, stakeholder identification, institutional context, surveys, group discussions, data analysis, validation of findings and recommendations. The results of the National REDD-plus Strategy ERC can be used as inputs for structuring the National Safeguards System. Risk of overestimating expectations and encouraging immigration

TABLE 1.-Budget of Sucomponent 1a. Arrangements for formalising GNT participation

Subcomponente 1a. Arreglos nacionales para Oficializar y Coordinar la actuación del (GNT)		**Miles de US$**				
Subcomponente 1a	**Subactividad**	**2013**	**2014**	**2015**	**2016**	**Total**
1a. Arreglos nacionales para Oficializar y Coordinar la actuación del Grupo Nacional de Trabajo (GNT) REDD	Escongencia oficial de integrantes del GNT mediante Decreto Presidensial	10	5	5	5	**25**
	Designacion de puntos focales y atención de quejas e intereses de grupos de actores claves	12	12	10	10	**44**
	Fortalecimiento del programa REDD+ de la Mesa del Diálogo sobre Bosques	10	10	10	10	**40**
	Análisis SESA para este componente	12	12	12	12	**48**
	Mecanismos para una coordinación efectiva de donantes y fondos para REDD+	15	15	15	15	**60**
	Desarrollo de una plataforma web para la ENREDD	10	5	5	5	**25**
	TOTAL	**69**	**59**	**57**	**57**	**242**
	Gobierno Dominicano	14	12	12	12	**50**
	FCPF (Banco Mundial)	38	32	31	31	**132**
	Programa Regional REDD/CCAD/GIZ	17	15	14	14	**61**

1b. INFORMATION SHARING AND EARLY DIALOGUE WITH KEY STAKEHOLDER GROUPS

Standard 1b the R-PP text needs to meet for this component:

Information Sharing and Early Dialogue with Key Stakeholder Groups:

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

Presentation

This component outlines the mechanisms proposed for the processes of dissemination and participation by the National REDD-plus Strategy stakeholders. The proposal has differentiated information and participation processes and processes of free and informed participation for consultation. Since its inception, the reporting process has been directed on a gender equity and equality basis to facilitate active participation by stakeholders in general from public institutions, the private sector, universities and research institutes, civil society organizations, and forest users.

The National REDD-plus Strategy Readiness Phase will put greater emphasis on identifying key REDD-plus stakeholders, their location, interests, alliances, and roles. It recognizes the need to

increase and broaden mechanisms for participation by peasant stakeholder groups and forest producers in the readiness phase, since the success of the strategy largely depends on them. Various matrices will be developed setting out the concerns of each sector and subsector.

The following have been proposed for inclusion among the studies of this subcomponent: (i) decide how the provincial environmental councils can play effective roles in supporting the preparation and implementation of the National REDD-plus Strategy; (ii) decide which intersectoral arrangements would be most suitable for effective implementation; and (iii) identify the best ways to respect gender issues in the definition and implementation of the National REDD-plus Strategy.

Subcomponent 1b requires strengthening in the preparatory phase of identifying forest stakeholders, the roles played by local governments in the National REDD-plus Strategy, the private sector and civil society, articulation of REDD-plus with regional development processes, the strengthening of dialogue and feedback processes, and the dissemination and sharing of experiences.

1b.1 Identification of important stakeholder groups

Various training and informational workshops were held in the Dominican Republic between 2010 and 2012 to determine and identify the most important stakeholder groups linked to forests and REDD-plus. Most of these event were held after the signing of an agreement between the Ministry of the Environment and Natural Resources with CCAD / GIZ in October 2010. Since then and through an internal agreement signed between the Ministry of the Environment and CEDAF, some 30 national and regional workshops have been held to raise awareness and deepen national interests on the issue. These events involved key stakeholders from various sectors, but still do not fully meet expectations and requirements in this regard.

While the workshops' development objectives and methods have been varied, in all cases they help inform participants of the opportunities and challenges that would arise from the possible implementation of the National REDD-plus Strategy in the Dominican Republic; and they have facilitated dialogue between key stakeholders in efforts to halt deforestation and forest degradation.

As a key outcome of this series of workshops, contributions and queries have been received from participants on:

- Direct and indirect drivers of deforestation and forest degradation;
- Environmental funding strategies (e.g. REDD-plus)—source, access and distribution;
- Strategies to control and reduce illegal logging;
- Strengthening of coordination between community organizations and representatives from different sectors of government; mechanisms to ensure fair and equitable sharing of the costs and benefits arising from the implementation of the National REDD-plus Strategy schemes;
- System for monitoring deforestation, innovations and forest carbon;
- Transparency guarantees, participation, equity and respect in the implementation of the mechanism, among other issues;
- Lack of supervision and monitoring of current management plans.

The contributions and queries arising from these workshops serve as important inputs for the preparation of this document and for the REDD-plus promotion work to be undertaken by the Dominican Government under UNFCCC aupsices. Nonetheless, we intend to continue broadening and intensfying participation by stakeholder groups on this issue.

1b.2 The gender aspect in the Dominican Republic

The Dominican Constitution (Amended in 2010) clearly and precisely states its equality principles, stating that "All people are born free and equal before the law; receive the same treatment and protection from institutions, authorities and others; and enjoy the same rights, freedoms and opportunities without any discrimination on the grounds of gender, color, age, disability, nationality, family ties, language, religion, politics or philosophy, social or personal status." To highlight the gender aspect,it states that "The Republic condemns all privilege and status that tends to undermine equality among Dominican people, among whom there should be no differences other than those resulting from their talents or virtues." Paragraph 2 states further that "As women and men are equal before the law, any act that has the purpose or effect of impairing or nullifying the recognition, enjoyment or exercise on an equal basis of the

fundamental rights of women and men is prohibited; so measures will be adopted as necessaryto eradicate gender inequalities and discrimination."

1b.3 The gender aspect of REDD-plus in the Dominican Republic

Gender equality mandates are mainstreamed throughout national policy, since there is a country commitment to take actions in support of Dominican women in development processes; and this obligation is further stressed in areas related to natural resources and environmental protection.

The gender perspective is being applied in all similar programs and challenges being coordinated by the Ministry of the Environment and Natural Resources. This is exemplified by the existence of the Equity, Gender and Development Office, the Gender Focal Team in all of the country's provincial directorates; awareness-raising seminars held on the rights of female state employees nationwide; training plans for female foremen who direct the reforestation fronts of the Quisqueya Verde National Plan; the strategy for Gender Mainstreaming in Environmental Management; the existence of a Gender Awareness Guide for Natural Resource Management; and the existence of Gender and Climate Change forums around the country, among many others.

These commitments require close monitoring and strengthening during the preparation and execution of the National REDD-plus Strategy, for which actions will be considered to strengthen the participation of female forest stakeholders and promote a balance between men and women in this mechanism, more by conviction than by mandate. This entails private consultations, training and the development of special skills for women, while ensuring greater access to information and a fair distribution of the benefits of REDD-plus, which will be assessed through gender audits.

1b.4 Forest dependent communities

The group of stakeholders involved in REDD-plus in the Dominican Republic consists of more than 20 public and private and peasant institutions with links to forests. The REDD-plus forums were coordinated by CEDAF under an agreement with the Ministry of the Environment, and there is authorization to submit proposals to the REDD-plus -CCAD/GIZ program and to participate in any discussions that occur within it. The proposals are evaluated and submitted for consideration by the REDD-plus National Working Group (GNT-REDD-plus). Participation by

members of the REDD-plus forums within the GNT-REDD-plus is expected to maintain the representativeness of the different entities in the group. Community organizations are important participants in the REDD-plus forums at the national and regional levels.

The REDD-plus forums in the the Dominican Republic act as a major promoter of the National REDD-plus Strategy in the country; and, thanks to their activities, consultations in forum discussions have begun at the regional level (e.g. North-Northwest, Southwest, Northeast and Central Forum of Santo Domingo), some of which have been recognized as tools for of high social and professional value for formulating the strategies and other development policies of the forestry and environment sector. These civil society initiatives organized and endorsed by the Central FDF are an important mechanism for ensuring the inclusion of all stakeholders in the National REDD-plus Strategy process and in other sector dynamics.

1b.5 National government

Government involvement has aimed to ensure the active participation of civil society sectors in the development of the R-PP. During the design, the main thrust of participation entailed explaining the various aspects of climate change and how it affects forests, as well as REDD-plus principles and the opportunities and challenges for the Dominican Republic, to large sections of society. The goal of this process has been to disseminate the proposal, make its development fully transparent, and receive recommendations from the different stakeholders. During execution of the R-PP, the dissemination and consultation process will be designed so as to ensure full participation, the inclusion of civil society priorities in all elements of the National REDD-plus Strategy, and formal endorsement by several organized civil society groups. The participation strategy will be designed in conjunction with representatives of relevant public and private stakeholders.

In recent years, the Dominican Republic has gained reasonable experience in the development of national strategies and policies related to climate change and the environment, based on pluralistic, open, and participatory processes. Law No. 1-12 on the National Development Strategy (2012), refers in its fourth pillar to: “A society with a sustainable production and consumption culture, which equitably and effectively manages the risks and protection of the environment and natural resources and promotes adequate adaptation to climate change...” Other instruments include the formulation of the National Policy on Climate Change in 2012,

which sought to mainstream the Climate Change project in the END (2012); the National Public Sector Multiyear Plan (2011-2014), the Draft Forestry Law (2012); the Water Law (2011); the National Climate Change Strategy (2003); the Quisqueya Verde National Reforestation Plan (2005), and the update of the National Climate Change Strategy (2011). All of these, together with lessons learned, demonstrate the need to review mechanisms for free, prior, and informed consent, to make sure disadvantaged communities are effectively included in the decision making processes. In this regard, community organizations and business groups increasingly indicate their agreement with and confidence in the drafting and promulgation of the development laws and policies issued by the Central Government and the National Congress.

1b.6 Private Sector

In recent years, the Dominican Republic has gained huge experience in the development of national strategies and policies related to climate change and the environment, based on pluralistic, open, and participatory processes. Law No. 1-12 on the National Development Strategy (2012), refers in its fourth pillar to: "A society with a sustainable production and consumption culture, which equitably and effectively manages the risks and protection of the environment and natural resources and promotes adequate adaptation to climate change..." Other instruments include the formulation of the National Policy on Climate Change in 2012, which sought to mainstream the Climate Change project in the END (2012); the National Public Sector Multiyear Plan (2011-2014), the Draft Forestry Law (2012); the Water Law (2011); the National Climate Change Strategy (2003); the Quisqueya Verde National Reforestation Plan (2005), and the update of the National Climate Change Strategy (2011). All of these, together with lessons learned, demonstrate the need to review mechanisms for free, prior and informed consent, to make sure disadvantaged communities are effectively included in the decision making processes. In this regard, community organizations and business groups increasingly indicate their agreement with and confidence in the drafting and promulgation of the development laws and policies issued by the Central Government and the National Congress.

It is important to acknowledge the leadership role that CEDAF has played in the participatory process among rural populations and government entities; since, in conjunction with the Ministry of the Environment and the FDF, it has implemented the national dialogue for the preparation of the National REDD-plus Strategy. To date, this has had has four continuous

months of action with participation by about 150 representatives from grassroots organizations and farmers, professional associations, business, academia, research, local government, and other sectors considered, to ensure that the formulation of the National REDD-plus Strategy readiness phase includes and respects the opinions and interests of every aspect of the causes of degradation and loss of forests in the Dominican Republic.

1b.7 Civil Society

The REDD-plus-CCAD -GIZ program has been supporting the Dominican Republic with a variety of national, regional and sector-level projects, to ensure civil society participation in discussions on climate change and preparation of the REDD-plus Strategy. The program will improve the framework conditions and strengthen the capacity of national stakeholders to facilitate actions to help halt the destruction of forests and ensure sustainable implementation of the REDD-plus mechanism. Currently, the program is laying the foudndations for efficient implementation of the Dominican Republic's National REDD-plus Strategy, ensuring effective participation by civil society in the process. Commitments need to be better defined to strengthen capacities.

The National REDD-plus Strategy readiness and implementation process, which includes the preparation of the R-PP, requires mechanisms for continuous participation by all stakeholders. These will take special account of peasant groups and the relationship of interdependence they maintain with the forest in which they live, in order to preserve their livelihoods and ways of life, including the traditional use of forest lands and crop rotation.

It is important to acknowledge the leadership role that CEDAF has played in the participatory process among rural populations and government entities, since, in conjunction with the Ministry of the Environment and the FDF, it has implemented the national dialogue for the preparation of the National REDD-plus Strategy, securing widespread participation by about 150 representatives from grassroots organizations and farmers, professional associations, business, academia, research, local government, and other sectors considered to ensure that the formulation of the National REDD-plus Strategy readiness phase includes and respects the opinions and interests of every aspect of the causes of degradation and loss of forests in the Dominican Republic.

The information and participation process has thus far targeted local communities with a view to achieving free and informed prior consultation on the possible implementation of National REDD-plus Strategy activities on land belonging to peasant communities and groupings.

TABLE 2.-Budget of Subcomponent 1b. Information Exchange and Dialogue with Stakeholder Groups

Subcomponente 1b. Intercambio de Información y Diálogo con Grupos Interesados		Miles de US$				
Subcomponente 1b	Subactividad	2013	2014	2015	2016	Total
1b. Intercambio de información y diálogo inicial con los principales grupos y partes interesadas	Fortalecimiento de los consejos ambientales como soportes de la implementación de REDD+	10	10	10	10	**40**
	Arreglos intersectoriales convenientes para la implementación de una ENREDD efectiva	10	10	10	10	**40**
	Análisis y auditorías del aspecto de género en la definición y aplicación de la estrategia REDD+	10	10	10	10	**40**
	TOTAL	**30**	**30**	**30**	**30**	**120**
	Gobierno Dominicano	6	6	6	6	**25**
	FCPF (Banco Mundial)	16	16	16	16	**65**
	Programa Regional REDD/CCAD/GIZ	8	8	8	8	**30**

1c. CONSULTATION AND PARTICIPATION PROCESS

Standard 1c the R-PP text needs to meet for this component:

Consultation and Participation Process:

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

Presentation

The success of the National REDD-plus Strategy interventions depends mainly on active stakeholder participation. This component aims to ensure that the national agency or organization responsible for leading the National REDD-plus Strategy process holds consultations with stakeholders and ensures adequate involvement and consultation. The more than ten preparatory workshops held during preparation of the R-PP sought to be as inclusive and transparent as possible, diseminating the National REDD-plus Strategy approaches and concepts throughout the country.

This activity will never be completed, because every day new stakeholder groups emerge; so the topic has been singled out by the Dominican Republic for exansion and strengthening in the National REDD-plus Strategy readiness phase.

Four aspects are recognized as weak and earkmarked for immediate attention in the readiness phase:

1. Improve the REDD-plus "stakeholder map", upgrade group profiles, and deepen and exoand the gender aspect as an element of possible impacts in the National REDD-plus Strategy.

2. Create effective mechanisms for the monitoring and evaluation of the readiness phase with respect to the Consultation Plan;

3. Design and permanently implement better and wider-ranging disemination mechanisms during the National REDD-plus Strategy readiness phase; and

4. Improve and strengthen dispute settlement mechanisms in the National REDD-plus Strategy.

1c.1 The consultation and participation process in the National REDD-plus Strategy readiness phase

During the development of the R-PP, the Ministry of the Environment scheduled seven informational workshops to introduce the National REDD-plus Strategy mechanism. These workshops were held as a prelude to designing the consultation and participation plan. The results of the first four workshops can be found on the CEDAF website at http://www.cedaf.org.do/REDD-plus/InformeGeneral.pdf.

Based on the results of informationalworkshops held thus far, together with working meetings and exchange of ideas with key stakeholders, especially representatives of local communities and other stakeholders of the REDD-plus forums, it is proposed that the consultation process in this preparatory phase should continue targeting the following issues:

- The relationship of local communities with forest land and their specific rights;
- Fostering genuine societal ownership of the National REDD-plus Strategy;
- Enhancing access to information and consultation processes;
- Mainstreaming the role of women in the management and use of natural resources;
- Including specific ways to address the role of women in the; [sic]
- Highlighting the application of the National REDD-plus Strategy principles as a *sine qua non* condition;

- Disseminating information more widely;
- Seeking a genuine understanding of peasant society as a prerequisite to the signing of agreements;
- Strengthening the criterion of good faith in the process;
- Respecting peasant customs in different regions of the Dominican Republic;
- Ensuring that comments, suggestions and complaints made by the communities and peasant groups are considered, answered and incorporated into the National REDD-plus Strategy process.

In that perspective the following recommendations have been considered for the design of the National REDD-plus Strategy:

(a) Consider the forests in terms of their overall ecosystemic services (water, biodiversity, soils, climate, spirituality) and not just carbon.

(b) Avoid converting natural forests into "forestry or agroforestry plantations."

(c) Solve issues relating to property rights in forest lands.

(d) Ensure land management and prevent forests being controlled by third parties (financiers of the National REDD-plus Strategy contracts).

(e) Include the integrated management of low-intensity natural resources: forestry, hydrobiological, agroforestry.

(f) Ensure that potential the National REDD-plus Strategy contracts are fair and consistent with the socioeconomic and cultural conditions of rural communities in the Dominican Republic.

(g) National REDD-plus Strategy contracts that have tight deadlines and are periodically adjustable.

(h) Respect for autonomy in the case of the National REDD-plus Strategy initiatives in protected areas under community, private, or state management.

(i) Training, information, and dissemination of ecosystemic services and the National REDD-plus Strategy; and

(j) Social inclusion and nondiscrimination, to prevent funds for peasant groups being reassigned to undeserving third parties, under alternative local proposals for the National REDD-plus Strategy.

1c.2 Continuity of the information, participation, and consultation plan

This phase will include both desk-based and field activities; and this component presents the preliminary findings from the workshops that have been held thus far. The information workshops taking place at all levels are expected to be continued during this phase, taking into account the specifics of each stakeholder.

The information gathered during the workshops will be systemized, taking into account the origin of the stakeholder group. Table 1 lists the topics on which more information is expected to be compiled, by topics and stakeholders.

Table 3. Topics of interest for consultation during preparation of the National REDD-plus Strategy

TOPIC	KEY STAKEHOLDERS
• Direct and indirect drivers of deforestation and proposals for dealing with the problem. • Strategy for the National REDD-plus Strategy readiness phase. • Institutional and legal framework needed for successful implementation of the National REDD-plus Strategy. • Monitoring, reporting, and verification system and the institutional framework needed to implement it • Economic implications of National REDD-plus Strategy implementation • SESA	• Central government • Local governments. • Local and peasant communities • Forest users. • Private sector • Organised civil society • Academic institutions.

• Appropriate methodologies and technologies to develop reference scenarios for deforestation and forest degradation. • Multipurpose National Forest inventory and its scope.	• Sectors involved in activities related directly with the forest. • Central government • Local governments (municipalities) • Organised civil society • Academic institutions
• Positive and negative environmental and social impacts of the strategy proposal developed. • Distribution of the benefits and costs of implementing the National REDD-plus Strategy. • Technical, scientific, institutional, and negotiation capacity strengthening needs.	• Sectors involved in activities related directly with the forest. • Central government • Local governments (municipalities) • Local and peasant communities • Other forest users • Private sector • Organised civil society • Academic institutions

In this phase, the plan to execute the information, training, and consultation processes will be designed, identifying the geographical spaces and appropriate media to be used to reach a larger range of population and key stakeholders. In the case of rural communities, coordination will be maintained with the FDF, the CFD and other local organizations to obtain accurate information to refine the logistics and costs of the plan. Greater attention will be paid to the communities mostly closely related to forests and other organizations linked indirectly to the process. Training activities will be held to enable local communities and other civil society stakeholders to gain a greater understanding of the REDD-plus implementation process. Stakeholder understanding and capabilities will be strengthened in relation to their rights and obligations to participate in environmental decision-making (REDD-plus).

1c.3 The role of the regional forums in the consultations

For civil society in general, the process will be implemented through the National REDD-plus Strategy forums (both national and regional), which will be strengthened through the FDF; and

also through other relevant existing platforms and through direct coordination with key organizations. In the case of rural communities, steps will be taken to respect the principles of inclusiveness and transparency, promote the sustainability of country-wide commitments assumed in the National REDD-plus Strategy, lay foundations for wide-ranging participation in the subsequent design and implementation of development interventions, and respect the structures of representative organizations.

During execution of the plan, the following processes will be undertaken or maintained for dissemination and information with local communities:

Information process: Information processes will be undertaken for representatives and members of local organizations. An assessment will be made of the training needs of the entities that will implement future National REDD-plus Strategy projects; their suggestions and concerns in relation to the National REDD-plus Strategy will be compiled; and local promoters will be identified to participate in the training activities.

Training Process: Training events will be held, taking account of stakeholder differences and requirements. In the case of rural communities, training will prioritise issues identified during the information and data collection process, in order to prepare them for contributing to the subsequent participation and consultation process.

Participation Process: Training and consultation will be provided gradually and in parallel to the information process. Participation will not be restricted to National REDD-plus strategies and projects or to the formulation of evaluation and control mechanisms. The REDD-plus forums will therefore seek ways for civil society and local communities to participate in defining reference scenarios (Component 3) and the MRV (Component 4). For the strategic evaluation, civil society will be involved from the outset in the design of the SESA, and a special space will be found for this topic in the REDD-plus forums.

Consultation process: The consultation process will have the following steps: (1) Planning and dissemination of the consultation; (2) Pilot consultation to evaluate and adjust the methodology; (3) Application of the consultation nationally; (4) Dissemination of results; and (5) Feedback.

Design of information, training, participation and consultation plans (Phase II-Planning)

During this phase, the Execution Plan to be followed during the implementation of the National REDD-plus Strategy, and in identifying the geographic areas in which it is implemented, will be designed. Informational workshops on the National REDD-plus Strategy will be convened through the media. With respect to local communities, coordination will be maintained with the REDD-plus forums and representatives of peasant organisations and business associations.

Consistent with the implementation approach proposed by the Dominican Republic, guidelines will be prepared during this phase to enable institutions to promote the implementation of the National REDD-plus Strategy at the national and subnational (regional, local) levels, following the National REDD-plus Strategy information, training, participation and consultation processes. This phase includes:

- Preparation of the plan for implementing the information, participation, and consultation process
- Identification of appropriate geographical areas and priorities
- Use of the media to convene and disseminate information related to the National REDD-plus Strategy
- Coordination meetings with unaffiliated national organizations and communities

The consultation activities will be held at the regional and national levels and will follow the guidelines proposed by the National Government in coordination with REDD-plus forums: This phase will continue to act in the following areas:

- Information process: informational workshops on basic aspects of climate change and the National REDD-plus Strategy; these workshops will discuss the potential impacts (positive and negative) of the National REDD-plus Strategy, its advantages and disadvantages, and the factors to be taken into account in implementing the National REDD-plus Strategy in the Dominican Republic.
- Training process: at this stage, specific workshops will be held for the different types of target public
- Participation process, occurring gradually and parallel to the information, training, and consultation process on the Plan’s four intervention levels.

- Consultation process: this will target local communities, respecting the local institutional framework and its organizational levels, taking account of the specifics of each region.
- Evaluation: this will assess the results of the consultation process to identify populations wishing to participate in the National REDD-plus Strategy, as well as those who choose not to participate. This should be clearly linked the SESA (Component 2d).
- Feedback: the results of the consultation will be disseminated among peasant groups, and an evaluation will be made of how and to what extent its recommendations are incorporated.

TABLE 4.-Budget of Subcomponent 1c. Arrangements for managing the consultation plan

Subcomponente 1c. Arreglos nacionales para el Manejo de la Preparación del Plan de Consulta		Miles de US$				
Subcomponente 1c	**Subactividad**	**2013**	**2014**	**2015**	**2016**	**Total**
1c. Arreglos nacionales para el manejo de la preparación y ejecución del Plan de Consulta	Identificar el "mapa de actores" para REDD y hacer mejoras a los perfiles grupales y al aspecto de género	20	15	5	5	**45**
	Monitoreo y Evaluación (Preparación) del Plan de Consulta	10	15	15	10	**50**
	Diseño e implementación de los mecanismos de socialización permanente de los avances de la ENREDD	10	10	10	10	**40**
	Mecanismo para la resolución de conflictos en la ENDREDD	50	50	50	40	**190**
	TOTAL	**90**	**90**	**80**	**65**	**325**
	Gobierno Dominicano	20	20	18	14	**72**
	FCPF (Banco Mundial)	48	48	43	35	**174**
	Programa Regional REDD/CCAD/GIZ	22	22	20	16	**80**

COMPONENT 2. PREPARE THE NATIONAL REDD-PLUS STRATEGY READINESS STRATEGY

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

Standard 2a the R-PP text needs to meet for this component:

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

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

Presentation

The historical record shows that the Island of Hispaniola was a paradise of natural wealth at the start of the colonisation period. Whereas the Spanish colonistas encountered found more than 85% forest cover, in 1968 the Dominican Republic started to import forest products at a level of US$110 million (today the figure exceeds US$300 million).

National development policies have favored the development of crop farming and livestock breeding at the expense of forests; and these policies are held responsible for 60% of the forest loss to date. Four decisive factors have a similar influence on stakeholder behaviour throughout national territory: (1) the opportunity costs; (2) the insecurity of rights over the use of forest resources; (3) “perverse” subsidies; and (4) the lack of choice and government controls.

This reality raises the need, as part of this process, to identify strategic options for addressing these issues precisely and directly, at both the national and regional levels. Illegal logging has been little studied in the Dominican Republic, so it has not yet been officially recognized among the drivers of deforestation and forest degradation. Nonetheless it may be more important than currently perceived, for which reason it is a task for this project. The findings will form the references and baseline on this issue. The study should be conducted using standardized methods with high levels of participation by relevant National REDD-plus Strategy stakeholders.

Uncertainty over whether or not the country is a net GHG sink is an important issue to be resolved in this phase. A forest inventory with an REDD-plus approach will be performed in 2014 sponsored by the REDD-plus / CCAD / GIZ program. This important National REDD-plus Strategy resource should be suported by the identification of the policies or drivers of the changes encountered, and the variables that contribute most to them, which will generate lessons learned that could serve as input for the design of the National REDD-plus Strategy. It will provide the first opportunity to robustly provide the country with data and statistics on the gross recovery of forest cover in the Dominican Republic and on the ex ante National REDD-plus Strategy carbon stock. The results will make it possible to generate historical national and regional maps of deforestation and the recovery of forest biomass.

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

The Dominican Republic is located in the eastern part of the second largest Caribbean island, Hispaniola, which it shares with Haiti. Its geographical location is between the coordinates 17°86´-19°56´north in latitude and 68°19´ -72°31´west in longitude; and it occupies an area of 48,198 km^2, including adjacent islands, which represent two thirds of the island. It has 1,575 km of coastline, of which 166 km consists of coral reefs; and it shares a 388 km border with Haiti.

The predominantly subtropical climate is influenced by the trade winds, producing heavy rainfall, varying between 400 mm and 3,000 mm annually. The average temperature is between

17.7° C (in areas of the central cordillera) and 27.7° C in areas at sea level. In high altitude zones, temperatures fall below 0° C in winter. The rainy season spans May to November.

The Dominican Republic has some 17 water producing areas located in the main mountain ranges, with the Central Cordillera containing the largest number. It also has roughly 118 watersheds, containing the longest and fastest flowing rivers in the Caribbean area: the Yaque del Norte encompassing an area of 7,050 km^2; Yaque del Sur covering 5,340 km^2; the Yuna River occupying 5,070 km^2, and other major rivers such as the Camu, Artibonite, and Nizao.

Of all the Caribbean islands, the Dominican Republic has the largest number of lakes and lagoons, such as Lake Enriquillo with an area of 265 km^2, the largest water-covered area in the Central Caribbean and located about 40 meters below sea level.

In terms of its social and economic features, the Dominican Republic has a population of 9.2 million, of whom 68% live in urban areas, with an average annual growth of 1.6% and an unemployment rate of 17%. Its literacy rate stands at 85%, and it has enrolment rates of 59% at the secondary school level and 11% at higher education and university level.

In 2011, the country's current GDP totalled US$93,230 million, which represents US$5,282 per capita [sic: US$93.23MM / 9.2MM population ???]. Of its total population, 42% are poor, and 8% are living below the extreme poverty line, while the remainder are classified as lower-middle and middle-income, with less than 10% in the upper-middle income bracket. Average per capita income among the richest 20% is US$10,500, compared to US$775 among the poorest 20%.

The Dominican Republic has 1,668 kilometers of coastline, including the adjacent islands. In terms of ecosystems there are 41 locations with rocky shores, 141coastal lagoons, 19 estuaries, 17 reef zones, over 20 areas with mangrove ecosystems, 192 sandy beaches and 25 dune areas.

The country now has a new classification for the different Dominican ecosystems, based on the structure and composition of vegetation units. This classification is more accurate and is based on available data from plants and species collected over a period of more than 25 years. The classification describes a total of seven major ecosystems, which in turn consist of vegetation units or associations of similar composition according to predominant species and soil conditions.

In 2003 the Dominican Republic's forested area totalled 15,852 km^2 (32.9% of the country), whereas today it has 19,128 km^2 of forest cover, encompassing 39.7% of its territory. In 2003 agricultural areas occupied 1,851,188.67 hectares or 38% of the entire country.

The diversity of flora in the Dominican Republic involves a total of 6,000 species, according to the latest records of vascular and nonvascular species, including 2,050 endemics (34% of the country's total species).

In terms of diversity of fauna, a total of 9,682 vertebrate and invertebrate species, both terrestrial and marine, have been reported to date in the Dominican Republic, of which 2,830 (29%) are endemic.

The National Protected Areas System (SINAP) of the Dominican Republic, was created by the Sector Law on Protected Areas (Law 202-04), and consists of a total of 123 protected areas, grouped into six management categories, covering a total land and sea area of 25,472 km^2. Of this, the country has 13,225.96 km^2 of territorial waters area under protection and terrestrial protected areas covering an area of 12,033 km^2, or 25% of the entire country.

The Dominican Republic has consolidated a number of legal instruments and policies on environmental issues. In 2000, Law 64-00 created the Ministry of the Environment and Natural Resources, which is responsible for formulating the National Forest Policy and ensuring its consistency with the country's environment and natural resource policy. For this purpose, the ministry has two Vice-Ministers who deal directly with forestry management and REDD-plus, in the areas of Forestry Resources and Protected Areas and Biodiversity, respectively. The institutional structure of the Ministry of the Environment and Natural Resources also has other units directly associated with REDD-plus: the Climate Change Department, the Program for Payment and Compensation for Environmental Services, the Environmental Information and Natural Resources Department, and the Planning and Development Department. Also the CNCMMDL and MEPyD developed the National Policy on Climate Change, extending pillar 4 of the END, which supports the five binational GHG emissions reduction projects being implemented by the Ministry of the Environment,.

Law 64-00 also creates the National Fund for the Environment and Natural Resources to develop and finance programs and projects on protection, conservation, research, education,

restoration and sustainable use. The fund has its own legal status, independent capital, and autonomous management, with jurisdiction over the entire national territory. It started operating in early 2010.

2a.1 Characterization of land use

According to the Food and Agriculture Organization of the United Nations (FAO) (1973), cited by Dotzauer (1993), in the early twentieth century the Dominican Republic still had about 85% of its original forest cover; and between1909 and 1937 about 12% of the country was deforested. Deforestation gathered pace thereafter and lasted until 1967, during which time 50% of the area remaining in 1937 was cleared.

In 1968, the Organization of American States (OAS) measured the national forest coverage area, finding that there was an area of 557,000 hectares with commercial trees, covering 11.5% of the national territory.

In the period 1972-1986 Fornier and Russell (1987) reported a loss of broadleaf and pine forests of 14,100 hectares per year, with deforested areas usually being converted to crop farming and livestock production. In that period, grazing areas increased by 42% and crop land by 34%, while the forests shrank by 32%, as shown in Table 5.

TABLE 5. Land-use change in the western region, 1972- 1986

Categories	Area (km²)			72 / 73 / 79	△%	79 / 85 – 86	% △	72 / 73 - 85 / 86	△ %
	72/73	1979	85/86	Km²		Km²		km²	
Cropping	2,686	3,377	3,605	+691	+26%	+228	+7%	+919	+34%
Grazing	6,760	4,136	6,622	+376	+6%	+2,486	+35%	+2,862	+42%
Scrubland	7,229	6,786	5,627	-443	-6%	-1,159	-17%	-1,602	-22%
Forest	6,658	5,914	4,543	-744	-11%	-1,371	-23%	-2,115	-32%

Source: Fournier and Russell, 1987.

Geilfus (2002) claims that the rate of deforestation slackened as from the 1990s, owing to the inaccessibility of many of the remaining forest areas, the inclusion of other protected areas, and the rapid rural exodus in many regions. DECCC (2011) estimates a deforestation rate of 6,200 ha/year in 2010, but notes high levels of uncertainty in information on forest cover and its

evolution, owing to inconsistent land use and land use changes, and the lack of a carbon inventory for the country.

Estimates of forest area in the Dominican Republic from 1985 to the present have reported coverage levels of 22% or 10,770 km² in 1990 (FAO, 1995) and 32.5% or 15,750 km² in 1995 (FAO, 1997). According to the assessment of land cover and land use conducted in 1998 by DIRENA, using Landsat TM5 photo-interpretation, forests covered 13,266 km² or 27.5% of the country, comprising the tracts occupied by broadleaf, pine, dry, and wetland forests (Tolentino and Peña, 1998). The study shows that, in recent decades, the purpose of deforestation has not been to manage or exploit forests but to replace them by other land uses such as crop farming, livestock breeding, and infrastructure.

Figure 3. Map of forest cover in the Dominican Republic, 1996

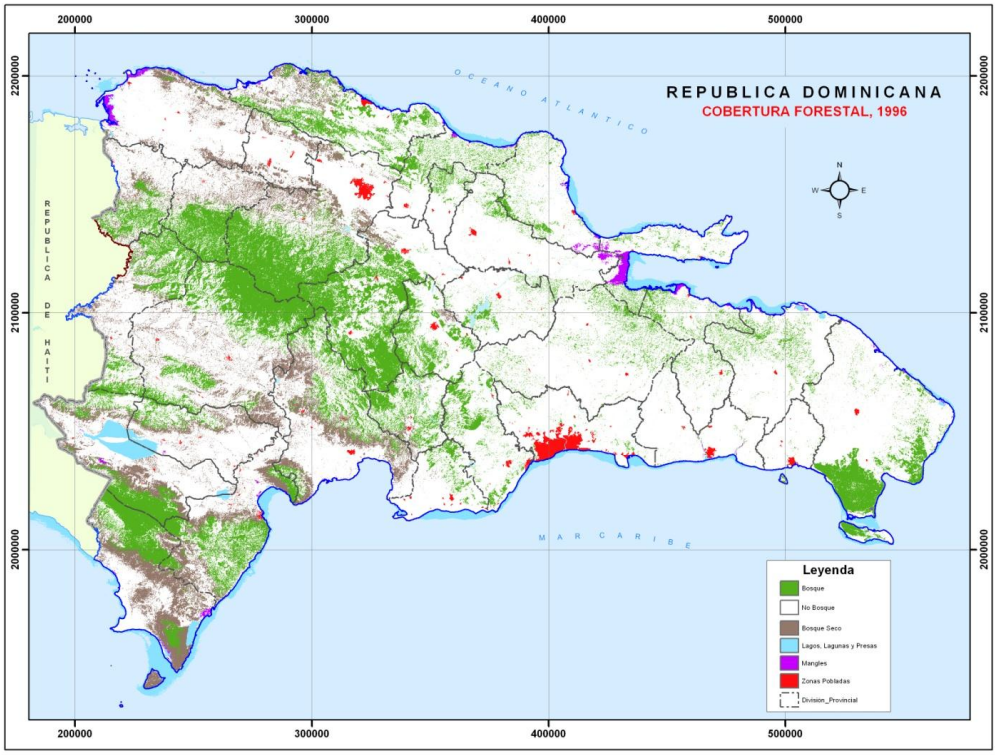


Figure 4. Map of forest cover in the Dominican Republic, 2003

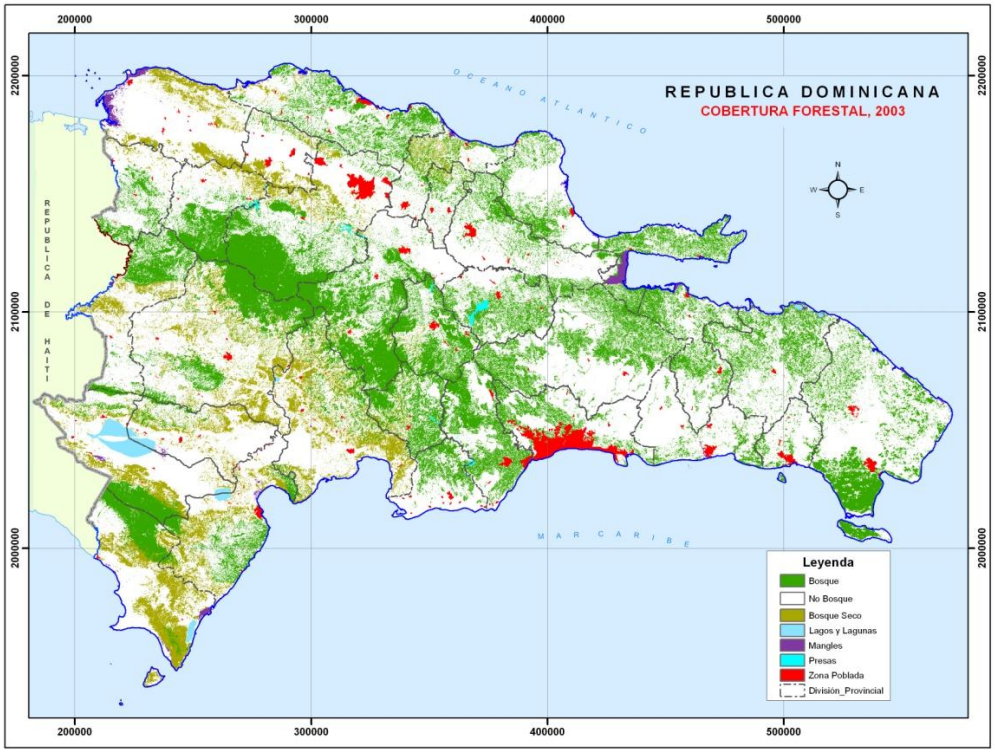


TABLE 6. Forest cover in the Dominican Republic according to different sources (km^2).

Type of forest	FAO (1973)	DIRENA (1984)	DIRENA (1996)	Ministry of the Environment (2003)	Ministry of the Environment (2011)
Broadleaf	7,619.0	3,400.2	6,563.2	8,632.0	15,085.3
Coniferous	1,962.0	2,444.4	3,025.5	2,783.1	
Mixed	1,385.0				
Dry forest		6,660.0	3,677.4	4,437.6	4,140.0
TOTAL	**10,966.0**	**12,504.6**	**13,266.1**	**15,852.7**	**19,225.3**
% of country	**22.80%**	**25.90%**	**27.5**	**32.90%**	**39.90%**

Source: Ministry of the Environment and Natural Resources (2011).

The evaluation performed by SEMARENA (2003) reported 1.59 million hectares with forest cover, equivalent to 32.9% of the country's total land area.

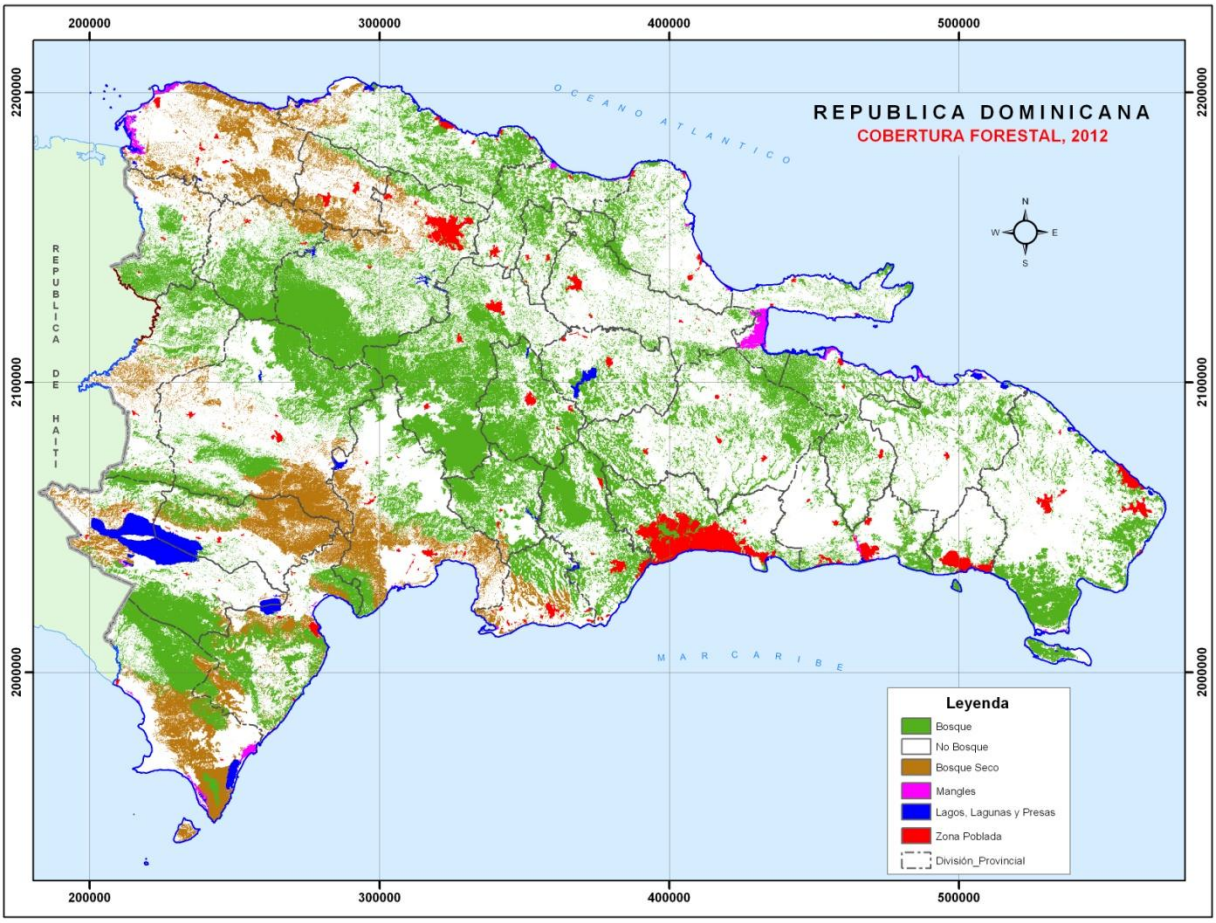
Comparing the areas occupied by vegetation units in the 1996 and 2003 studies, it can be stated that, the key changes in terms of land use dynamics were increases in forested areas from 28% to 33%; in grassland areas from 5.5% to 8%; in scrubland from 14.1% to 16.2%, and in urbanized areas from 0.8% to 1.5%.

There has also been a significant reduction in the areas used for agriculture—from 48% of occupied land area in 1996, to 38% in 2003.

It can be argued that these results reflect the actions of Dominican society as a whole, and not just government policy and environmental decision making; so interpretations of the drivers of deforestation and recovery call for an interdisciplinary analysis. These changes may in fact be due to changes in the national production model, which is tending towards a service economy.

Other recent studies conducted at the regional and river basin levels, show that these trends differ because of socioeconomic factors and the different policies applied for each region.

Figure 5. Map of forest cover in the Dominican Republic, 2012



Source: Ministry of ther Environment and Natural Resources. DIARENA with Landsat 2011.

A recent study conducted by PROMAREN shows that, from 1996 to 2010, the Artibonite watershed lost forest mass amounting to about 11,949 ha, equivalent to a rate of 1% or 854 hectares per year.

TABLE 7. Annual rate of deforestation in the Artibonite river basin, 1996-2010.

Category of use	Area Ha		Variation		
				Annual rate of deforestation	
	1996	2010	DifferenceHa	%	Ha
Forests	89,694.7	77,760.9	-11,933.8	-1.0	-852.4
Shade crops	3,208.5	11,006.4	7,797.9	17.4	557.0
Scrubland	33,932.7	39,925.5	5,992.8		
Agriculture	110,961.1	131,523.7	20,562.6		
Other uses	22,730.2	308.7	-22,421.5		

General Total	260,527.2	260,525.2			

Source: PROMAREN / GFA, 2010.

The same study, for the Bahoruco Jaragua-Enriquillo Biosphere Reserve, also showed that for the period 1996 to 2010, the subregion lost about 2,835 hectares in forest cover at a rate of 0.1% or 202 ha / year.

TABLE 8. Annual rate of deforestation in the Bahoruco-Enriquillo-Jaragua Biosphere Reserve, 1996-2010

Category of use	Area Ha		Variation		
				Annual rate of deforestation	
	1996	2010	Difference Ha	%	Ha
Forests	200,082	197,247	-2,835	-0.1	-203
Shade crops	1,771	3,833	2,062	8.3	147
Scrubland	76,414	77,481	1,067		
Agriculture	50,192	37,541	-12,651		
Other uses	56,483	68,842	12,359		
General Total	**384,942**	**384,944**			

Source: PROMAREN / GFA, 2010.

Another study, conducted in the Plan Sierra area of action, makes a quantitative and qualitative evaluation of the spatial changes in land use and soil cover of that subregion, in the period 1996 to 2009. In this study area, decreasing uses and coverages are as follows: cropland shrank by 1,762 ha from 4,134 ha to 2,372 ha. The area of grassland decreased by most, from 71,180 ha (40%) in 1996 to 48,797 ha (27%) in 2009. Cloud broadleaf forest shrank by 8,780 hectares and moist broadleaf forests decreased by 6,828 ha, as the land areas in question were mostly occupied by pine and coffee plantations. The dry forest coverage shrank dramatically from 27,881 hectares in the year 1996 to 15,819 ha in 2009, an 11.863 ha decrease. The land areas in question have mostly been occupied by dry scrub and glassland.

In this subregion, uses with coverage increases were: pine forest +4,932 ha; and semi-moist broadleaf forest +2,759 ha, possibly due to the expansion of dry scrubland. The land use that increased most was coffee growing, expanding from 3,977 ha in 1996 to 22,060 ha in 2009, followed by dry scrubland which registered a 18,083 ha increase.

TABLE 9. Use and coverage in the Plan Sierra area of influence, 1996-June 2009.

USE AND COVERAGE	CHANGES 1996-2009	
	Ha	%
Coniferous forest	+4,932	2.8
Moist broadleaf forest	-6,828	-3.8
Cloud broadleaf forest	-8,780	-4.9
Semi-moist broadleaf forest	+ 2,759	1.6
Dry forest	-11,863	-6.7
Mosit scrubland	+4,759	2.8
Dry scrubland	+19,935	11.2
Coffee	+18,084	10.2
Citic fruits	+29	0.02
Grassland	-22,383	-12.6
Agriculture	-1,762	-1.0
Dams	+1,000	0.6
Urban zones	+121	0.1

Source: Ministry of the Environment / Plan Sierra, 2009.

Another study of changes in land use and cover in the upper Yaque del Norte river basin made by DIARENA / GIZ, for the period 2003 to 2010, using spatial analysis, shows that the forest area in 2010 had grown by 1.08% compared to 2003, from 40,979 to 41,809 ha.

TABLE 10. Land use and coverage in the upper Yaque del Norte river basin, 2003-2010.

Use and coverage	2003	2010	Difference (ha)	Percentages (%)	
				Increase	Decrease
Forests	40,979	41,809	830	10.8	
Scrubland	9,960	5,060	-4,900		6.3
Coffee	8,930	4,814	-4,116		5.3
Agriculture and grassland	16,722	24,355	7,632	9.9	
Scant vegetation	19	58	39	0.1	
Mining	0.3		-0.3		
Dams	349	690	341	0.4	
Urban zones	282	455	173	.0.2	
General Total	**77,241**	**77.241**			

Source: Ministry of the Environment / GIZ, 2011

The same study also analyzed land-use change and coverage for the Municipality of Restauración, located in the upper reaches of the river Artibonite Dajabón province, finding that

the forest area experienced an increase in 2010 compared to the existing coverage in 2003 growinbg from 11,170.08 ha to 15,039.54 ha , equivalent to 14.83% of the total municipal area.

TABLE 11. Dynamic of land use change and coverage in the municipality of Restauración, 2003-2010

Category of use	Area Ha		Change 03/10		
	2003	2010	Difference Ha	Percentages (%)	
				Increase	Decrease
Total Forest	**11,170**	**15,040**	3,870	**14.8**	
Coníferous	10,666	8,428	2,238		8.6
Moist broadleaf		6,607	6,607	25.3	
Cloud broadleaf	504	5	499		1.9
Broadleaf scrub	8,872	1,885	6,987		26.8
Total agriculture	**6,057**	**9,174**	**3,117**	**11.9**	
Coffee	1,761	3,011	1,250	4.8	
Crops and livestock	4,296	6,163	1,867	7.2	
General Total	**26,098.65**	**26,099**			

Source: Ministry of the Environment / GIZ (2010)

In the Los Haitises National Park, a study conducted on "Land use change and forest cover" for the period 1988 to 2006 found that in the 18 years analyzed there was forest recovery, which now represents the primary coverage in the east-northeast area and in much of the central portion of the park.

In contrast, the area covered by mangroves retreated, although the rate of reduction is less than 50% shown in the table below, since the 2006 satellite photo has missing data in the northeast, which is actually occupied by such vegetation. Nonetheless, part of the reduction identified can be considered effective, not so much in the northeast, but in the Lower Yuna area contained within the park boundaries. The phenomenon can be partly attributed to increased human pressure in that area, following the reduction of the protected area decreed by Law 202-04 which is currently in force.

TABLE 12. Land use and forest cover in the Los Haitises National Park, 1988-2006.

Category	1998			2006		% change (B)	Differece between 2006 and 1988 (km^2)
	km^2	corrected km^2 (A)	%	km^2	%		

Mangrove	15	16	3	8	1	-50	-8
Crops	114	115	22	120	21	4	5
Forest	77	78	15	262	46	235	184
Scrubland	309	310	60	177	31	-43	-133

Source: SEMARENA / UNDP (2006)

2a.2 Governance in land use: land use figures

The term "governance" refers to the institutional capacity to improve the social, environmental and financial aspects of REDD-plus projects. Governance plays a key role when determining what happens in the forests themselves. Deforestation and forest dregadation may be the result of the combined effect of the occupation of the forest and of the institutions, which in turn define the set of incentives that lead to overexploitation. According to Ostrom (1990) the three pillars of democratic environmental governance are: access to information, public participation in decision-making, and access to environmental justification.

As noted, DFD can occur as a result of poorly defined property rights, including systems that reward deforestation by creating an occupation. In places with ambiguous, weak, or overlapping property rights, the incentives for investing in the long-term benefits from natural resources are also weak. A third set of governance factors also affect the fate of forests, including inadequate forestry laws and weak law enforcement capacity (Ostrom, 1990).

Through Law 64-00, the Dominican Republic defined the general guidelines and the policy principles and environmental governance structure, pursuant to the democratic mandates and commitments assumed under Principle 10 of the Rio Declaration of 1992. In practice, this law has defined instruments for each of the pillars mentioned above. In the case of access to information the rights created include those of Article 6, which proclaims citizens' freedom to use of natural resources, and access to accurate and timely information on the status and condition thereof. Article 49 and ff. created the National Environment and Natural Resources Information System. Nonetheless, while significant progress has been made in terms of compiling environmental information and making it available to the public, no such system has yet been put into operation. This instrument is reinforced by Law 200-04, on Free Access to Public Information (SEMARENA, 2008).

The rights of citizens to participate in decision-making, as specified in Law No. 64-00 materialized in mechanisms for the discussion of strategies, policies, and practical operations set out in Articles 19, 24, 38 and 41, and the regulations governing the issuance of permits and licenses, as well as participation in the National Environment and Natural Resources Council and the National Environmental Management System. Nonetheless, these two bodies have not yet come into operation (SEMARENA, 2008).

Access to environmental justice is based on Article 2 concerning public order, Article 3 on the heritage nature of environment and natural resources, Article 16 paragraphs 31 and 32 on collective and diffuse interests, and Article 178 on active procedural legitimacy, establishing the institutions responsible for enforcing those rights: namely SEMARENA, the Environmental and Natural Resources Ombudsperson, the courts of first instance and the Tax and Administrative Dispute Tribunal.

Although there is an adequate legal basis to ensure good environmental governance, both domestically and internationally, the regulatory framework needs to be completed by adopting other legal and specific technical regulations on access to information, public participation in decision-making and access to environmental justice. The pluralistic discussion and decision-making bodies created by Law No. 64-00 also need to be implemented.

2a.3 Analysis of the issue of land tenure

In the Dominican Republic the majority of hillside farmers have no legal title to their land. Without a guarantee that the land will continue to belong to them, farmers have no incentive to invest in making it more productive; and any long-term investment is discouraged, thereby generating DFD. The short-term alternative is to slash and burn. Insecurity of tenure and of the right to use the land and other resources, compounded by exclusion from markets, discourages investments that would be sustainable owing to low opportunity costs (Geilfus, 1998).

The World Bank (2002) notes that in the Dominican Republic land is highly concentrated in the hands of a few: 50% of the rural population has no access to land, 40% of those with access to land have less than 1.2 ha and 74% possess less than 3.1 ha. Just 700 farmers control over 15% of the land; and the 50 largest producers control more than 1,000 hectares each; 200 families

control about 600,000 ha, equivalent to 50% of the country's arable land, and only 40% of privately owned land is titled.

2a.4 Characterization of Deforestation in the Dominican Republic

In the historical and geographical context, Hispaniola island was hailed from the ontset of colonization as a paradise of natural wealth. Forest products (wood, resins, food, fibers, inks) were appreciated by the colonizers and traded, mainly in easily accessible places, from the start of the first voyages by Christopher Columbus and the establishment of the first European settlements.

When the Spanish colonizers arrived, more than 85% of the eastern part of the island, which is now the Dominican Republic, was covered by a forest canopy. The Europeans recognized the quality of the native wood, for which there was growing demand to build the ships used in the conquest of the New World; so species such as guaiac (*Guayacum Officinal*), which was very hard and useful for shipbuilding, was unscrupulously exploited. The same happened with mahogany (Swietenia mahogoni), cedar (Cedrela odorata), and other species (Russo, 1991, cited by Ovalle, 2011).

After a long war of independence, in 1844 the Dominican Republic embarked on its institutional development as a free nation founded on a very precarious rural agrarian economy and based mainly on foreign trade dominated by the export of forest products (32%). Timber—especially mahogany, lignum vitae and campeche—was the main export and trade product for many years stretching into the mid-twentieth century (Russo, 1991, cited by Ovalle, 2011).

Following the American invasion in 1916, the country's main roads were built, providing access to the coniferous forests, which had hitherto been inaccessible. "Pine fever" broke In the forest sector, which led to the installation of modern sawmills and the mass transportation of pine wood (Russo, 1991). In the period 1931-1939 this involved a average of about 7 million cubic feet (ft^3) of pine per year. In 1945 annual production reached a level of 13 million ft^3 (Russo, 1991).

According to Geilfus (1998), logging in the Dominican Republic, which began in full force in the nineteenth century did not generate the kind of timber industry that would have enabled the country to capitalize on its vast forestry resources, but instead facilitated the colonization of the

highlands. Once the lowland forests had been stripped, logging moved inland and the environmental effects of timber harvests and hillside agriculture started tomake themselves felt.

The fall of the Trujillo regime in 1961 was a time of extreme tension: thousands of farmers and landless peasants saw their chance, and the period 1962-1965 was witness to massive invasions of the timber concessions. To reaffirm ownership of their lands, squatters indiscriminately cleared the forest to practice slash and burn agriculture and establish pastures (Antonini et al, 1975, quoted by Geilfus, 1998).

From 1968 onward, the country started to depend almost entirely on foreign wood to meet the local needs of the timber industry; and imports of wood and wood products grew continuously, to attain a value of US$110 million in 2010.

2a.5 The drivers of deforestation

According to Kaimowitz and Angelsen (1998), the drivers of deforestation can be separated into two categories. The first involves factors directly linked to the act of logging or land degradation, referred to as direct or proximate causes. The second category includes background social factors that generate the direct causes, which are referred to as underlying causes.

2a.5.1 Direct causes

2a.5.1.1 Agricultural expansion

In the Dominican Republic the expansion of the various forms of crop and livestock farming is the predominant factor directly responsible for over 60% of deforestation. Overall, the agricultural sector contributes about 12% of Dominican GDP, and in 2004 the area devoted to farming activities occupied 53.4% of the country. The main crops are: sugar cane; 453,548 ha (9.4%); cocoa, 219,225 ha (4.6%); coffee, 132,000 ha (3%); African palm, 13,577 ha (0.3%); and coconut, 20,975 ha (0.4%). Hillside farmers are mostly small-scale producers without access to land of their own in the valleys, who work either on their own account or for landlords. The fact that all coffee and 30% of food crops are produced on hillside land has an impact on forest cover.

2a.5.1.2 Expansion of livestock activity

Livestock production is one of the most important land uses, in terms of competing with and replacing forests in the Dominican Republic. Livestock farmers occupy the largest area of hillside land on the upper and middle slopes. It is estimated that grazing areas currently occupy five times more than the area with potential for that use (475,000 on 9,108 farms). Traditionally, livestock breeders have used smallholder farmers "*conuqueros*" to clear forest areas and convert them to pasture after a few years of cropping.

2a.5.1.3 Extraction of forest products

The extraction of forest products such as firewood and charcoal, resin and *cuaba*, along with free grazing and foraging by animals, used as important sources of income and livelihood for the poorer sections of the rural population, has also been one of the key drivers of DFD.

2a.5.1.4 Hurricanes

Owing to its geographical location and topography, the country is permanently exposed to hurricanes and heavy rains that cause extensive damage to vegetation and other associated resources.

2a.5.1.5 Bush fires

The forest fires that recur regularly in areas of pine forest, whether caused naturally or because of human carelessness or criminal acts, contribute to deforestation and forest degradation in the Dominican Republic (Geilfus, 2002). According to official statistics (Ministry of the Environment, 2010) there were 6,678 forest fires in the period 1962-2010 that burnt 324,227 hectares.

2a.5.1.6 Infrastructure building

The forest fires that recur regularly in areas of pine forest, whether caused naturally or because of human negligence or criminal acts, contribute to DFD in the Dominican Republic (Geilfus, 2002). According to official statistics (Ministry of the Environment, 2012) during the period 1962 to 2012 there were 7,004 wildfires affecting 329,858 hectares.

2a.5.1.7 Mining

All mining in the Dominican Republic is open cast. This type of mining can cause damage not only in the extraction zones themselves but also in the vicinity, by degrading flora and fauna.

According to Dominican Mining Cadastre, four metal ore mines are currently registered, located in Monte Plata, Monsignor Nouel, La Vega, Pedernales and Sánchez Ramírez. The corresponding mining works cover an area of 34,502 hectares. There are 122 other non-metallic mining operations located throughout the country, covering 153,532 hectares. In addition, the construction industry depends on the extraction of aggregates, for which total demand doubled between 1995 and 2000 (16 million m^3 per year). Mining and gravel extraction (*grancera*) operations have generated many conflicts with the affected neighboring communities and heightened vulnerability to droughts and floods, thus becoming a major threat to forest conservation.

2a.5.1.8 Energy

The energy consumed in the Dominican Republic comes from two types of source: nonrenewable energy (90% from oil and coal) and renewable energy (10% from hydroelectric plants). The impact of using forests to produce charcoal and firewood has decreased significantly due to various incentives provided for the use of liquefied petroleum gas (LPG). This reduction is associated with the government's policy to subsidize LPG consumption and other NGO initiatives that have been promoted the use of LPG-fueled stoves and other cooking systems for many years. The threat of degradation and loss of forests from this cause persists in the border area with Haiti, where coal obtained from clandestine sources is produced and transported from the Dominican Republic to the neighboring country.

The last two decades have seen a radical reduction from 1,595,877 bags of 75 lbs each in 1982 to 75,000 in 2003. Approximately 265,067 Dominican households (10% of households) use firewood and charcoal for cooking.

According Checo (2010), the current volume of coal produced in the five border provinces amounts to 97,425 sacks per year, of which 46% is sold locally and 54% in Haiti. This represents an illegal market of RD$17.5 million (US$473,958), which involves intervention in 2,011 hectares of forest and employs a workforce of 21,204 laborers.

2a.5.1.9 Tourism

The growing area devoted to tourism infrastructure also results in significant loss of forests, especially in the coastal-marine ecosystem. Tourism has a major impact on biodiversity in zones of coastal forest, mangroves, and seagrass beds, which are seriously threatened ecosystems.

2a.5.2 Underlying causes

According to Geilfus (2002), the main processes of forest loss and degradation are related to four factors that influence stakeholder behavior:

- Opportunity costs determine processes of land-use change because the economic system faces many difficulties in developing a sustainable income system from the use of forest resources;
- Insecurity of land tenure and resource use deters investment in natural resource management;
- "Perverse" subsidies such as the 100% subsidy on the cost of equipment, investment, and infrastructure both to potable water consumers and irrigators, as well as subsidies on agrochemicals; and
- The lack of deterrence potential in the regulations owing to shortcomings in the system of rules and procedures, and the government's current low capacity to apply resource management, monitoring and control mechanisms.

Certain social, economic and environmental conditions have aggravated the direct causes of DFD in the Dominican Republic, and are referred to as underlying causes. These include:

2a.5.2.1 Population growth

One of the key drivers of deforestation is population growth. The total population of the Dominican Republic grew from 3 million in 1960 to more than 9.2 million in 2011, a growth rate of 1.4% per annum; and the population is projected to reach 11 million by 2020.

2a.5.2.2 Poverty and social inequity

According to various sources (UNDP, 2005, STP / ONAPLAN, 2005), the Dominican Republic has enjoyed sustained expansion over more than 50 years, making it the fastest growing country in the Latin America and Caribbean region. Nonetheless, this growth has not had a significant

impact in terms of eradicating poverty, and has occurred at the expense of a deteriorating natural resource base. Figures published by the National Planning Office (ONAPLAN) for 1998 estimated 44.2% of the total population as poor and 12.8% as indigent.

2a.5.2.3 Fiscal and development policies

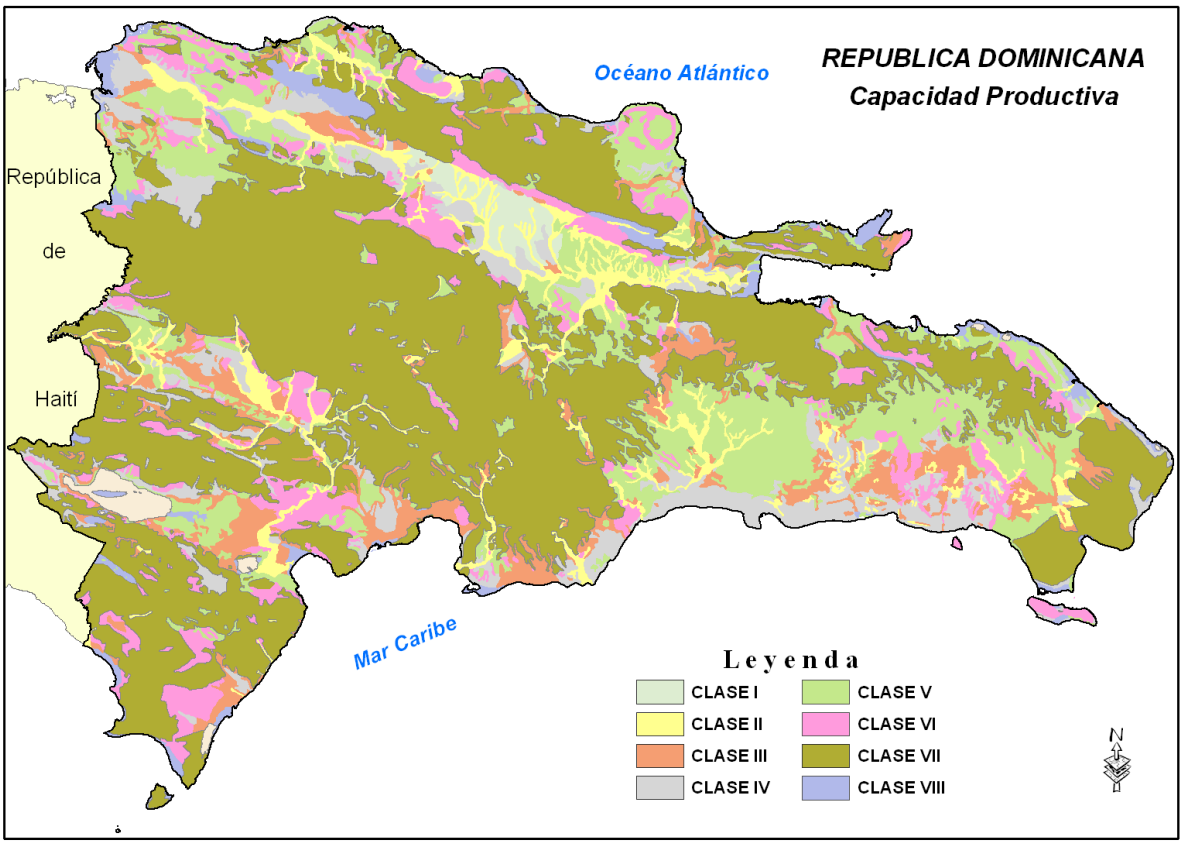
Although generally well-intentioned, many government policies prove counterproductive, because they have undesirable and unpredictable impacts that harm sustainable forest development. Morell (1988) claims that the Dominican Republic's macroeconomic policy has had an anti-rural bias: from 1966 to 1982, the two largest cities in the country (Santo Domingo and Santiago) received an average of 83% of total funding awarded. Government policies that were adopted to facilitate economic development in other sectors, but resulted in deforestation, include the following:

- Subsidized loans for crop-farming and livestock expansion;
- Reduced tax rates on land uses that compete with forest use;
- Duty-free importation of equipment intended for new industries that have a negative impact on forests;
- Infrastructure and energy development projects that do not take the value of the lost forest capital into account;
- Government-sponsored colonization programs in which forests were cleared and replaced by a marginally productive subsistence agriculture;
- "Perverse" subsidies such as the 100% subsidy on the cost of equipment, investment, and infrastructure both for potable water consumers and for irrigators, and subsidies on agrochemicals.

2a.6 Forestry regulations

The Dominican Republic has land of predominantly uneven topography that is considered unsuitable for intensive agriculture; as Figure 6 shows, 67% of the land is forested, including the upper and middle sections of all major river basins. Despite supporting a small proportion of the national population, natural resource use in these areas has profound implications for the sustainability of the national development model (Geilfus, 2002).

Figure 6. Productive capacity of the land in the Dominican Republic



Source: Ministry of the Environment and Natural Resources (2013).

Law 64-00 (SEMARN, 2002) declares the design, development, and implementation of the national land use plan incorporating environmental variables to be of high national interest. It also calls on SEMARN to develop and implement zoning or land use planning rules and parameters that identify and clearly define their potential of land areas and the uses to which they could or should be put, according to their capacity, specific potential, and environmental conditions. Currently, the Technical Secretariat of the Office of the President (STP), in coordination with SEMARN and other government bodies, has developed terms of reference for preparing the National Land Management Plan (SEMARN, 2002).

According SEMARN (2002b), land-use management measures in the Dominican Republic have thus far not gone beyond theoretical exercises based on cartographic data that are not always up

to date or reliable. In 1985, pursuant to a mandate of Law 705 of 1982, the National Forest Management Plan was approved by Decree 258-85. In the same year, studies were launched for the formulation of the Tropical Forestry Action Plan (TFAP-RD), under the auspices of FAO and the National Technical Forestry Commission (CONATEF). These large-scale planning endeavors did not result in practical application, largely owing to the low participation rate among key stakeholder sectors, compounded by a failure to adapt to the institutional reality on the ground.

Despite recognition of the strategic nature of land-use planning for priority watersheds, no national strategy has yet been developed that defines watershed management priorities, lines of action, and institutional responsibilities. Endeavors have often been hampered by the instability of government strategies, which tend to be revised following each change of government, and the lack of participation by local stakeholders in its conclusion and implementation. The municipal councils, which are responsible for the management of urban and rural land, lack instruments to fulfill this brief (SEMARN 2002c; INDRHI, 2004).

According to various sources (TNC, 2004; SEMARN, 2004b), many of the Dominican Republic's protected areas (PAs) are too small to preserve their biodiversity in the long term; they are not included in landscape planning, and there are no biological corridors linking existing PAs to help compensate for this deficiency.

There is no definition of priority areas for forest protection and the development of social and industrial forestry. There are no permanent mechanisms for local coordination that could promote sustainable planning and management. Lacking a regulatory bas and institutional mechanisms, the government acts as a facilitator of planning processes with economic agents, and prohibitory regulations are only applied with a centralizing perspective. Thus, the organization and planning of the use of natural resources remain incipient after twenty years of technical debate.

The management of forest resources is an important component of the National Land Management Plan, which should be viewed as a policy tool making it possible to: define the allocation and regime for conservation or management of the different forested areas; define the instruments and specific management responsibilities required by each scheme; and specify the lines of action needed to achieve the specific forest management objectives.

2a.6.1 The Draft Forestry Law

The Dominican Republic is fulfilling the procedures needed to pass a Forestry Law; and the draft law is currently in transit between the government and Congress. The purpose of the legislation is to specifically develop the provisions of the General Law on the Environment and Natural Resources (Law No. 64-00) to enable it to more effectively fulfill domestic aims of protecting, conserving, and restoring the country's forest ecosystems by defining appropriate guidelines, incentives and principles.

In particular, the Law seeks to reduce deforestation in forested areas and curb the advance of the agricultural frontier. It will also promote reforestation in forestry areas, the development of forest products and services, and the inclusion of civil society in forest management; and it will protect forest resources from fire, indiscriminate logging, loss of biological and genetic diversity, and from diseases and pests.

In addition to conserving biodiversity, watersheds and forest ecosystems, the draft law also proposes that the environmental services provided by forests will be valued and paid for as incentives to conserve and enhance public and private forest areas. The draft law intends to build and strengthen sustainable industrial development at all stages by involving community organizations and local governments.

An innovative feature of this law is the establishment of an incentive for conservation of the forest and sustainable forest development. Nonetheless, this entails granting financial and tax incentives for a period of 20 years to natural or legal persons and organized communities to implement projects for the creation and maintenance of plantations on land suitable for forestry, or conducting forest management activities, industrialization, transformation and processing of forestry assets that satisfy parameters of environmental sustainability, production efficiency and accountability.

The incentives would be paid by a Negotiable Tax Compensation Certificate (CRFN) which will have legal and commercial force to pay any taxes in the country.

2a.7 The key efforts made in the Dominican Republic for the recovery of forests and natural ecosystems

2a.7.1 Increase in forest cover

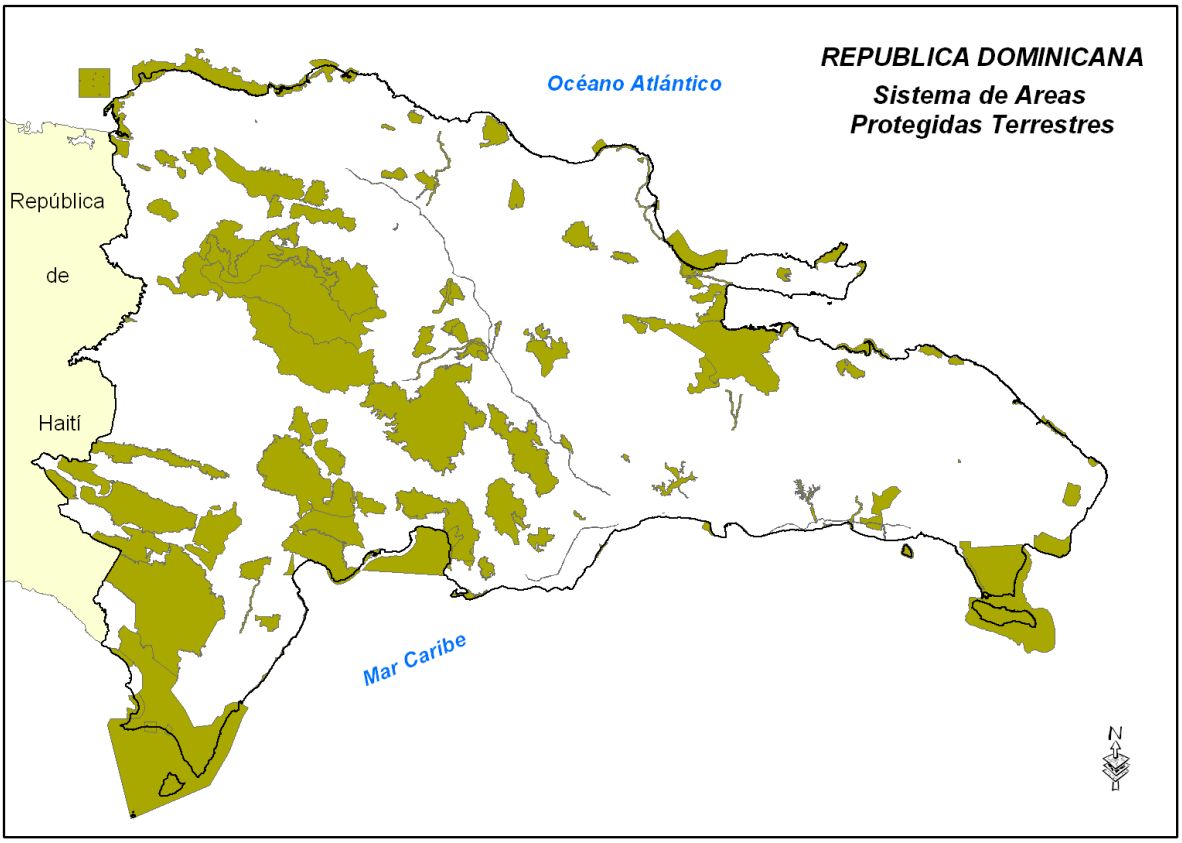
In 2003 the country's forested area amounted to 15,852 km^2 (32.9% of the country's total land area), while the figure is currently 19,128 km^2 (39.7%) , thereby confirming the estimate made by FAO in its latest "Forest Resources Assessment "(FRA) in 2010.

2a.7.2 Increase in SINAP areas

Since 1974, through Law 67 which created the National Parks Department, the National Protected Areas System (SINAP) has expanded considerably. By 2004 (under Law 202-04) there were about 86 sites occupying 9,511 km^2 (20% of the territory), while protected areas currently comprise 123 sites representing 12,033 km^2 and occupying 25% of the country's land area (Law 174-09, Decree 571-09, and Decree 571-11). The main function of these forests is the conservation of biodiversity, protection of land and water resources, and the conservation of cultural heritage.

The establishment of forest reserves and the creation of new National Protected Areas and Municipal Protected Areas are the key achievements in recent years in terms of the recovery and preservation of ecosystems.

Figure 7. The Dominican Republic's National System of Protected Land Areas

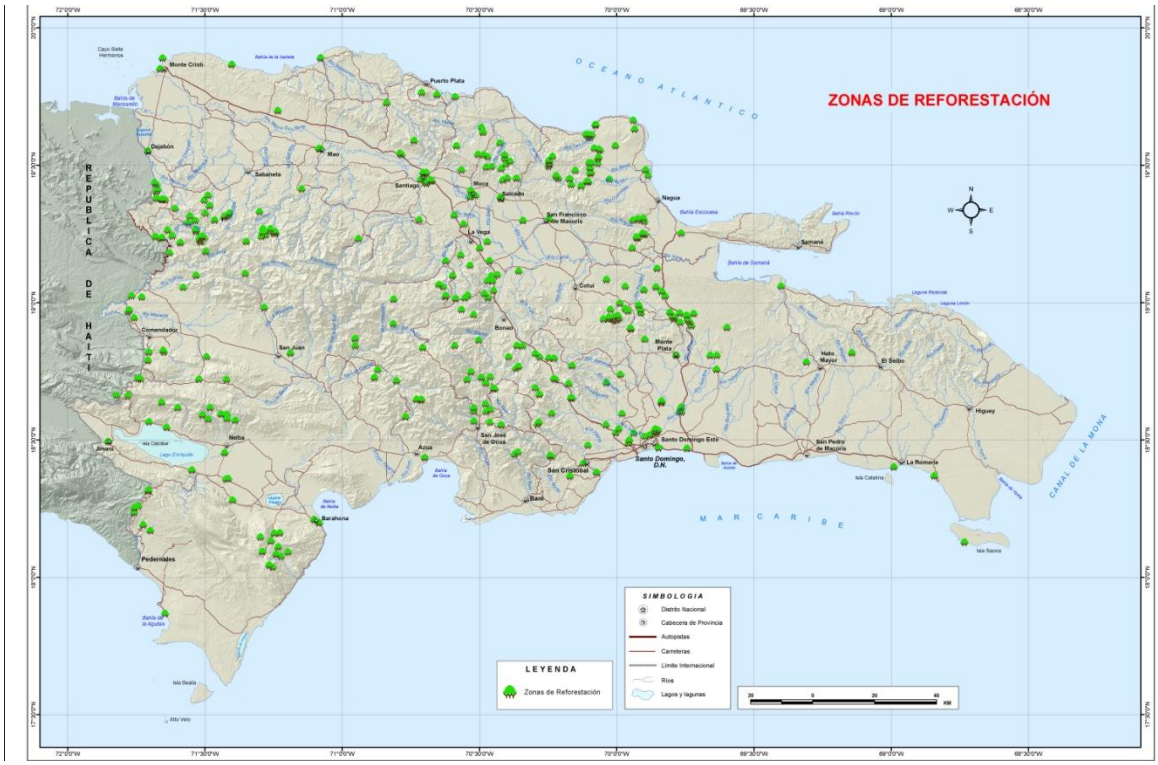


Source: Ministry of the Environment and Natural Resources (2013).

2a.7.3 Increase in forest plantations

Up to 1984 some 8,200 hectares of forest plantations had been established in the Dominican Republic, mostly implemented by the former General Directorate of Forestry for watershed protection purposes. Forest plantations developed by the Quisqueya Verde National Plan, as from 1997, attained a level of 107,907,617 trees in an area of 88,243 hectares (1,405,146 plantations). Since 2008 this plan has had a subprogram on the border with Haiti, known as Frontera Verde. The reforestation process that is occurring in the country, currently involves 316 forestry worker units (of which 48 work in the border area), with an investment of over US$12 million a year, funded from the National Budget through the Ministry of the Environment and Natural Resources (see Figure 8).

Figure 8. Reforestation fronts of the National Quisqueya Verde Program



Source: Ministry of the Environment and Natural Resources (2013).

2a.7.4 Increase in areas under forest management

The forest area covered by a management plan—an important tool for achieving sustainable forest management—has progressed significantly in the last decade. From 2001 to 2011, the Ministry of the Environment authorized 850 management plans covering an area of 63,000 hectares. In late 2011 a study was made of the impact of forest management in the municipality of Restauración, which revealed a 12% increase in forest cover between 2003 and 2010.

2a.7.5 Decreased charcoal consumption

In the early 1980s, the production of charcoal impacted all forests in the country, since this was used for cooking by 90% of the population. In the mid-1980s the government started to introduce a policy to subsidize propane and the stoves that use it, which was successful in terms of protecting forests since it reduced the demand for charcoal by a substantial amount in less

than 20 years. Today the proportion of population using this type of energy is estimated at just 12%.

2a.7.6 Control illegal logging

The Ministry of the Environment and Natural Resources, in conjunction with the National Environmental Protection Service, constantly makes major efforts to reduce illegal logging.

2a.7.7 Increased awareness and civil society participation

Thanks to ongoing efforts by the Ministry of the Environment to raise awareness of the need to protect, conserve and restore natural resources, high rates of participation by civil society organizations (community groups, NGOs and private sector) have been achieved in activities relating to conserving and increasing forested areas.

2a.7.8 Program for Payment and Compensation for Environmental Services

Resolution No. 10-08 of the Ministry of the Environment created this program with the aim of promoting the implementation of PES in the Dominican Republic, thereby contributing to setting up the National Compensation and PES System, with the aim of promoting natural resource conservation and contributing to rural poverty reduction. This program promotes the formulation and implementation of national PES initiatives and fosters strategic alliances between the various stakeholders for PES implementation, fostering links between the different PES initiatives existing across the country.

2a.7.9 Dry Forest Rational Management Program

According Checo and Casado (2008) the recent history of dry forest management in the Dominican Republic has added considerable value to this ecosystem. The Federation of Producers of the Southwest Dry Forest (FEPROBOSUR) is the best and virtually the only "school" in the country for managing this type of ecosystem. Created in 1986 with GTZ funding, in 1992 it became a legally autonomous organization with a mission to continue the processes initiated by the Dry Forest Project. The federation brings together some 70 organizations, spread across six provinces in the southwest of the country: Azua, San Juan de la Maguana, Bahoruco, Independencia, Barahona and Pedernales (INDESUR -GTZ, 1992).

Deforestation has several causes, most of which originate outside the forestry sector. The effective design of REDD-plus schemes and the implementation of policies to reduce emissions from deforestation require a clear understanding of the drivers of DFD. Understanding these drivers is crucial for identifying sustainable forest management policy strategies and implementing suitable incentives to control DFD, while benefiting the people whose livelihoods depend on the forest.

Although crop farming and livestock activities are direct causes of deforestation, a more in-depth analysis is needed to see what drives them and who benefits. The surface level displays what is most visible, namely the disappearance of the forest as a result of those activities. Below the surface, a number of policies and programs that promote them can be identified, together with the stakeholders that apply and benefit from this.

2a.8 Requirements to supplement and enhance the characterization

Various requirements to supplement and enhance the characterization. To better understand the dynamics of land-use changes in the country, problems of land tenure and carbon ownership, and the direct and underlying drivers of deforestation, various activities are presented for development below, which will make it possible to enhance and supplement the information available for making correct decisions in relation to the National REDD-plus Strategy:

• Analysis of land use, land tenure and the drivers of deforestation and forest degradation

- Analysis of shortcomings in the existing study
- Multitemporal and multicriterion analysis of current land use and the dynamics of land use disputes at the national and subnational levels
- Analysis of the direct and indirect drivers of deforestation at the subnational level
- Diagnostic study on land tenure and ownership, analysis of tenure disputes and the design of actions to improve land tenure

- **Sectoral assessments and their relation to deforestation**

- Analysis of sectoral policies, plans, strategies and programs and their relation to deforestation and forest degradation
- Analysis of effectiveness and policy articulation proposals
- Analysis of the advantages and disadvantages of different land uses

- **Analysis of previous experiences in conserving forests, reducing deforestation, and governance**
  - Analysis and systematization of programs and projects, governmental or otherwise, identifying factors of success or failure, leading to the identification of the main approaches to reducing deforestation.
  - Identify and evaluate the quality of pre-existing governance and the challenges involved in achieving appropriate levels of governance, and the potential opportunities and key obstacles to the development of the National REDD-plus Strategy.
- **Analyze the economic implications of the National REDD-plus Strategy for landowners**
  - Analysis of the opportunity costs of land at the subnational level
  - Conduct cost-effectiveness studies of sustainable forest management in coniferous and dry forests
  - Economic valuation of the environmental services generated by forests
- **Analysis and proposals for environmental and forestry regulations**
  - Identify and analyze environmental and forestry laws, regulations, and policies affecting deforestation
  - Proposal of regulations on the ownership and distribution of carbon benefits
  - Analysis of the regulatory framework and definition of carbon ownership and benefits
- **Dissemination of results**
  - Development and design of outreach materials.
  - Publication of outreach materials.

TABLE 13. Budget of Subcomponent 2a. Evaluation of Land Use, Forest Policy and Governance

Componente 2a. Evaluación del uso de la tierra, política forestal y la gobernanza			Miles de US$				
Componente	Subcomponente	Subactividad	2013	2014	2015	2016	Total
Subcomponente 2a. Evaluación del uso de la tierra, política forestal y Gobernanza	2a.1 Análisis del uso de la tierra, la tenencia de la tierra y de las causas de deforestación y degradación de bosques	Análisis socioeconómico sobre las causas del cambio de uso de suelos y cobertura forestal en la República Dominicana	10	10	5	5	**30**
		Análisis de las causas directas e indirectas de la deforestación a nivel subnacional (Fase II)	6	5	4	3	**18**
		Diagnostico sobre la tenencia y posesión de tierras, conflictosy mejoras requeridas para REDD+	15	5	3	3	**26**
	2a.2 Evaluaciones sectoriales y su relación con la deforestación	Análisis de las políticas, planes, estrategias y programas sectoriales y su relación con la deforestación	8	5	5	3	**21**
	2a.3 Análisis de experiencias previas para la conservación de los bosques y reducción de la deforestación y la gobernanza	Análisis y sistematización de programas y proyectos, gubernamentales o no, identificando factores de éxito o de fracaso, que conduzcan a la identificación de los enfoques principales para la reducción de la deforestación	12	5	5	5	**27**
		Identificar y evaluar la calidad de la gobernanza prexistente y los retos para lograr niveles adecuados de gobernabilidad, las potenciales oportunidades y los obstáculos clave para el desarrollo de la estrategia REDD.	10	5	5	5	**25**
	2a.4 Analizar la implicaciones económicas de REDD para los dueños de la tierra	Análisis de costos de oportunidad de la tierra a nivel subnacional	5	5	5	5	**20**
		Realizar estudios de rentabilidad del manejo forestal sostenible en bosques de coníferas y bosque seco	12	10	5	5	**32**
		Valoración económica de los servicios ambientales generados por los bosques	15	15	5	5	**40**
	2a.5 Análisis y propuestas de normativas ambientales y forestales	Identificar y analizar las leyes , normativas y políticas ambientales y forestales que inciden en la deforestación	8	4	4	4	**20**
		Propuesta normatividad de propiedad y distribución de los beneficios por el carbono	12	12	5	5	**34**
		Análisis del marco regulatorio y definición de propiedad y beneficios por el carbono	20	20	5	2	**47**
	2a.6 Difusión de resultados	Fortalezas y debilidades del anteproyecto de Ley Forestal para una Estrategia Nacional REDD+;	5	0	0	0	**5**
		Publicación de materiales de divulgación	3	5	5	5	**18**
		TOTAL	**141**	**106**	**61**	**55**	**363**
		Gobierno Dominicano	29	22	12	11	**74**
		FCPF (Banco Mundial)	77	58	33	30	**198**
		Programa Regional REDD/CCAD/GIZ	35	27	15	14	**91**

2b. NATIONAL REDD-PLUS STRATEGY OPTIONS

Standard 2b the R-PP text needs to meet for this component:

REDD-plus strategy Options

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

Presentation

For the Dominican Republic, this subcomponent is considered one of the most important parts of the readiness phase. It is the foundation that would underlie the definition and choice of the multiple proven and unproven alternatives put forward as options for land use change and natural resource management. During the preparation of this R-PP countless proposals emerged that need to be studied and weighed from different points of view, since all of them imply commitments of scarce financial resources that are normally managed by the central government.

The key issues proposed for working on in this phase are linked to aspects of the linkage between pilot projects and ministerial policies and the National Development Strategy. This raises the need to identify which government mechanisms can be implemented to promote activities that reduce forest degradation on a sustainable basis.

This component also aims to address issues such as: What tools could support the financing of land restoration and conservation actions? Gaining a better understanding of the current state of the forests of the National Protected Areas System (SINAP) and their importance in the National REDD-plus Strategy. How to strengthen societal ownership in the husbandry, development, and rational use of forest resources. What compensation options are sufficient and attractive in exchange for the environmental services provided by private forests. How to strengthen the timber supply chain and attain the targets of the National REDD-plus Strategy approach. How to implement a forestry land use plan for the National REDD-plus Strategy. How to harmonize tax policies, land tenure and forest conservation for long-term processes. What policies have most effectively promoted the forest recovery displayed by the Dominican Republic. What are the feasible options for land use change through sustainable management of natural resources. What political and institutional adjustments are needed for sustainable forest management. What alternatives could be implemented to guarantee forest monitoring, surveillance, and control as ways to reduce potential leakages in the National REDD-plus Strategy. These real challenges must be approached with a high level of governmental and social responsibility.

2b.1 General Guidelines for the National Emissions Reduction Strategy

The preparation of a National REDD-plus Strategy will seek to present strategic options (at the policy level of the Dominican State) clearly and accurately to DFD stakeholders, as options for change in the use and management of the country's natural resources. It is recognized that the main drivers of DFD are associated with poverty levels, habits and patterns of production, resource extraction (wood, mining, etc.), and the lack of capacity in the country to implement policies for sustainable change in the rural economy. Specify capacity strengthening commitments more effectively.

The definition of Strategic Options as a mechanism of change requires in-depth economic, social and fiscal analyses. During the preparatory workshops of this R-PP, stakeholders

identified various policy options for in-depth studyin this phase. Important elements such as land tenure, the way PAs have been declared in the SINAP, and other actions that have been identified as drivers of deforestation, will be analyzed greater depth; while the factors that have generated (to be checked) forest regeneration in the Dominican Republic will be more accurately interpreted, having reported sustained levels of approximately 1% per annum over the past 15 years. The reduction in firewood consumption reported in rural areas will also be verified, along with the impact of the National Forest Strategy, soil conservation initiatives, and other factors associated with illegal logging in the country.

To strengthen these databases, the Early Dialogues elicited several concepts in relation to the cross-sectoral, intersectoral, and crosscutting policies recommended by the stakeholders consulted, as general guidelines to be considered during the readiness phase of the National REDD-plus Strategy.

2b.1.1. Concepts related to Deforestation and Forest Degradation (+)

- The sustainable use of forests and their conservation are compatible with human development;
- As deforestation has many sources and is mostly driven by factors external to the forest sector, the solutions include broader actions affecting land use and rural development;
- The forestry community can not achieve policy harmonization on its own;
- Recognition of the need to manage all the values and functions of forestry ecosystems
- Restructure and improve the surveillance system and procedures for bringing recidivist forest vandals to court.

2b.1.2 Sector policy options to address the drivers of deforestation and degradation

- Switch to sustainable systems of crop farming and livestock practices undertaken on slopes and fragile areas; more effectively identify highly fragile areas in the country's forest ecosystems
- Restore degraded lands and protection of critical areas;

- Promote productive activities and livelihoods compatible with conservation
- Promote the establishment of silvopastoral systems that use livestock production techniques associated with the inclusion of tree species that are suitable for fodder and timber;
- Undertake work to stabilize slopes and degraded areas, with practices that are adapted to the needs of small-scale farmers;
- Promote "analog forestry"(simulating natural forests) in small farms as a strategy for soil recovery and restoration of biodiversity;
- Create a financing instrument for the implementation of soil restoration and conservation actions;
- Implementation of an awareness-raising and education program on sustainable production on hillside land.

2b.1.3 Intersectoral policy options to increase and capture forest income

- Manage protected areas and properly administer conservation areas;
- Societal ownership in the husbandry, development, and rational use of forest resources;
- Options that promote sustainable forest management;
- Increase carbon sequestration through reforestation for various purposes;
- Promote social forestry;
- Implement mechanisms of compensation for the environmental services provided by forests;
- Promote forest fire management and restoration work after forest fires;
- Strengthening of forest surveillance and protection to reduce illegal logging and trade in forest products;
- Strengthening of forestry programs for renewable energy production;
- Strengthening of the forestry industry that processes and transforms creole wood;

- Promote the cultivation of non-timber-producing forests under management regimes (flowers, spices, resin, fungi, etc.);
- Technical education and training in forestry;
- Strengthen forestry research;
- Strengthen forest management for the sustainable supply of forest products;
- Strengthen the marketing chain for timber products obtained from management plans and forest plantations;
- Set up energy farms to supply the domestic and international market for charcoal;
- Promote the incorporation of environmental and educational ecotourism in forestry projects;
- Promote the use of native and endemic species of high ecological value, to protect soils and provide food for birds in forest projects.

2b.1.4 Crosscutting policy options that directly regulate land use

- Promotion and strengthening of land use management;
- Harmonization with the policies and strategies of the most dynamic sectors of the domestic economy, with an impact on land use change;
- Alternatives for promoting cadastre initiatives and the regularization of land for titling;
- Promote legal and institutional adjustments in forest sector development.
- Alternatives that promote and strengthen equity and solidarity mechanisms;
- Comprehensive approach to landscape management and the development of sustainable multisector responses;
- Strengthening of forest governance;
- Promote community development activities and capacity building for environmental management;
- Demonstrate the role of forests in reducing the country's vulnerability to natural disasters;

- Strengthen the political, legal, and institutional framework for forest management with effective participation by forest stakeholders;
- Establish a suitable national system for the surveillance, monitoring and control of forestry assets.

TABLE 14. Budget of Subcomponent 2b. REDD-plus Strategy Options

Subcomponente 2b. Opciones de la Estrategia REDD+			Miles de US$				
Subcomponente	Actividad principal	Subactividad	2013	2014	2015	2016	Total
Subcomponente 2b. Opciones de la Estrategia REDD+	2b.1 Opciones de políticas para disminuir la deforestación y degradación de bosques por agricultura y ganadería	Análisis de medidas para una efectiva implementación y vinculación de los proyectos piloto y políticas interministeriales a una Estrategia Nacional (REDD+)	25	10	5	5	**45**
		Identificación de mecanismos estatales de largo plazo para fomentar actividades que reduzcan la degradación de los bosques en la Rep Dom	25	10	10	10	**55**
		La Estrategia Nacional de Desarrollo (END) y la aplicación de una Estrategia Nacional REDD+;	25	3	0	0	**28**
		Identificación de instrumentos de financiamiento para la ejecución de acciones de restauración y conservación de suelos	25	10	10	10	**55**
	2b.2 Opciones de políticas para aumentar y capturar la renta forestal	Estado actual de los bosques del Sistema Nacional de Areas Protegidas (SINAP) y su importancia en una Estrategia Nacional REDD+ en la República Dominicana;	25	10	5	5	**45**
		Empoderamiento de la sociedad en el cuidado, aprovechamiento y uso racional del recurso forestal	25	5	5	5	**40**
		Opciones para la compensación por los servicios ambientales de los bosques	30	10	15	10	**65**
		Análisis sobre alternativas para el fortalecimiento de la cadena de comercialización de productos maderables desde el enfoque REDD+	25	5	5	5	**40**
	2b.3 Opciones de políticas que regulan directamente el uso de la tierra	Plan de ordenamiento territorial forestal para REDD+	30	12	15	18	**75**
		Armonización con las políticas fiscales, tenencia de la tierra y conservación forestal	25	25	20	10	**80**
		Políticas que han impulsado la recuperación forestal en la Rep Dom	25	20	20	20	**85**
	2b.4 Opciones de políticas transversales	Opciones factibles para el cambio de uso de suelos mediante el manejo sustentable de los recursos naturales	20	10	10	10	**50**
		Análisis del marco político e institucional para una gestión forestal sustentable	20	10	10	10	**50**
		Alternativas para el fortalecimiento de la vigilancia, el monitoreo y el control como formas de reducir las fugas potenciales	20	10	10	10	**50**
		TOTAL	**345**	**150**	**140**	**128**	**763**
		Gobierno Dominicano	71	31	29	26	156
		FCPF (Banco Mundial)	188	82	76	70	416
		Programa Regional REDD/CCAD/GIZ	86	38	35	32	191

2c. NATIONAL REDD-PLUS STRATEGY IMPLEMENTATION FRAMEWORK

Standard 2c the R-PP text needs to meet for this component:

REDD-plus implementation framework:

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

Presentation

This subcomponent describes the concerns raised during the preparatory workshops relating to the definition of potential scenarios for applying the National REDD-plus Strategy in the Dominican Republic. Questions like who owns forest carbon rights, or how would the direct and indirect benefits of a carbon payments fund be managed, need to be answered in this readiness phase of the National REDD-plus Strategy.

Issues such as: what types of legal status in terms of land ownership are needed to be involved in the National REDD-plus Strategy; how to implement national projects or pilot schemes; what is the basis for the participation by the relevant stakeholders, and other issues that have have not yet been resolved. This subcomponent of the R-PP therefore proposes to conduct studies and diagnostic assessments with high levels of participation by relevant stakeholders on the interagency agreements needed to implement a National REDD-plus Strategy. Work to set up a REDD-plus Group nationally and give it the necessary laws and legal underpinning. Draw up proposals on legal issues required to implement the National REDD-plus Strategy mechanism in the country. Strengthen institutional partnerships related to reordering the national cadastre and

propose specifications for the forest land cadastre. Develop regulations and procedures for implementing the National REDD-plus Strategy mechanism in the country. Establish selection criteria and characterize potential areas for pilot projects. Characterize key partners, define their roles, and consider their responsibilities. Identify alternatives and sources for a transitory flow of funds to the National REDD-plus Strategy. Propose equitable ways to distribute the benefits generated by carbon sequestration. Identify funding sources and establish pilot business plans for carbon marketing. Define the the baseline of Yaque del Norte Pilot project. Economically value the economic, social and environmental impacts of the National REDD-plus Strategy. Analyze property rights and forest land registration from a National REDD-plus Strategy perspective. Study and propose the necessary institutional arrangements and set up pilot implementation mechanisms.

2c.1 Priority actions for the National REDD-plus Strategy implementation framework

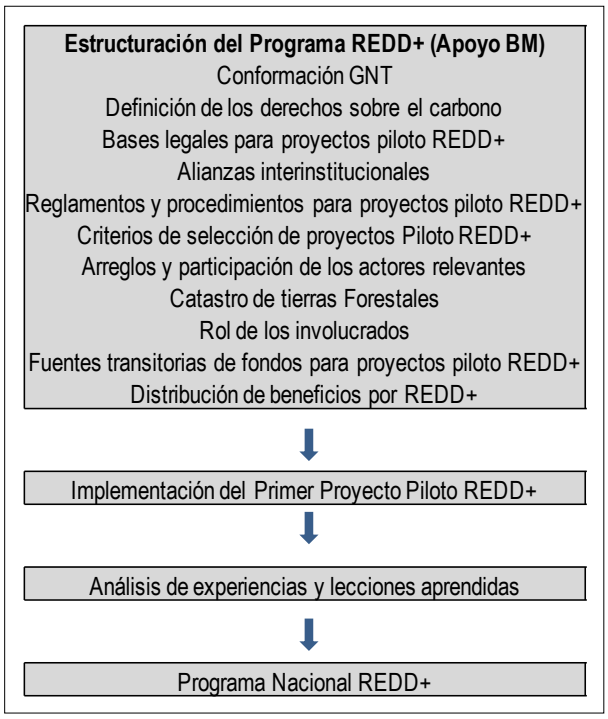
This subcomponent will define mechanisms for implementing the strategic guidelines defined in Component 2b, supported by institutional, legal and economic governance arrangements that are credible and transparent, to enable the country to implement its provisional options of the National REDD-plus Strategy.

During implementation of this strategy the aim is to address the institutional, cultural, economic productive and environmental issues directly, integrating the different issues simultaneously and on a complementary basis to enable the strategy to fulfil its objectives and bring about the substantial changes needed to have an effective impact on reducing deforestation and forest degradation.

2c.2 Framework for implementing the National REDD-plus Strategy in the Dominican Republic

The National REDD-plus Strategy implementation logic is based on the development of four phases namely: (i) preparation and guideline definition stage; (ii) pilot implementation, dialogue and participatory development stage; (iii) systematization and learning stage; and (iv) nationwide implementation stage.

Intervention process of subcomponent 2c



The policy, technical, administrative and financial proposals involved in the National REDD-plus Strategy process will be developed by consensus in the GNT. The rights of stakeholders and the state will be defined; and the strengthening of structures and partnerships for genuine territorial governance will be promoted. Rules and regulations will be issued; techniques will be instituted for implementation in the territories; and members of institutions and regional and community leaders will be trained in all matters relating to National REDD-plus Strategy implementation.

It is expected that once the foundations of the program have been developed, parallel pilot applications can be implemented at localized sites, to serve as learning and experiences for the National REDD-plus Strategy.

2.c.3 REDD-plus pilot project in the Dominican Republic

The Dominican Republic, through the Ministry of the Environment and Natural Resources, and with support from REDD-plus CCAD GIZ, has begun preparatory work to implement a REDD-plus pilot project in the Yaque del Norte river basin. The pilot project was selected under the following criteria:

1. Opportunity costs: areas with little potential for productive or commercial use.
2. Level of threat to the forest: areas where there are threats and options for dealing with them
3. Carbon Additionality: areas that currently have few mitigation activities.
4. Safeguards: international treaties and conventions are respected. Actions are consistent with the conservation of natural forests and biological diversity, and social benefits (see Annex 13).
5. Tenure: there is clarity in the tenure of forest goods and services (carbon property rights).
6. Size of forested areas: areas that could potentially be aggregated.
7. Biomass density: high carbon level.
8. Governance: institutional capacity to manage the social, environmental and financial aspects of REDD projects.
9. Risk of leakage: Low potential for deforestation to shift to other areas.
10. Potential replication: strategies and actions have potential for replication in other areas.
11. Community benefits: the actions to be taken have a potential impact on poverty reduction.
12. Relationship with other environmental services: the project area supports many environmental services with market potential.
13. Stakeholders willingness: there is stakeholder support for implementing the scheduled activities.
14. Availability of information: potential to fill information gaps.
15. Biodiversity: the actions would maintain a high level of biodiversity.
16. Ecosystemic services: high potential of ecosystemic services.

The activities to be carried out to implement the REDD-plus pilot site include the following:

Management and Coordination:

(a) Designing the project will require a team with expertise in the different areas: participatory processes, project management, forest legislation and the technical aspects that seek to add value to forest resources, such as: certification, PES, and forest carbon.

(b) Institutional structures will be developed to implement mechanisms of compensation and equitable distribution of the benefits generated by carbon sequestration.

(c) Cooperation mechanisms will be setup with partners that have extensive expertise in the different fields. The roles and linkages among these partners need to be very carefully defined.

(d) The organizational structure should not be complicated, but as simple as possible, in which the ***Ministry of the Environment and Natural Resources, the REDD program / GIZ and*** _____will be the main drivers of the entire process and with the key partners defined.

Technical Component

All available information will need to be systemised, and gaps in key information carefully identified. ***Specific studies*** will be required, such as: the flow of funds through REDD; definition of pilot areas; establishment of baselines (forestry, biomass, biodiversity and carbon); estimation of opportunity cost; development and implementation of the monitoring system; obtaining of images, mapping, etc., which should be costed in detail.

Sources of Funding

A ***detailed project budget*** will be prepared, both in its readiness phase, which will not yet have compensation funds, and in the implementation phase; the latter will take account of data obtained from the studies undertaken and from the incentive plans that have previously been implemented. This budget will cover the costs of necessary studies; identification of funding sources; a business plan for the trading of carbon credits; consultation workshops; training; an outreach and communications campaign, etc.

Key Stakeholders

To achieve governance and success of the project, all the stakeholders involved in the process will need to be coordinated from the outset: government institutions, rural communities and

institutions that have had a presence in the areas where the project is undertaken, which can lend credibility and offer advantages in the strategy for introducing and consulting the topic. In this case, an advantage is having already formed intergovernmental groups and Rural Committees. This will be used to create a ***steering structure*** making it possible to clearly define roles and responsibilities between the different project stakeholders.

2c.4 Status of land tenure in the Dominican Republic

The term "land tenure" refers to the relationships that individuals and groups have with the land; the rules that define how to assign people the right to use, control, and transfer land. Accordingly, the concept encompasses social, technical, economic, political, institutional and legal aspects.

The status of land tenure in the Dominican Republic is particularly critical. Compared to other Latin American and Caribbean countries, it is probably the country with the most archaic situation in that most small-and medium-scale rural producers do not have formal titles over their land; and the formalities for obtaining title are extremely complex and expensive. The documentation and statistics of the different forms of land tenure are very poor (Tejada and Peralta, 2002).

In the Dominican Republic there different forms of tenure, ranging from long-term leases, through rights to transfer, mortgage, donate or inherit land. But in all cases, the holder of such rights has power over the resource. Formal or informal rights that are frequently recognized include: making use of the land, excluding others from using the land, controlling land use, receiving income from the land, entitlement to compensation in the event of expropriation, transferring land to one's heirs, selling part or all of the land, mortgaging the land.

The Dominican Constitution recognizes the right to ownership as inherent to human status and prohibits expropriation, except when this is in the public and social interest and subject to the prior payment of the value of the property to its owner. However, the Constitution states that "in cases of public calamity, compensation may not be paid in advance." That provision has been historically used as an argument for the expropriation or seizure of property without prior compensation to the owners and sometimes without the enactment of an expropriation decree.

Section 13 (a) of the Constitution states that "social interest is declared on the allocation of land to useful purposes and the phasing out of latifundism. Land belonging to the State is assigned to agrarian reform plans, as is land obtained on a piecemeal basis, or through expropriation in the manner prescribed by this Constitution, which is not destined or should be destined for the State for other purposes of general interest."

The Civil Code also contains provisions on property in general, some of which concern general principles, while others relate to procedures. Article 544 of the Civil Code defines ownership as "the right to enjoy and dispose of things in the most absolute manner, other than for uses prohibited by laws and regulations." The following article provides that "no one can be deprived of the right of ownership except for a public purpose, subject to fair compensation as established by experts." This Code also identifies successions, grants, wills, sale, and exchange, and provides for usufruct and easement as different modes of acquiring property. It also regulates the basic principles of lease, sharecropping, and mortgage.

The World Bank (2002) notes that land in the Dominican Republic is highly concentrated in the hands of a few: 50% of the rural population has no access to land at all, 40% of those with access to land own less than 1.2 hectares (ha); 74% have less than 3.1 ha; and just 700 farmers control more than 15% of the land. The 50 largest producers control more than 1,000 hectares each; and 200 families control about 600,000 ha, equivalent to 50% of the country's total arable land, while only 40% of privately owned land is titled.

The Dominican Republic's cadastral system is far from operational, owing mainly to a general weakness in enforcement of existing laws and the dispersion of institutional competencies. The Deeds Registry Office maintains special ledgers recording ownership rights on unencumbered ("sanitized") property or any other right on property that is subject to registration; while the National Cadaster is required to perform a physical-legal, statistical, and economic inventory of all real estate in the country. In the Dominican Republic, these two entities operate as independent bodies with different powers and procedures; they are governed by specific laws and are attached to different institutions.

In general, lack of access to land and formal title thereto one of the key determinants of poverty. In rural areas, the state remains the largest landowner, in possession of about 40% of the best

agricultural land. These land areas are often used for agricultural purposes under precarious access systems.

2c.5 Registration procedure under the Property Registration Law

Following the recent reforms made to property law, the initial registration procedure, known as "sanitation" has been simplified in regulatory terms. This is expected to reduce the long waiting period to obtain first registration.

Article 20 of the Property Registration Law defines "sanitation" as a "public process in which the land plot is identified and individualised, the rights pertaining to it are specified, and they are registered for the first time." This involves three steps: a survey of the land plot, the allocation of rights, and registration.

Land surveying

This consists in identifying and locating the land on which ownership rights are being claimed. It is performed by a qualified professional engineer (surveyor) contracted for the purpose by the claimant. The professional in question must be authorized by the National Cadastral Survey Department. Once this has been done, the latter approves the work undertaken and refers the case to the corresponding Land Tribunal for the judicial procedure.

2c.6 The adjudication of rights

The rights adjudication process is conducted before the corresponding Land Tribunal of Original Jurisdiction, depending on the location of the property being registered for the first time. Immediately after taking the case the Tribunal sets a date for the hearing and notifies the parties of the summons. The hearing is then held in the place where the property is located and the evidence supporting the rights of the claimant(s) is received. Finally a ruling is issued, which, if satisfied with the evidence provided, orders the award and registration of property rights. This decision may be appealed by the parties before the corresponding Superior Land Tribunal.

The Register

When the Registry of Deeds receives the ruling handed down by the Land Tribunal of Original Jurisdiction, accompanied by a definitive plan of the property being registered, the Tribunal

issues the Certificate of Title, thereby registering the property. Henceforth thee will be no concealed property rights, and all amendments made in the future (whether to constitute, convey, declare, amend, or extinguish rights) must be recorded.

Lack of information and resources to pay the registration fee for transfers, inheritances, release and reconveyance of mortgages, and boundaries, often results in frequent informalities even under the Registered Property System. Cases of families in which the parents die and the descendants maintain the Certificate of Title in their name for years but peform a physical partition of the property are common, especially in rural areas.

2c.7 Modes of access to land

In the Dominican Republic land tenure can be obtained in different ways. In the case of rural land, the most common ways are inheritance, purchase, squatting or occupation, and through the Agrarian Reform. Squatting occurs in the form of occupation of land areas owned by the state or private individuals.

According to the *Sur Futuro* Foundation (FSF, 2012), Law 283 on Leases and Sharecropping, passed with the aim of providing protection to sharecroppers, has become an obstacle to this type of contract, making access to land via lease and sharecropping more difficult. Since this law was passed, the tenant has not only enjoyed lease or sharecropping rights on improvements made to the poperty, but also has a legal option to purchase the land. During its first few years of application, this law was applied by the Commission for Agricultural Law Enforcement., but in 1978 its functions were transferred to the Domincan Agraian Institute (IAD).

In the Dominican rural area, land is largely accessed through inheritance. A large proportion of land transfers from one generation to another takes place without documentation, since the property rights claimed are based on peaceful, public and uninterrupted possession by the parties over a period of five, 10 or 20 years. As a result the heirs would have to claim adverse possession before the Land Tribunal to secure the property rights in their favor and subsequently register them.

The rural area has the largest proportion of untitled land, especially properties belonging to small-and medium-scale farmers. This is mainly due to the high cost of land conveyancing

procedures in the formal market, coupled with the fact of widespread ignorance among farmers about the legal procedure for regularization their land and obtaining definitive titles.

The sale of land is another of the main ways of acquiring property in rural areas. The sale of non-titled land accounts for a significant percentage of the transactions that occur in the rural land market. As a large proportion of properties are untitled (about 50% are unregistered) what is sold is the right of possession, use and enjoyment, and improvements that have been made on the ground, since the properties in question are mostly state-owned or under private ownership; and, as they do not have valid documents (titles), a genuine transfer of property rights is impossible.

Although nowadays the transfer of ownership through consensual (verbal) contracts is gradually disappearing in rural area this practice has not yet been lost completely. In the upper Yaque del Norte river basin, 10 percent of respondents in a tenure study (Walter Tejada, 1998) claimed to have acquired their land through verbal contracts, and 43 percent claimed to have no document of any kind to support their ownership claim.

Another way to gain access to land in the Dominican Republic is through land reform. In this case, land is accessed by the tenant through the Provisional Allotment Certificate (working title) issued by the Dominican Agrarian Institute (IAD).This does not grant property rights over the allocated property, but a right of use and usufruct to exploit it in a limited way. Agrarian reform thus limits participation by the beneficiaries in the rural land market, since the law prohibits the sale of land allocated to farmers through the IAD; and the rights conferred by the Provisional Allotment Certificates do not give legal certainty to the rights of the tenant himself. In this regard, the World Bank notes that land reform processes in the Dominican Republic have been inconclusive, leaving the beneficiaries in a precarious position at the government's discretion, and with overlapping ownership claims that are unresolved (World Bank-undated).

2c.8 Status of SINAP in terms of cadastre and land tenure

The National Protected Areas System (SINAP) covers roughly 27% of national territory; and the georeferenced polygons of privately owned lots included in protected areas, are legally in the public domain.

One of the weaknesses of SINAP in the Dominican Republic is the fact that the land areas in question are not identified in the cadastre. Most frequently their boundaries are established in physical terms, which makes it hard to demarcate the area and ascertain the structure of land tenure. The law has called for a register to be produced to facilitate the work of the Ministry of the Environment and Natural Resources. To this end, technological progress now makes it possible to precisely locate each territory and file images of it. The recent reform in to Property Law will facilitate the cadastral identification of protected areas, since the survey procedure has been altered to replace obsolete measurement standards, with more precise technical instruments.

The survey work undertaken by the Supreme Court identified a total of 317 cases in 2009 on properties impinging on protected areas (in whole or in part), according to the provisions of Law 202-04. These possessions affect less than 1% of the SINAP, but they specifically affect 3.18% of forest reserves, 7% of natural monuments, 0.3% of national parks, 6.53% of wildlife refuges and 0.05% of marine mammal sanctuaries.

Law 202-04 on protected areas aims to ensure the conservation and preservation of ecosystems and provides that the rights pertaining to the Dominican State in the SINAP are “imprescriptible and inalienable.”. However, the Law also recognizes privately owned land with titles legally registered in the Register of Titles of the Superior Land Tribunal, prior to Law 64-00, stating that the state has “eminent domain” and shall be entitled to acquire them, upon payment.

2c.9 Carbon monitoring and the ownership of land and forests

During preparation of the proposal, consideration was given to the design and construction of a carbon monitoring system. This scheme will ensure a comparative evaluation of emission reductions and relate this to ownership and tenure of the forests. This structure is intened to control and monitor carbon benefits; and tools will be defined during the process for surveying and systemising carbon data. A special consultancy on land tenure and carbon ownership is currently under way for these purposes.

The budget contained in the following table shows what will be strengthened in this National REDD-plus Strategy readiness phase. The most important dimensions concern capacity

building, rights definition, cadastre and institutional arrangements for implementing the National REDD-plus Strategy.

TABLE 15. Budget of Subcomponent 2c. National REDD-plus Strategy implementation framework

Subcomponente 2c. Marco de Implementación de REDD+			Miles de US$				
Subcomponente	**Actividad principal**	**Subactividad**	**2013**	**2014**	**2015**	**2016**	**Total**
Subcomponente 2c. Marco de Implementación de REDD+	**2c.1 Arreglos institucionales para la implementación**	Establecimiento acuerdos institucionales para implementación estrategia	10	5	5	5	**25**
		Conformación Grupo REDD Nacional	10	4	4	4	**22**
	2c.2 Ajustes del marco legal	Elaboracion de propuesta de ajustes al marco legal existente, que favorezca la implementacion del mecanismo REDD+ en el pais.	10	3	3	3	**19**
		Instancias gubernamentales y reordenación del catastro de tierras forestales	10	5	5	5	**25**
		Elaboracion de reglamentos y procedimientos de aplicación del mecanismo REDD+	10	10	10	10	**40**
	2c.3 Selección y gestion de sitio piloto sobre REDD+	Establecimiento de criterios para la selección de áreas piloto y caracterización de zona potenciales para proyectos piloto	10	10	10	10	**40**
		Caracterización de socios claves, roles y responsabilidades	10	5	0	0	**15**
		Alternativas y fuentes para el flujo de fondos transitorios para REDD+	10	10	5	5	**30**
		Distribución equitativa de los beneficios generados por la captura de carbono	10	10	10	5	**35**
		Identificación de fuentes de financiamiento y establecer plan de negocios para la comercialización de bonos de carbono	10	10	15	10	**45**
	2c.4 Acciones para resolver derechos sobre las reducciones	Estudios línea base	10	20	20	20	**70**
		Valoración económica de impactos económicos, sociales y ambientales	10	10	10	10	**40**
		Análisis propiedad y registro de tierras forestales en REDD+	10	25	10	10	**55**
		Acuerdos Institucionales	10	5	5	5	**25**
		Establecimiento mecanismo institucional de implementación	10	5	5	5	**25**
		TOTAL	**150**	**137**	**117**	**107**	**511**
		Gobierno Dominicano	31	28	24	22	105
		FCPF (Banco Mundial)	82	75	64	58	279
		Programa Regional REDD/CCAD/GIZ	38	34	29	27	128

2d. SOCIAL AND ENVIRONMENTAL IMPACTS DURING READINESS PRERPARATION AND NATIONAL REDD-PLUS STRATEGY IMPLEMENTATION

Standard 2d the R-PP text needs to meet for this component:

Social and environmental impacts during readiness preparation and REDD-plus implementation:

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

Presentation

This component of the National REDD-plus Strategy readiness project will address the environmental and social priorities that arise from the process. For such purposes an SESA monitoring group will be created, following intersectoral coordination procedures and mechanisms to be defined in a participatory and inclusive way by those affected. During this preparatory phase of the National REDD-plus Strategy, early dialogue on social and environmental risks and benefits to be taken into consideration in the National REDD-plus Strategy will be opened up widely to forest-related sectors; and the lists and choice of stakeholders to form part of the SESA monitoring group will be created.

The participatory process of this "due diligence" stage will consider the analytical work of the stakeholders and, despite the fact the Dominican Republic has no indigenous groups, but peasant populations, the intention is to use the same analytical criteria for SESA. These include free consultation, the inclusion of women, youth, and old persons, community decisions, concerns, and doubts, the most suitable safeguards for the territories and peoples in question.

In selecting members for the SESA monitoring group, it is proposed that they be people with decision making powers, who genuinely represent REDD-plus related sectors, with local

leadership status and in full exercise of their powers. The Group must guarantee the country a fair and honest representation, with gender and intercultural equity and capacity to disseminate decisions. Members will be expected to have expertise in National REDD-plus Strategy issues, have worked in the process, have the capacity to contribute and act as leaders committed to the purpose and aims of the National REDD-plus Strategy, since this mechanism will be used to choese and work on the safeguards to be included in the program and related compliance actions.

The main purpoes of this component include:

- Definition of criteria for selecting members of the SESA monitoring group
- Selection of SESA Group Members
- Appointment of the SESA monitoring group
- SESA work plan
- Inventory of stakeholders
- Early dialogue with stakeholders
- Definition of baseline.
- Definition of SESA options policies
- Dissemination and consensus on policies to develop the SESA
- Analysis of possible risks of proposed strategic options for the National REDD-plus Strategy
- Effective systems of participation by key stakeholders and vulnerable groups
- Assessment of opportunity costs of land uses
- Development of results reporting to SESA
- Dissemination of the SESA report
- Socialization and consensus with key stakeholders on benefits and risks of the environmental and social management framework (ESMF)
- ESMF mitigation and management options

- Schemes to address ESMF social, environmental and political impacts
- Preparation of ESMF report
- ESMF dissemination
- ESMF Implementation

2d.1 Institutional arrangements for SESA management

The definition of institutional arrangements for the preparatory process must include the the institutional arrangements to lead SESA management. This will be coordinated in the Ministry of the Environment, which houses the Climate Change Department. The entity responsible for this process will coordinate efforts both within and outside the government, to involve the maximum number of stakeholders affected either positively or negatively by the actions and policies.

2d.2. Definition of stakeholders or stakeholder groups

The updated stakeholder map will more accurately identify the groups involved in the management and conservation of forests along with other stakeholders preliminarily identified as deforestation agents. The process of consultation on the social and environmental impacts of the strategy options and policies will start with them. Studies also be identified as necessary to support the analysis.

2d.3. Production of / consensus on the SESA development plan

After the stakeholders have been defined, steps will be taken to reach consensus with them to develop the SESA. The first steps will be to define the options and policies to be evaluated and then identify the main studies that can inform the discussion and conclusions.

2d. 4. Identification and development of studies

At this stage, studies will be identified and conducted to support the discussion of impacts, along with specific studies to assess impacts on issues identified with the stakeholders.

2d.5. Analysis and evaluation of social and environmental impacts

The results of the studies will deepen analysis of the social and environmental impacts, and the evaluation will be performed. For the latter, a format will be prepared that shows all the elements of analysis, evaluation criteria, and where the indicators will be defined to ensure objectivity. A feedback process with the key stakeholders will be important here. The methods will involve focus groups, consultations, studies and evaluation methodologies implemented by operational policies.

2d.6. Disseminaton of evaluation results

The evaluation and its results will be disseminated as part of the consultation process specified in component 1c. Here recommendations will be sought to help define the steps to finalize the preparation of the national framework for managing environmental impacts, considering the social safeguard policies suggested by the World Bank and other schemes.

2d.7. Development of the national SESA report

The report generated from the SESA will serve as the starting point for defining the framework for managing the social and environmental impacts generated by the National REDD-plus Strategy. This will be done through the ESMF.

2d.8. Preparation of the environmental management framework (ESMF)

The ESMF aims to define procedures for managing the potential impacts on the environmental and social framework. Participation and feedback from stakeholders is critical to the validity of this process.

The content of SESA and the ESMF is defined by the following, at least:

- Report the downside risks and benefits of the strategy options prioritized by the stakeholders.
- Mitigation measures and risk management alternatives.
- Schemes addressing the social, environmental and political impacts.

TABLE 16. Subcomponent Budget 2d. Social and environmental impacts

Subcomponente 2d. Impactos sociales y ambientales			Miles de US$				
Subcomponente	**Actividad principal**	**Subactividad**	**2013**	**2014**	**2015**	**2016**	**Total**
Subcomponentes 2d. Impactos sociales y ambientales	2d.1 Establecer los arreglos institucionales para el manejo de la SESA	Preparación y validación estructura implementación de la SESA	5	7	5	5	**22**
	2d.2 Definición de actores o grupos de actores	Inventario actores claves nacionales e internacionales a todos los niveles	10	12	5	2	**29**
		Caracterización actores (identificación de roles)	5	7	4	2	**18**
		Diálogo temprano con actores claves	8	5	5	5	**23**
	2d.3 Elaboración /consenso del plan para desarrollar la Evaluación estratégica de los impactos sociales y ambientales (SESA)	Definición Línea Base	12	10	10	5	**37**
		Definición opciones y políticas para SESA	15	10	0	0	**25**
		Socialización y consenso de políticas para desarrollar la SESA	5	10	5	0	**20**
	2d.4 Análisis preliminar de impactos sociales, culturales y ambientales que las actividades REDD+ podrían ocasionar	Elaborar formatos de evaluación (estableciendo criterios e indicadores)	5	5	5	5	**20**
		Análisis impactos sociales y ambientales por sectores productivos	5	12	10	10	**37**
		Análisis de posibles riesgos de las opción estratégicas propuestas para REDD+	15	10	5	5	**35**
	2d.5 Análisis y evaluación participativa de los impactos sociales, culturales y ambientales	Sistemas efectivos de participación de actores claves y vulnerables	10	5	5	5	**25**
		Evaluar Costos de oportunidad del usos de la tierra	5	30	30	10	**75**
	2d.6 Publicaciones del Reporte Nacional SESA	Elaboración reporte de resultados para SESA	5	10	10	5	**30**
		Socialización reporte SESA	5	5	5	0	**15**
	2d.7 Preparación participativa del Marco de Manejo Ambiental y Social	Socialización y consenso con actores clave sobre beneficios y riesgos del ESMF	5	5	5	5	**20**
		Medidas de mitigación y opciones de manejo de ESMF	5	10	10	10	**35**
		Esquemas de abordaje impactos sociales, ambientales y políticos ESMF	5	5	5	5	**20**
	2d.8 Publicación del Marco de Manejo Ambiental y Social	Elaboración reporte de ESMF	5	10	10	10	**35**
		Socialización ESMF	5	5	5	5	**20**
		Implementación ESMF	5	10	15	5	**35**
		TOTAL	**140**	**183**	**154**	**99**	**576**
		Gobierno Dominicano	29	37	32	20	118
		FCPF (Banco Mundial)	76	100	84	54	314
		Programa Regional REDD/CCAD/GIZ	35	46	39	25	144

COMPONENT 3: DEVELOPMENT OF A NATIONAL FOREST REFERENCE EMISSION LEVEL OR A NATIONAL FOREST REFERENCE LEVEL

Standard 3 the R-PP text needs to meet for this component:

Development of a national forest reference emission level or a national forest reference level

esent work plan for how the reference level for deforestation, forest degradation (if desired), conservation, sustainable management of forests, and enhancement of carbon stocks will be developed. Include early ideas on a process for determining which approach and methods to use (e.g., forest cover change and GHG emissions based on historical trends, or projections into the future of historical trend data; combination of inventory and/or remote sensing, and/or GIS or modeling), major data requirements, and current capacity and capacity requirements. Assess linkages to components 2a (assessment of deforestation drivers), 2b (REDD-plus strategy activities), and 4 (monitoring system design). (FCPF recognizes that key international policy decisions may affect this component, so a stepwise approach may be useful. This component states what early activities are proposed.)

Introduction

As in the other countries making up the SICA, carrying out of the current assessment and future projection for deforestation and for the carbon stock in the Dominican Republic are being accompanied by the REDD-Plus/CCAD/GIZ program:

In this stage of preparation of the National REDD-plus Strategy, and as part of the support requested from the Carbon Fund (FCPF), it is proposed to incorporate preparatory actions into this Component that are complementary to and important for the topic of *Reference Levels,* like that of national technical training, the creation of databases, the strengthening of agreements and links with educational and research institutions, the definition of carbon stocks, development of methodological options, studies of tree dimensions, mapping of DFD agents, modeling of processes, and benefit scenarios and quantification, among others.

The "forest reference emission level" (REL) or "forest reference levels" (RLs) of this proposal are related to analysis of the historical, current and future variations in CO_2 emissions in the Dominican Republic arising from deforestation and/or forest degradation. Hence a national commitment is established on this aspect, to follow the FCPF's general guidelines for the R-PP and the Forest Reference Level (RLs), so as to estimate the trends in changes in forest cover and other land uses, both within the REDD-plus scenario, as well as in the absence of the REDD-plus intervention policies, for their quantification and comparison in terms of emissions.

Like the other countries in the program, the Dominican Republic is committed to using four aspects that are fundamental for analysis of deforestation, with a view to obtaining the forest reference emission levels:

a) The historical dynamic of forest emissions: based on multitemporal analysis of changes in the forest cover;
b) Establishing a "baseline" for forest cover (*ex ante* forest cover map);
c) Calculating the trends or future projection for deforestation, taking into account the maintenance of current conditions (this refers to analyzing historical trends and their relationship to the drivers of deforestation);
d) Projecting future deforestation, taking into account changes in variations in the drivers of deforestation, and/or the socio-economic environment that is the product of application of measures directed to curbing the destruction of the forests; and
e) Making the adjustments that are necessary and timely as required by national circumstances.

Building reference scenarios based on historical trends requires the availability of solid data regarding forest cover and carbon stocks in the forests. While in the Dominican Republic there is a good quantity of information related to the forest resource, an analysis with a greater degree of detail is required, along with specific work directed to using that background in the building of the reference levels. Along these lines, the basic elements for determination of the national level reference levels are given by:

- The current forest cover map, which is already being developed in the country, using high-resolution (5 m) RapidEye images that have been acquired by the REDD/CCAD/GIZ Program, at a cost of US$75,000;
- Analysis of historical deforestation for the years 2000, 2005 and 2010, based on Landsat images, which is also currently underway and is in the validation phase:
- The National Forest Inventory, which is in the stage of design and planning for generation of the basic inputs;
- The plan for building of the allometric functions for the country's various kinds of forests, which has already been formulated, with initial support committed from the German Agency for International Cooperation (GIZ).

These four basic inputs are already in the stages of planning, implementation and operation, with the support of the REDD/CCAD/GIZ Program, and it is expected to produce concrete results during the coming year of 2014. Consequently, with these elements it will be possible to determine national and sub-national reference levels, in the required cases, with a high degree of precision and with the ability to reach a Tier 1 level over the medium term.

3.1 Projected Carbon

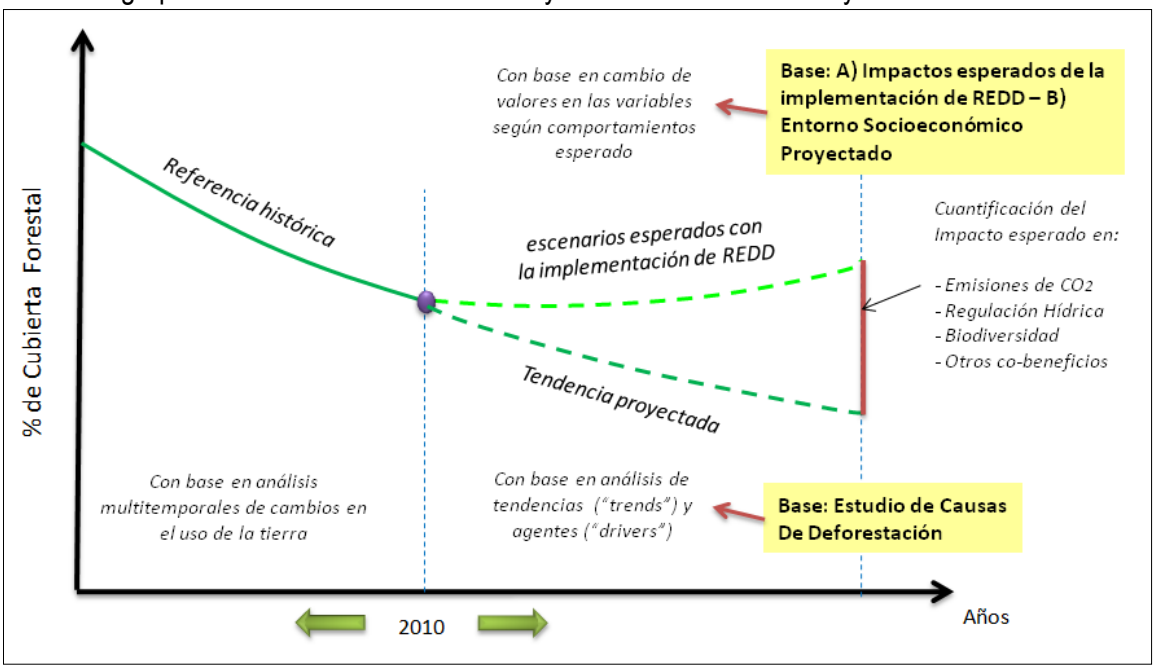
Since June 2011 the REDD-plus/CCAD/GIZ Program has been supporting the carrying out of a national forest inventory in the Dominican Republic for the purposes of REDD-plus. It proposes to determine the carbon stock contained in the forests, by means of:

a) Non-geographical correlation models, with which one does not obtain a spatial identification of the future deforested areas; or with

b) Geographical correlation models, with which it is indeed possible to identify cartographically the areas that it is expected will suffer deforestation (or restoration) in the future (Figure 9).

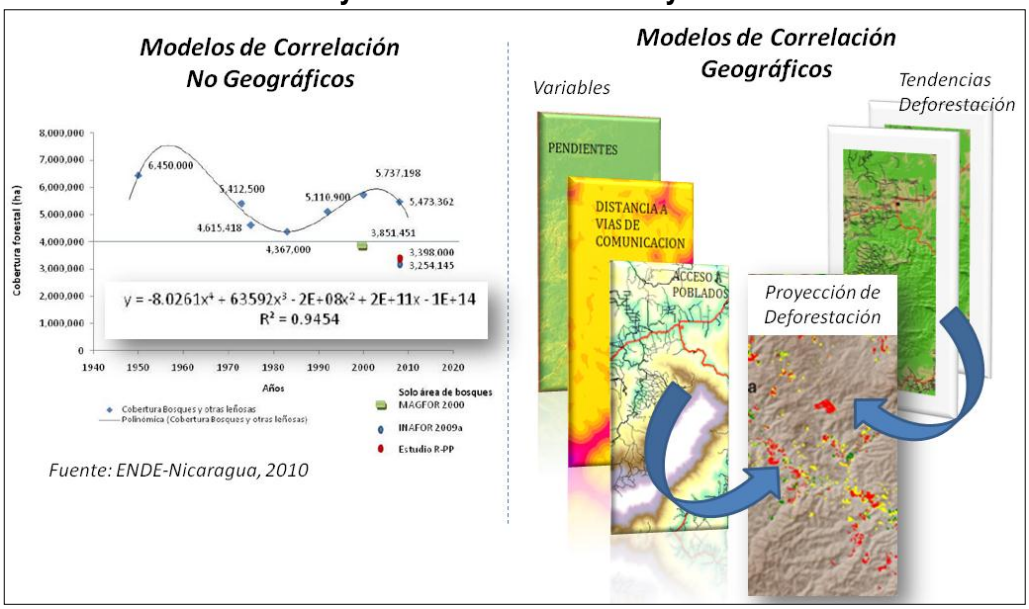
This involvement by the regional REDD-plus/CCAD/GIZ Program represents – in addition to a technological advantage – a substantial contribution to the generation of knowledge, which when added together with the purposes included in the FCPF's proposal, will mean a high-value alliance for preparation of the Dominican Republic's National REDD-plus Strategy. The correlation and forest dynamic models are common to all of the countries in the program, as explained in the figures presented below:

FIGURE 9. Geographical correlation models for analysis of the deforestation dynamic



SOURCE: Adapted from the Mexico–Norway Project "Reinforcing REDD-plus Readiness in Mexico and Enabling South-South Cooperation"

URA 4. Basic elements for analysis of the deforestation dynamic



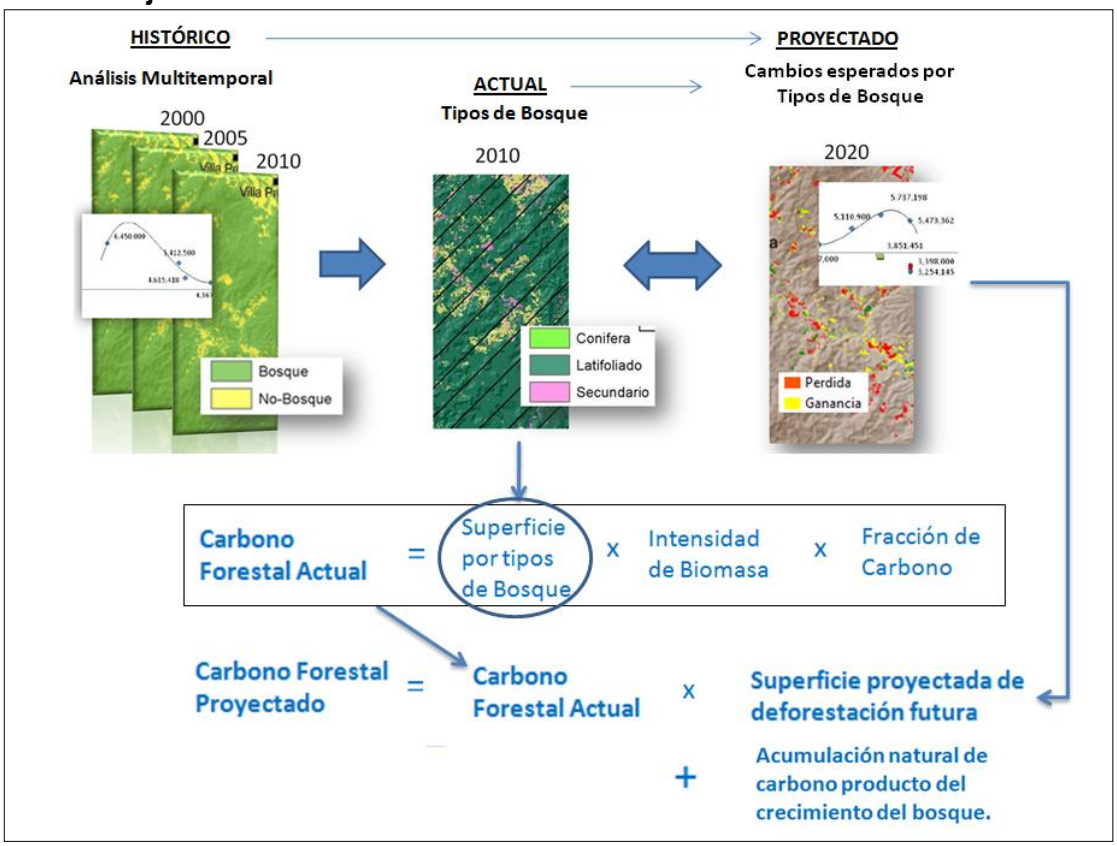
SOURCE: Adapted from the Mexico–Norway Project "Reinforcing REDD-plus Readiness in Mexico and Enabling South-South Cooperation"

The project seeks to estimate the future deforestation surface areas and subsequently project the forest carbon coming out of that deforestation. For this calculation one starts from the assumption that future forest carbon over the surface area of a given forest will be equal to the current forest carbon, plus the natural accumulation (or loss) of carbon as the product of the natural growth of the forest.

It is expected that the RL will provide information on the five activities contemplated in the REDD-plus mechanism: (a) reducing emissions from deforestation; (b) reducing emissions from degradation; (c) conservation of the carbon stocks in the forests; d) sustainable management of the carbon stocks in the forests; and (e) increase in the stocks of forest carbon. The Forest Inventory that is underway will report information on the five forest carbon stocks as established by the IPCC, which are: (a) above-ground biomass; (b) below-ground biomass; (c) dead wood; (d) leaf litter/detritus; and (e) soils. Several training sessions have been held, both at international level for experts, as well as two national-level courses for the technical staff who will be important stakeholders in this inventory.

The reference levels (RLs) are a fundamental project component within the framework of international REDD-plus incentives. The RLs will establish the "baseline" that represents current routine practices, or "business as usual", and will act as a point of reference for undertaking measurement of the current emissions: the reduction of emissions calculated as the difference between the RLs and the current emissions. Thus the RLs will offer a basis for measuring the success of REDD-plus in the Dominican Republic.

FIGURE 10. Projected Forest Carbon Correlation Scheme



Source: Report from the Workshop on Forest Monitoring in the Dominican Republic (www.REDD+ccadgiz.org)

3.2 Key Conceptual and Strategic Aspects

In line with Decision 1/CP.16 of the sixteenth UNFCCC COP, developing countries are asked to draw up an RL, or rather, as the case may be and as a provisional measure, sub-national forest reference levels, in line with national circumstances and with the provisions of Decision 4/CP.15 of the fifteenth Conference of the Parties in 2010. The following are amongst the conceptual and strategic aspects that the Dominican Republic is to set out:

3.2.1 Adopt the definition of forests that is most appropriate for the country

A process was recently begun in the country of creation of consensus on this topic amongst the experts, although a final consensus has yet to be achieved. To date the majority of those consulted are in agreement on the following parameters: *surface area covered by trees with a minimum crown cover of 40%, forming a continuous mass of a minimum of 0.5 ha, and that in its mature state reaches a minimum height of five meters). See Appendix 1 with the explanation of the discussion process.*

3.2.2 Determine the scope of the activities to be included in RLs

Supports decision-making in the five REDD-plus activities: reducing emissions from deforestation; reducing emissions from forest degradation; conservation of the carbon stocks in the forests; sustainable management of the carbon stocks in the forests; and increase in the carbon stocks. In the event of it being necessary to prioritize between these five REDD-plus goals, it is proposed to begin with reducing emissions from deforestation, due to the fact that the methodology for its quantification is more complete. The following key stakeholders will be taken into consideration in building the RL from degradation: occurrence of forest infestations and diseases; occurrence of forest fires, occurrence of hurricanes, and reduction of the forest carbon as a consequence of illegal logging.

3.2.3 Define the carbon stocks and GHGs included in the RL

The five carbon stocks as set out by the IPCC: above-ground biomass; below-ground biomass; dead organic matter; dead wood; and leaf litter and detritus. It is proposed that in an initial stage, basically the above-ground biomass get included, this being where the greater part of the carbon is concentrated, and later to recalculate the RLs for the other stores.

3.2.4 Determine the scale (national or sub-national)

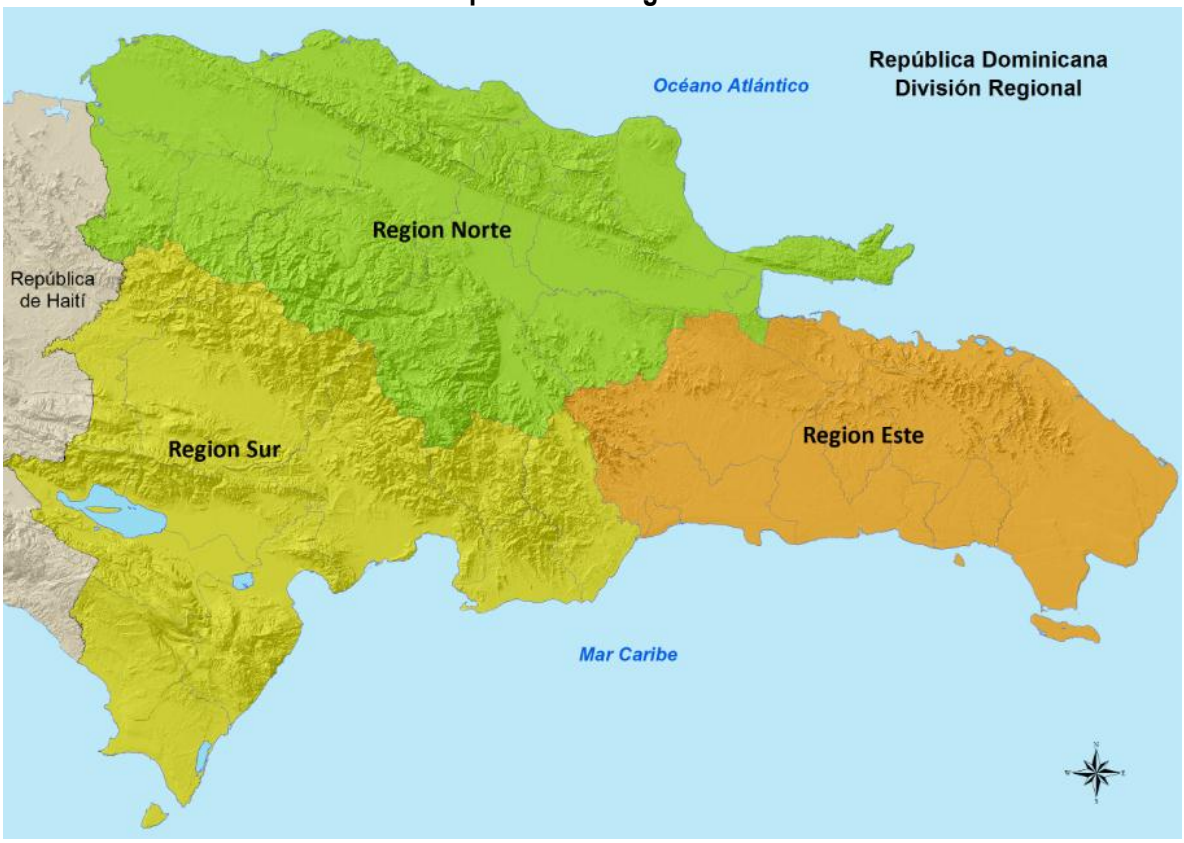
The approach selected by the Dominican Republic for establishing a reference scenario will be a national one. Nevertheless, taking into consideration the decision regarding this matter adopted at COP 16, as a transitory measure, the scale of work developed will be within sub-national scenarios. Thus it is more feasible to take local perspectives into account in the design of the sub-national reference levels, with broad participation from the community organizations, NGOs and private sector organizations that have a presence in the corresponding sub-national territory.

The portion of the island occupied by the Dominican Republic is only 48,198 km². Nevertheless, three regions stand out within its territory, with particular characteristics in each of them: the Eastern Region, the Northern Region and the South-Southwestern Region (see Figure 11). In each one of them, the geomorphological, rainfall and humidity aspects, and the water system, possess characteristics that differentiate them; as well, the soil use and vegetation cover activities are significantly different, and likewise the social and economic conditions present significant differences.

In the South-Southwestern Region one finds mostly conditions of low precipitation (average rainfall of 700 mm per year), and a predominantly poor population, while in the Northern Region the conditions are of highly productive soils and a very favorable precipitation regime (1,500 to 2,500 mm), which get reflected in a population with a higher income level. In turn, the Eastern Region presents high precipitation, similar to the Northern Region, but livelihoods are very much tied to the growing of sugarcane, livestock raising, and particularly tourism.

In light of the situation set out, the Dominican Republic proposes to adopt a strategy for the RLs at a sub-national scale, in this way having the flexibility to move forward at different rates in each of the regions, looking to provide national Reference Levels later.

FIGURE 11. Division of the Dominican Republic into Regions



SOURCE: Ministry of the Environment and Natural Resources (2013)

Some of the advantages that are considered in the adoption of sub-national REDD-plus mechanisms are as follows:

- It facilitates the participation of private sector actors;
- Reduction in bureaucratic risks;
- Preserving the right of the owners of the forests to decide under what conditions and when to join in;
- Minimizing the obstacles linked to government intervention as related to the distribution of incentives;
- The sub-national REDD-plus activities may begin at any time, independently of the other regions;
- Sub-national monitoring faces less uncertainty than national monitoring;
- Regional pride and tradition would inspire the communities to identify and buy into the objectives of protection and rehabilitation of the forests, with them likewise getting involved in the forest monitoring actions;

- Credits may be certified independently of the existence of excessive emissions in the rest of the country.

3.2.5 Define the applicable historical period for calculation of emissions

The forest cover situation of the Dominican Republic has been the object of concern on the part of Dominican society for several decades now. From the 1940s to 1980s an accelerated deforestation process affected the greater part of the forested areas of the country. At the end of the twentieth century, public opinion was of the view that the Dominican Republic was on the point of ending up with no forest cover.

In the study of forest cover undertaken by the Ministry of Environment (2011), it was found that the areas of greatest impact from deforestation are located on the southern flank of the Central Mountain Range *(Cordillera Central)* and in the southern part of the border area with Haiti. (See Figure 12.) As indicated in Figure 13, the most relevant current direct drivers are: forest fires, shifting cultivation, slash-and-burn for making charcoal, tourism, and urban development.

FIGURE 12. Areas of greatest impact on the tree cover of the Dominican Republic

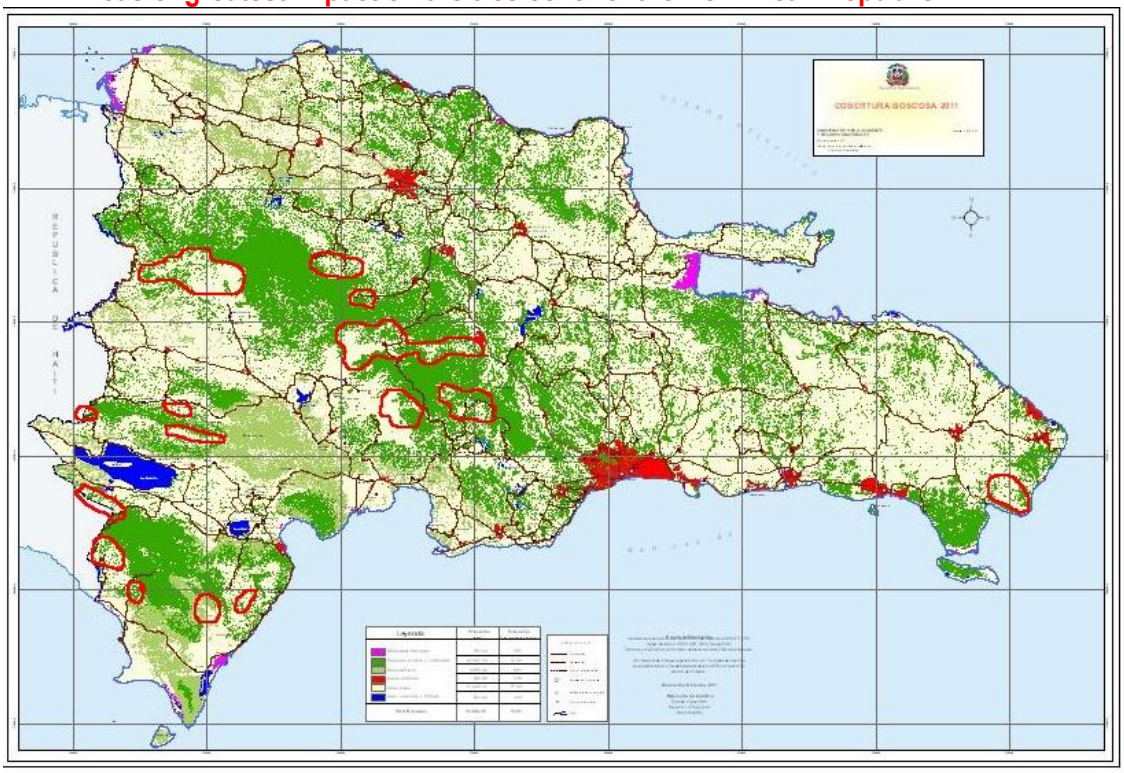
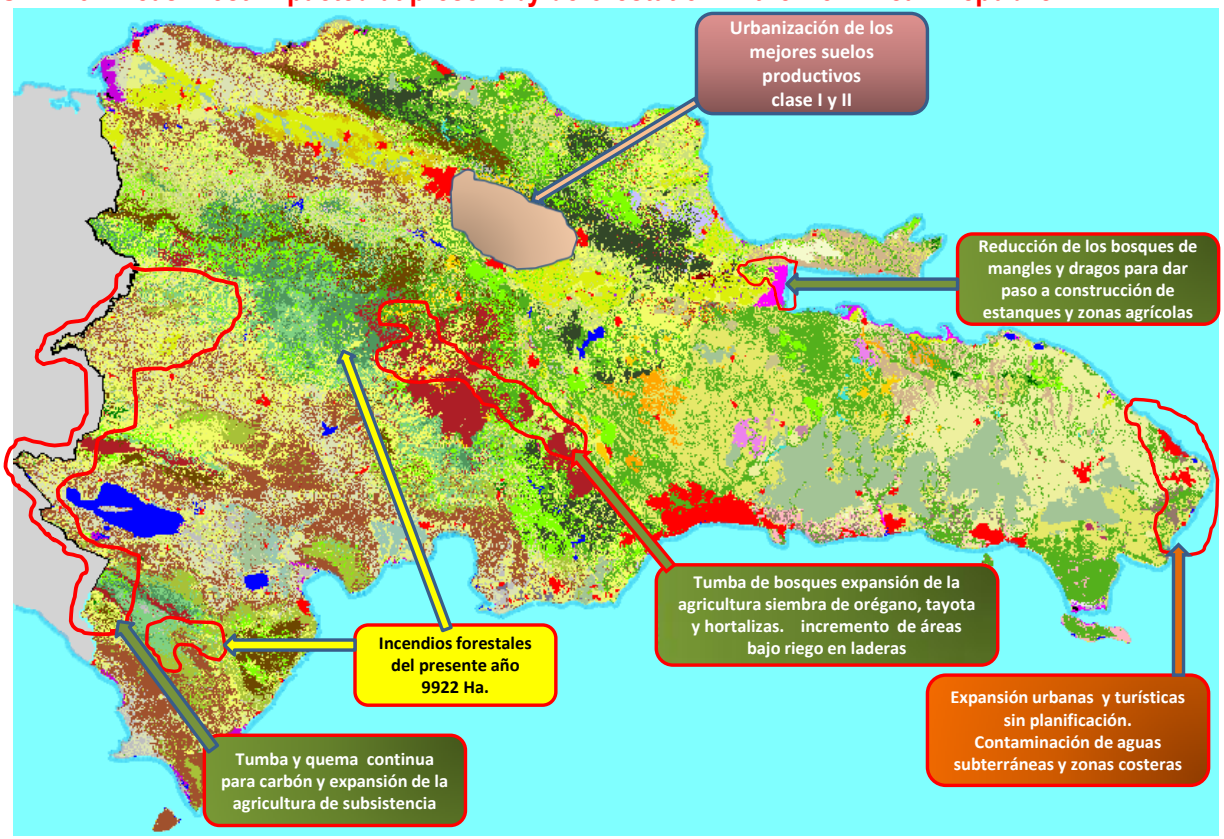


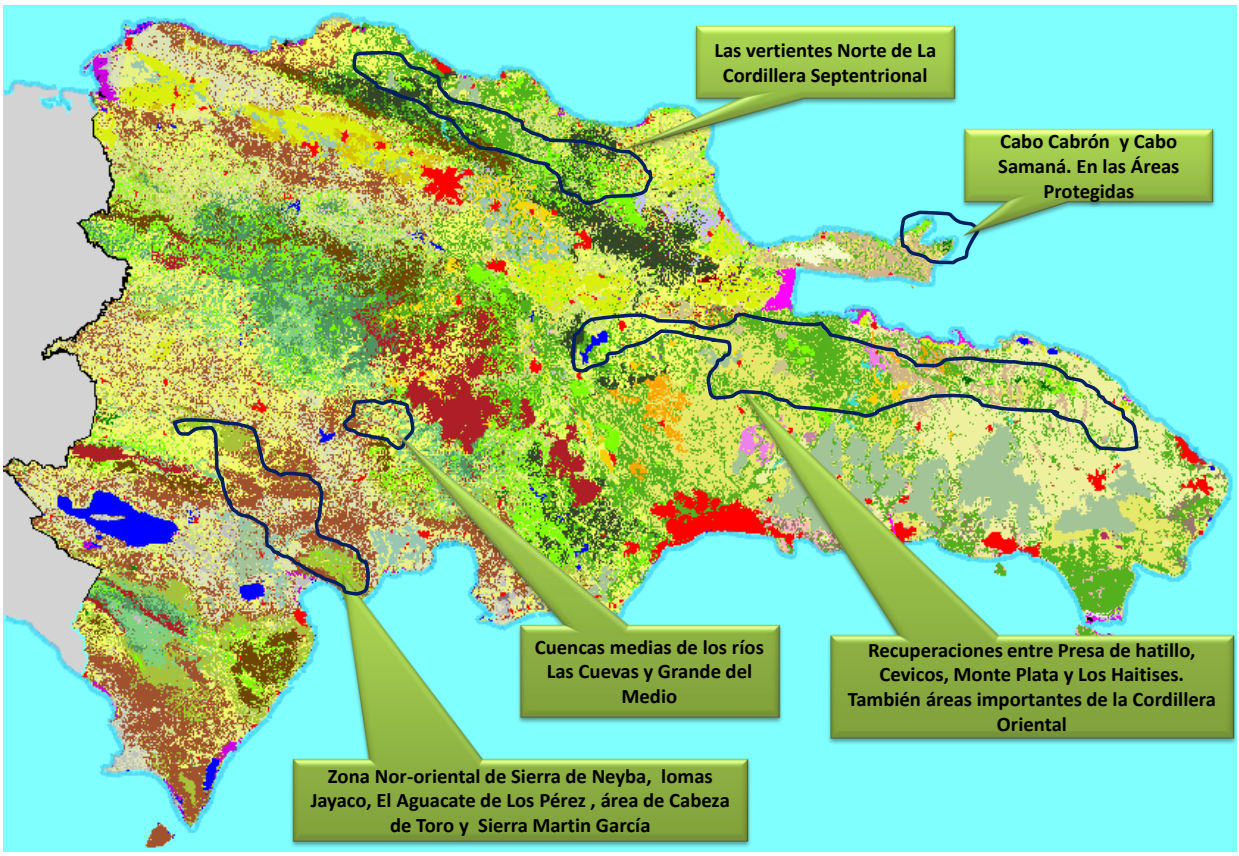
FIGURE 13. Areas most impacted at present by deforestation in the Dominican Republic



The most recent studies of the vegetation cover of our country indicate that a quantitative increase in forest cover has been recorded since 1996. Nonetheless, we are not certain that this growth is associated with a qualitative increase in the forest. In other words, we do not know whether there is a level of degradation being produced in the Dominican forest that greatly overshadows the already-mentioned increase in cover.

The areas where there is the clearest manifestation of out-and-out rehabilitation in the forests are on the northern slope of the Central Mountain Range, the Samaná peninsula, the Hatillo Dam, Mount Plata, Los Haitises, the Central Mountain Range, Neyba Mountain Range, Martín García Mountain Range and the middle river basins of the Las Cuevas and Río Grande al Medio rivers. (See Figure 14.)

FIGURE 14. Areas where forest rehabilitation is observed in 2011



Thus it is urgent to carry out monitoring and assessment, to the purposes of verifying what the quality of the regenerated forests has been in the last ten to 13 years, and of establishing strategies for management and conservation for the coming years.

The first Reconnaissance and Assessment of Natural Resources was that carried out by the Organization of American States (OAS) in 1967, for which panchromatic aerial photos were used, taken at a scale of 1:60,000 between the years 1958 and 1959. The results of this assessment allowed establishment of the life zones as potential areas for the kinds of vegetation, based on Holdridge's methodology (1947).

The United Nations (ONU), through the FAO, carried out the first national forest inventory in 1973, for which a mapping of the forests of the Dominican Republic was prepared, using aerial photos at a

scale of 1:20,000 from the years 1966–1968. This inventory was carried out basically in the mountain massifs, the Central Mountain Range, the Bahoruco Mountain Range, the Neiba Mountain Range, the Northern Mountain Range, the Cape of Barahona, Los Haitises and the area of the National Park of the East and Cape San Rafael.

On the other hand, between the years 1975 and 1979, CRIES carried out a land use survey through digital interpretation of Landsat MSS satellite imagery, used for the first time in the Dominican Republic. It was also the first time that the Geographic Information System (GIS) was used for this kind of studies – CRIES, versions 6.1 and 6.2 – for the storage and assessment of information on natural resources.

In the year 1984 the Directorate of Natural Resource Information (DIRENA), which answered at the time to the Ministry of State for Agriculture, carried out a new collection of aerial photos at a scale of 1:40,000, sponsored by the US International Development Agency (USAID), through the MARENA Project. Based on this source, the country's various land uses were mapped through photographic interpretation, at a scale of 1:50,000.

In 1996, with the advance of technology and with better sources becoming available, the first classification was carried out of use and cover in the country, using printed Landsat images corresponding to the 4-5-3 spectral bands, with application of tools from the ARC-INFO Software package, versions 3.42 and 3.5, for digital processing of the images, Erdas Imagine 8.2. In addition, Magellan 5000 satellite geopositioners (GPS) were used.

TABLE 17. Assessment of forest cover in the Dominican Republic (km²)

Tipo de bosque	FAO (1973)	DIRENA (1984)	DIRENA (1996)	Ministerio Ambiente (2003)	Ministerio Ambiente (2011)
Latifoliados	7,619	3,400	6,351	8,338	14,819
Coníferos	1,962	2,444	3,026	2,783	
Mixtos	1,385	-	-	-	-
Bosque de man	-	276	212	294	257
Bosque seco	-	6,660	3,677	4,438	4,051
TOTAL (km2)	10,966	12,781	13,266	15,853	19,128
% del país	**22.8%**	**26.5%**	**27.5%**	**32.9%**	**39.7%**

SOURCE: Ministry of the Environment and Natural Resources (2012)

Along with LandSat TM images from 1999 to 2001, this study was used as a basis on which an updating was carried out of the classification of use and cover, which was published in 2003. Even though this work also had as its objective the creation of a georeferenced database acting as an instrument for management of the renewable natural resources in the country, it likewise served as an analysis to compare forest cover changes.

More recently (2011), the Ministry of the Environment and Natural Resources approved the updating of the study on Land Use and Cover, 2011–2012, using its own funds. This study was divided into two stages: first the updating of the 2011 forest cover map, and in a second stage the updating of the general Uses and Forest Cover Map, 2011–2012. Only three categories of use were separated out: forest ecosystems, agro-livestock use, and other uses. LANDSAT 5 images from 2010. The sources used were ALOS PALSAR images for 2010, obtained from the SERVIR-NASA-CATHALAC Project, and as a complementary source, Google Earth images.

Due to the above, the Dominican Republic possesses statistics that permit establishment of a quantitative RL for two recent periods: the first from 1996 up to 2003, in which the cover saw an increase of 5.4%, or an annual average of 0.7%; and the second period, from 2003 until 2011, in which cover increased 6.8%, for an average of 0.8% per year.

Initially it was considered that the baseline reference year for the Dominican Republic should be 1996, a year in which an assessment was carried out of land cover and use, using Landsat 5 TM images with a resolution of 30 meters, which reported 27.5% of broadleaf, coniferous and dry forests.

3.2.6 Analyze the methodological options that the country has for defining its retrospective reference level:

Historical trend of deforestation in the past (linear extrapolation of historic forest cover, long-term averages).

Availability of chronological series (quality, comparability). Disadvantage: Static situation. Variables from the past do not guarantee future behavior. Multi-factorial relationship. Does not contemplate changes in national conditions.

Prospective: Projections of future deforestation (analytical, regression and simulation models); historical trend and assumptions for development in the drivers and sources of deforestation. Predict how deforestation may change in the future. Econometric models. Analysis of drivers and sources of deforestation and degradation. High information needs. Bio-geophysical and human factors. Spatially explicit (quantity and location of the change). Set targets for coverage. Complexity in management of tools. Depend on the quality of baseline data. Uncertainty in multi-sectoral development assumptions. National development plans. Projections for socio-economic growth.

Hybrid: Adjusted historical trend based on historical emissions. Development factor. Global additionality. Socio-economic indicators. Remaining forest surface area. Political negotiations.

3.3 Data compilation and analysis

The compilation and analysis of data takes in a set of elements that may be grouped into two aspects: activity data, and emission factors.

3.3.1 Estimate of "raw" deforestation/afforestation

The following activities should be undertaken in order to determine the rate of deforestation and planting:

- Develop a plan for collection of data by activity;
- Collect the existing data on land stratification/changes in land use, at national and sub-regional level;
- Collect the historical images for forest cover in the country (explicit spatial information on activity data on gross deforestation and gross afforestation);
- Interpret the images in the baseline reference year that gets established for creating the reference map for land cover, in compliance with the precision established;
- Collect social and economic information and that for planning of development, and for the variables explaining deforestation in the various regions, in order to apply econometric models for projecting deforestation to national and sub-national scale;
- Prepare maps of change in the land cover and carry out assessment of their precision.

3.3.2 Estimate of forest degradation

The following activities should be put into effect, to the purposes of determining the rates of forest degradation by kind of activity:

- Collect the existing data for the activities that provoke deforestation and degradation: rates of harvesting of timber, firewood collection, production of charcoal, extraction of non-timber products from the forest, trees outside of the forest;

- Compile and evaluate the existing data on volumes of timber and firewood extracted, regrowth rates, and carbon consumption;
- Determine the best methods for quantifying the areas of degradation and increase in reserves;
- Identify and fill in the data gaps and the information needed to establish the reference levels, and compile data on those gaps.

For estimating the changes in land use, carbon stocks and emissions/removals, it is necessary to have available a National Forest Monitoring System, and in particular it is necessary to have available the following tools/images and processes, for collection of the "activity data":

- GIS and remote sensing devices (satellite imaging), with the best possible resolution;
- Cross-cutting GIS platform throughout the procedure;
- Software for interpretation of the images: ARCGIS, IDRISI, ERDAS;
- For the IPCC field measurements/parameters), the "+Bosque" program is available;
- Data from forest inventories and permanent plots, above-ground biomass, below-ground biomass;
- Measurement of biophysical/meteorological and environmental variables: climatic variables (precipitation, temperature), disturbances (hurricanes, infestations and diseases);
- Impacts of laws, policies and programs on the changes in land use.

Landsat images will be used for the images for historical data, because they allow us to compare the current data, and their acquisition is low-cost. Nevertheless, for the conditions in the Dominican Republic, it is considered ideal to change to images with higher spatial resolution, like RapidEye.

At national level, the Directorate of Environmental Information of the Ministry of Environment has the following studies at its disposal: topographic maps at a scale of 1:50,000; the OAS (1967) forest cover map; the FAO National Forest Inventory (1973); CRIES, Land Use and Cover (1980); DIRENA, Land Use and Cover (1984); DIRENA-SEA, Land Use and Cover (1996); DIARENA, Land Use and Cover (2003); and DIARENA, Land Use and Cover (2011). In turn, the Department of Geomatics of the National Institute of Water Resources (INDRHI) has ortho-rectified aerial photographs at its disposal (INDRHI, 2004).

The following studies have been carried out at sub-national level, with funds from international cooperation programs and commissioned by various non-governmental organizations, in all cases with the participation of DIARENA: Changes in Land Use in the Western Region of the Dominican Republic in the Periods 1972/1973 and 1985/1986; Change in Land Use and Forest Cover in the Los Haitises National Park for the Period from 1988 to 2006; Annual Rate of Deforestation for the Artibonito Watershed for the Period from 1996 to 2010; Annual Rate of Deforestation for the Biosphere Reserve, for the Period from 1996 to 2010; Use and Cover in the Sierra Plan Area of Impact, for the Period from 1996 to June 2009; Use and Cover in the Upper Basin of the Río Yaque del Norte, for the Period from 2003 to 2010; and Land Use and Cover of the Municipality of Restauración in the Period from 2003 to 2010, amongst others.

Interpretation of the images from the year taken as the baseline will be carried out based on the historical data for forest cover. The estimates imply the quantifying of deforestation at national scale, using medium- and high-resolution sensing devices, for the periods 1995, 2000, 2005 and

2010, including review and adjustment of the multi-temporal analysis, as well as calibration of multi-criterion modeling and of the projections over the next 20 years.

3.3.4 Emission/Removal Factors

The following activities should be undertaken, to the purposes of determining the emission factors for deforestation and degradation of the forests:

- Define the accuracy/precision of the objectives and protocols for analysis of the information;
- Undertake the sampling design for the measurements of the carbon stocks;
- Collect carbon value data;
- Collect data on carbon gains and losses;
- Define the emission factors for deforestation and forest degradation;
- Current inventory of carbon and other co-benefits;
- Identification and mapping of drivers of deforestation and degradation;
- Modeling of the processes of future deforestation/degradation, based on trends;
- Simulation of deforestation/degradation scenarios related to implementation of the National REDD-plus Strategy;
- Correlation of simulation scenarios with the carbon inventories;
- Quantify the benefits of National REDD-plus Strategy implementation;
- Ensure coordination of the reference scenario with the monitoring system.

All these factors will be shared with the countries of the Central American area, to the purpose of exchanging experiences related to emission scenarios for deforestation and forest degradation.

3.4 Possible options for developing the RLs in the Dominican Republic

Taking into consideration the institutional and technical conditions and those of availability of information, the authors are of the view that implementation of RLs in the Dominican Republic should be applied in a multiphase way, and that they be updated over time. That this be progressive, as more information gets included from the databases for the stores.

It is a technical challenge to have available a good institutional arrangement, with the participation of the institutions that have an influence on land use change.

First stage. In this stage one will seek to strengthen capacity for monitoring of forest cover and the change in land use, and for estimating carbon stocks and emissions due to deforestation. Other preparatory activities will likewise be carried out, such as data collection and analysis, definition of the stages, and tests of different methodologies for estimating the RLs within the national and sub-national contexts.

A challenge exists in this part, due to the technical difficulties associated with calculation of the historical changes in land uses (availability of data, clouds, resolutions).

Second stage. In this stage, the reference deforestation scenarios will be calculated conservatively, based on the most widely accepted international methodologies, in line with the guidelines of the Intergovernmental Panel on Climate Change (IPCC).

In this stage the RLs can be periodically updated, initiating them with a value to be changed later by adjusting to more precise information. Firstly, above-ground biomass is included, then the RLs of the other stores is recalculated, incorporating new kinds of vegetation; initially the most highly wooded forests, then incorporating more information from mangroves or non-ligneous vascular species like palms or bamboo.

In this second phase, various methodologies will be implemented at sub-national scale, testing different REL options. One could apply econometric models for the selected REDD-plus pilot area (upper basin of the Río Yaque del Norte), to the purpose of projecting future deforestation trends. This will permit testing of the feasibility and reliability of these models, which it will be possible to subsequently replicate at sub-national level. In addition, exercises with high-resolution sensing devices (for example RapidEye) will be carried out for the pilot area, permitting assessment of the feasibility of their use at sub-national scale, to quantify deforestation and estimate forest degradation.

In any event, the improvements and changes in the methodologies should be consistent, and should ensure that the results are objectively comparable, in order to be able to reconstruct and compare between the historical trends generated by different methods.

Third stage. This is the level where the national targets will be, that will be defined as soon as the information is in hand that is necessary at national and international level (UNFCCC guidelines).

Lastly, some adjustments should be made, related to the "national circumstances" that may specify the proposed reference level, analyzing why certain circumstances and/or historical activities should not be taken into consideration as the basis for future trends concerning forest emissions. This is a highly political aspect, and one that has to do with the dynamic of the country's governability and its development needs. One may take as a point of reference for this last topic the National Development Strategy, 2011–2030, recently converted into law, and the Economic Development Plan compatible with climate change.

3.5 Institutional arrangements for the REDD-plus RLs in the Dominican Republic

It is necessary to have available a good institutional arrangement for the RLs, in which synergies and links may be established between the public and private institutions that have influence on the change in land use. In the following Table various of the main institutions are set out with which links will be established that permit the RLs to work.

Table 18. Institutions and Links to Reference Levels in the Dominican Republic

No.	Institución	Vinculación con el Nivel de Referencia
1	Cámara Forestal Dominicana (CFD)	Producción e industria forestal
2	Centro de Estudios Urbanos y Regionales (CEUR)	Estudios y capacitación sobre los recursos naturales
3	Centro para el Desarrollo Agropecuario y Forestal	Estudios y capacitación sobre los recursos naturales
4	Consejo Nac. de Investigaciones Agrop. y Forestales (CONIAF)	Promoción de la Investigación agroforestal
5	Consorcio Ambiental Dominicano (CAD)	Gestion de las Areas protegidas
6	Dirección General de Minería	Politica minera
7	Direccion General de Ordenamiento Territorial (MEPyD)	Ordenamiento territorial
8	Enda Dominicana	Manejo Forestal y corredor biologico
9	Fondo Nacional del Medio Ambiente y Recursos Naturales	Fomento de la conservación de bosque
10	Fundacion Progressio	Gestion de las Areas protegidas
11	Fundacion Sur Futuro	Gestion territorial a nivel de cuenca
12	Instituto Cartografico Militar	Gestión de información cartografica y geográfica
13	Instituto Domin. de Investigaciones Agrop. y Forestal (IDIAF)	Promoción de la Investigación agroforestal
14	Instituto Geográico Univesitario	Gestión de información cartografica y geográfica
15	Instituto Nacional de Recursos Hidráulicos	Gestión del agua de riego
16	Instituto Superior de Agricultura (ISA)	Educación e investigación
17	Jardín Botánico Nacional (JBN)	Estudios poblacionale de la flora
18	Junta Agroempresarial Dominicana	Negocios agricolas
19	Ministerio Ambiente Dirección Información Ambiental	Politicas, estrategias y control del uso de los recursos naturales
20	Ministerio de Agricultura	Politicas y fomento de la agropecuaria
21	Oficina Nacional de Meteorologia	Información meteorológica y climatica
22	Plan Sierra	ONGs gestion territorial local
23	PRONATURA	ONGs gestion territorial local
24	Universidad Nacional Pedro Henríquez Ureña, UNPHU	Educación e investigación

TABLE 19. Budget for Component 3 – Reference Levels

Componente 3. Niveles de Referencia			Miles de US$				
Componente	**Actividad principal**	**Subactividad**	**2013**	**2014**	**2015**	**2016**	**Total**
Componente 3. Niveles de Referencia	3.1. Fortalecimiento institucional	Diseño e implementar plan de capacitación de técnicos nacionales en los diversos aspectos relativos a los niveles de	20	20	20	20	**80**
		Crear una base de datos de información relativas a la estimación de carbono y construcción de niveles de referencia en el país	5	10	10	5	**30**
		Estableciendo de acuerdos y vínculos con instituciones publicas y privadas, así como con universidades, a nivel nacional y subnacional, e internacional	0	10	10	10	**30**
		Coordinación del proceso de construcción de NR	5	10	10	10	**35**
		Apoyar el desarrollo de capacidades en el nivel universitario para ofrecer diplomados en monitoreo forestal	5	10	10	10	**35**
	3.2. Aspectos conceptuales y estratégicos claves	Adoptar la definición de bosques mas conveniente para el país	10	10	0	0	**20**
		Determinar el alcance de las actividades a ser incluidas en NR	5	5	0	0	**10**
		Definición de los depósitos de carbono y GEIs incluidos en el NR	5	5	0	0	**10**
		Determinar la escala (nacional o subnacional)	5	10	0	0	**15**
		Definir el periodo histórico aplicable para el calculo de emisiones	0	20	10	0	**30**
		Analizar las opciones metodológicas que tiene el país	5	10	5	0	**20**
	3.3. Compilación y análisis de datos	Estimación de la deforestación bruta / forestación	0	20	20	10	**50**
		Estimación de la degradación de los bosques	0	15	15	15	**45**
		Desarrollar el diseño de muestreo para las mediciones de las reservas de carbono	0	20	20	20	**60**
		Recopilar datos de valores de carbono, y sobre las ganancias y pérdidas del mismo	10	20	20	20	**70**
		Definir los factores de emisión para la deforestación y para la degradación de los bosques	0	10	10	10	**30**
		Inventarios actual de carbono y otros co-beneficios	10	15	15	10	**50**
		Identificación y mapeo de agentes de deforestación y degradación	0	10	10	10	**30**
		Modelación de los procesos de deforestación / degradación futura con base en tendencias	0	15	15	15	**45**
		Simulación de escenarios de deforestación/degradación y correlación de esos escenarios de simulación con los	0	15	15	15	**45**
		Cuantificar los beneficios de la implementación de REDD+.	0	20	20	20	**60**
		TOTAL	**85**	**280**	**235**	**200**	**800**
		Gobierno Dominicano	17	57	48	41	164
		FCPF (Banco Mundial)	46	153	128	109	436
		Programa Regional REDD/CCAD/GIZ	21	70	59	50	200

COMPONENT 4: DESIGN OF NATIONAL FOREST MONITORING AND SAFEGUARDS INFORMATION SYSTEMS

COMPONENT 4a: NATIONAL FOREST MONITORING SYSTEM

Standard 4a the R-PP text needs to meet for this component:

National forest monitoring system

The R-PP provides a proposal and workplan for the initial design, on a stepwise basis, of an integrated monitoring system of measurement, reporting and verification of changes in deforestation and/or forest degradation, and forest enhancement activities. The system design should include early ideas on enhancing country capability (either within an integrated system, or in coordinated activities) to monitor emissions reductions and enhancement of forest carbon stocks, and to assess the impacts of the REDD-plus strategy in the forest sector. The R-PP should describe major data requirements, capacity requirements, how transparency of the monitoring system and data will be addressed, early ideas on which methods to use, and how the system would engage participatory approaches to monitoring by forest–dependent indigenous peoples and other forest dwellers. The R-PP should also address the potential for independent monitoring and review, involving civil society and other stakeholders, and how findings would be fed back to improve REDD-plus implementation. The proposal should present early ideas on how the system could evolve into a mature REDD-plus monitoring system with the full set of capabilities. (FCPF recognizes that key international policy decisions may affect this component, so a staged approach may be useful. The R-PP states what early activities are proposed.)

Introduction

In accordance with Decision 4/COP15 of the United Nations Framework Convention on Climate Change, the countries that wish to participate in a mechanism for Reducing Emissions from Deforestation and Forest Degradation (REDD-plus) should, in accordance with their national circumstances and capacities, establish national forest monitoring systems that are robust and transparent, and that use a combination of remote sensing systems and forest carbon inventories based on field measurements in order to estimate GHG emissions and removals related to human activities in the forests, the forest carbon stocks, the changes in the forest carbon stocks, and to changes in the surface area of forest.

Thus, in order to be able to implement REDD-plus initiatives, the Dominican Republic should ensure the monitoring of GHG emissions associated with the forests, and have at its disposal the information and capacities needed for preparation of reports to the UNFCCC.

In general terms, in order to monitor emissions due to forest deforestation and degradation, one should periodically measure the following two variables:

- National forest cover, differentiating by types of forests (activity data);
- The carbon intensities of the various types of forest (emission factors).

Field measurements will be necessary in order to measure the carbon, and in order to check the state of the forests. There are four essential variables that the forest monitoring system should quantify: the area affected by deforestation and degradation; the density of carbon stocks by unit of area; information on compliance with safeguards and co-benefits; and monitoring of the activities of the REDD-plus Strategy.

Starting with generation of the basic background for development both of the reference levels as well as of the country's National Forest Monitoring System, summarized basically in the needs for preparation of cartography, inventories and allometric functions for the current situation (baseline), it will be possible to start a systematic process of monitoring that looks to visualize and quantify the changes in land use and in the carbon stock provoked by implementation of the country's REDD-plus Strategy. This basically involves the periodic updating of the core components for quantification (cartography, inventories and allometric functions).

It is fundamental to recognize that the technical requirements and costs associated with periodically generating the inputs constitute a relevant barrier at the time of proposal of more or less precise monitoring systems. Therefore the Dominican Republic, in conjunction with the REDD-CCAD-GIZ Program, has been working since the year 2012 on automating the greater part of the processes associated with generation of the cartography, and in addition on simplification of the methods for capture and processing of field data, both for inventories as well as in order to cover the needs of allometric functions in the country, so as to substantially reduce the costs of monitoring and shorten the updating periods for the information that is to be reported.

The methodological approach presented in Component 3 may act as a basis for addressing the transparency and participative character of monitoring and presentation of reports for REDD-plus. The unrestricted linkage in technical and implementation terms between Component 3 and Component 4 implies that the participative components in both components will have necessary and sufficient actors available to them to achieve transparent results endorsed by the whole of those directly and indirectly involved.

The greater part of the inputs for implementation of Component 3 is an integral part of development of the National Forest Monitoring System, for which reason it is assumed that the structures for participation in the design, implementation and operation of the monitoring system will be adopted from the reference levels component, and complemented according to the specific needs that get identified at the time.

Component 4a will address the bases for designing the components of the forest monitoring system related to quantification of the emissions from the five REDD-plus activities (Decisions 4/CP.15 and CP.16): Reducing emissions from deforestation; reducing emissions from forest degradation, conservation of carbon stocks, sustainable management of the forests, and increase in carbon stocks. Component 4b envisages the design of an information system for multiple benefits, governance, safeguards, and other impacts.

4a.1 Relevant stakeholders

The key stakeholders for the functioning of the national forest monitoring system in the Dominican Republic are as follows:

Ministry of the Environment and Natural Resources

This is the lead agency for planning, coordinating, supervising and overseeing the activities related to national environment and natural resource policy. Amongst other purposes, it seeks to strengthen the policy framework for management of the forests, and to consolidate the institutional approach that incorporates the forest sector into environmental administration and promote its development, as well as overseeing its harvesting and conservation. It is the main actor for application and regulation of the forest regime, and for administration and management of the protected areas – these being actions that it carries out through the Vice-Ministry for Forest Resources and the Vice-Ministry for Protected Areas and Biodiversity respectively. It is the body responsible for communications to the UNFCCC regarding GHGs, with these being activities that the Vice-Ministry for Environmental Management carries out, through the Directorate for Climate Change and the Clean Development Mechanism. The Ministry also has the Directorate of Environmental Information and Education, which carries out mappings of forest cover and land use, as well as the Vice-Ministry for Planning and Development, where the Department of Environmental Statistics operates.

Topic-specific support bodies

- Database: Vice-Ministry for Forest Resources, Directorate of Planning and Development, Directorate of Environmental Information and Education, National Statistics Office (ONE) and National Meteorology Office (ONAMET).
- Baseline for cover: Ministry of Environment, Military Cartographic Institute (ICM), National Institute of Water Resources (INDRHI), University Geographical Institute (IGU), national NGOs, CBOs, Dominican Chamber of Forests (CFD), and international cooperation agencies.
- Baseline for biomass/carbon: Ministry of the Environment, ICM, INDHRI, FAO, CEDAF, CONIAF, IDIAF, National Council for Climate Change and the Clean Development Mechanism, FEPROBOSUR, ISA, and UAFAM.

4a.2 Existing information

The Dominican Republic has not yet developed the forest resource monitoring and fundamental research capabilities required in order to participate in REDD-plus. The information available for activity data, emission factors and safeguards does not reach the level required by the national forest monitoring system for REDD-plus. The information available in relation to deforestation and degradation is very limited for the task of designing and evaluating policies appropriate to REDD-plus.

The existing information is broad though dispersed, and not necessarily up to date. Even when there is some valuable information in the country, there is uncertainty as regards its reliability. Likewise, there are limitations with respect to knowledge and dissemination of the existing information, due to weak inter-institutional relations and the lack of two-way coordination of information.

According to the National Consultation Workshop on “Inputs to the Design and Implementation of a National Forest Monitoring System in the context of REDD-plus” held in Santo Domingo,

Dominican Republic on June 2 and 3, 2011, the following information is available for development of the national forest monitoring system in the Dominican Republic:

- Cover Map, 1967
- National Forest Inventory, 1973
- Land Cover and Land Use Map, 1980
- Land Cover and Land Use Map, 1984
- Land Cover and Land Use Map, 1996
- Land Cover and Land Use Map, 2003
- Land Cover and Land Use Map, 2011
- Up-to-date use maps for river basins and regions
- Atlas of Environment and Natural Resources (2003, 2011)
- Database of 850 forest management plans on private farms and in natural *Pinus occidentalis* forests, confirming changes in tree farms, in Excel
- Charcoal production data
- Records of forest plantations established, and planting certificates
- Study of drivers of deforestation
- Register of forest fires that have occurred in the country since 1962
- Register of permits for tree-cutting and land clearances for miscellaneous purposes
- Table of volume and of growth curve of *Pinus occidentalis*, Sierra Plan
- Equations for estimating volume for the *Pinus occidentalis* species (Cuevas-Gil, 1986; Díaz, 1990)
- Equation for estimating volume for the *Pinus caribaea var. hondurensis* species (ISA)
- Equation for estimating volume of the *Swietenia mahagony* species (Esc. Ambiental, 2008)
- Equation for volume for dry forest (GTZ/INDESUR, 1990)
- Dry forest inventory (GTZ/INDESUR, 1989)
- Forest inventory in the upper basin of the Río Yaque del Norte (UAFAM, 2008)
- Georeferenced tracts in natural forests and plantations in the upper basin of the Río Yaque del Norte
- CO_2 emissions due to the use of firewood to roast pig (Mercedes, 2010)
- GHG Report for DECCC Project
- Daily reports of hotspots (forest indicators)
- Annual Reports of the Ministry
- Management plans as information source
- The Chamber of Forests has an information base available on the topic
- Human Development Report
- Study by the Ministry of Planning on the poverty line
- IPCC Good Practice Guidance Manual
- National Communications
- Current or already implemented projects that have information or reports on their activities
- Information on existing forest assessments

The inventories and studies of flora carried out on Española island (shared by the Dominican Republic and the Republic of Haiti) report 201 botanical families, with 1.284 genera and some 6,000 vascular species. Of these, it is estimated that around 2,050 are endemic species (equivalent to 34%), and some 1,100 are tree species (Mejía, 2006; Ovalles, 2012).

Only one forest inventory has been carried out in the Dominican Republic (FAO, 1973), which did not encompass the entire national territory… The rest are studies of vegetation cover with approximations of forest cover, using Landsat images. On the other hand, the first allometric relationships to which there is reference made in the country were made by FAO (1973). According to Ovalles (2012), some allometric equations have been drawn up in the Dominican Republic, just to determine the tree trunk volume of certain species, mainly for the creole pine species *(Pinus occidentalis),* and in lesser proportion, creole mahagony *(Swietenia mahagony)* and Honduran pine *(Pinus caribaea var. hondurensis).* Indeed, Gil and Cuevas (1986) determined a volume equation for creole pine *(Pinus occidentalis)* for the region of La Sierra, in San José de las Matas. Díaz (1991) determined another volume equation for creole pine in the area of La Celestina, by means of volume calculations for 120 trees. Montalvo et al. (2001) determined an equation for the calculation of volume of the tree for *Pinus occidentalis* in the Sierra Plan.

In 1990 the Institute for Development of the Southwest (INDESUR), together with the German Agency for Technical Cooperation (GTZ), and the Federation of Southwest Dry Forest Producers (FEPROBOSUR), developed the first dry forest inventory, in which four volume equations were developed. Each equation represents a group of species of high phenotype similarity. To this end, 2,300 trees were cut down belonging to the 27 species most frequently encountered in the forest, with a DKH of from 2 up to 14 cm, and another 800 trees for the 30 remaining species. The results encountered were as follows:

- Group 1: Made up of mesquite, exserted chione, poisonwood and rosewood. The common equation is $V= (0.006606)+ (0.2385) \times D$, with an R^2 of 0.93
- Group 2: Made up of moss tree, guaiac, candlewood, white drypetes, glossy bunchosia, blackbead, greenheart ebony, poison ivy, redgal, caja and mustardshrub caper. The resulting equation is: $V= (0.001165)+ (0.1594) \times D$ and the calculated R^2 is 0.91
- Group 3: The species are algodoncillo, mesquite, hazeleaf croton, carga agua, dog caper, West Indian boxwood, glandular bunchosia and hairy leadtree, the common equation of which is: $V= (0.003126)+ (0.1356) \times D$ with an R^2 of 0.98.
- Group 4: This group brings together gumbo-limbo, cuspidate nectandra, amanacle, cherry tree, narrowleaf acacia, red powderpuff, bertero albizia, colorao, purple nutsedge, dulce abeja, West Indian Satinwood, myrtle tree, ackee, ribbed seagrape, fig, malaguetilla, gaita, Brazilwood, roughbark lignumvitae, twocapsule senna, shiny oysterwood, white drypetes, roseta, black leadwood, cacao rojo, Santo Domingo mayten, cominia allophylus, laurelleaf sapium, red calliandra, tizón, American muskwood and common lignumvitae.

Implementation of this national forest monitoring is to begin on the basis of existing capacities, which are summarized as follows:

- The Directorate of Information on Environment and Natural Resources (DIARENA) of the Ministry of the Environment and Natural Resources has human resources and a geographic information system, with information obtained on the change in forest cover through remote sensing devices, and has available a land cover and land use map for 1984, 1996, 2003 and 2011.
- The Forest Monitoring Unit was created by ministerial decision in September 2012, within the Ministry of the Environment and Natural Resources. Its main function is suitable coordination of the design and

execution of the National Forest Inventory (NFI), carrying out the technical audit of said NFI, and organizing future monitoring.

- As well, it was proposed by means of the same decision to create a National Forest Monitoring System, permitting the putting into effect, in a transparent and consistent way, of the estimates for CO_2 emissions coming from the loss of forests and forest degradation, and making possible the monitoring of the GHG emissions related to deforestation and forest degradation, as well as assessing the health of the forest, water regulation, biodiversity, sustainable forest management and the timber and non-timber products from the forest.
- The design and carrying out are contemplated of a multi-purpose national forest inventory, with the support of the Regional REDD-plus/CCAD/GIZ Program, which will be the main basis for decision-making within the framework of the Dominican Republic's environmental policy.
- The existence of two privately-administered scientific reserves (Loma Quita Espuela and Loma Guaconejo), in which a carbon inventory has been carried out, using an easily-replicated method. This experience may be the point of departure for the generation of emission factors.

4a.3 Information Gaps

As a result of the National Consultation Workshop that has already been mentioned, the following are indicated as restrictions on access to the information: slowness in accessing the information, its cost, the weak culture (and centralism) of interchange, as well as the lack of inter-institutional coordination, the lack of metadata, and the shortcomings in dissemination and communication of the research data and reports. These are among the most common causes indicated in the workshops. As well, other limitations are as follows:

- Economic limitations in acquiring good-resolution images;
- Low availability of human resources, and few incentives available to staff;
- Little institutional support and financial resource availability;
- Limitations in equipment and software;
- The country's cartographic base (topographic sheets) is not up to date;
- The country's topographic sheets are not up to date;
- Lack of appropriate training;
- Incompatibility of methodologies and sources;
- Fixed tracts are missing for the national forest monitoring system;
- Qualified technical staff is lacking for forest monitoring;
- Production of biomass and the carbon fraction, by forest type;
- Equation for estimating biomass, by species;
- Shortfall in economic resources for research;
- Technical–scientific information is lacking;
- Geospatial location of all of the public or private nurseries and/or greenhouses that produce forest plants, be they conifers or broadleaf species, and generating a database as to how to quantify the quantity produced per year;
- Definition of the forest tenure regime;
- The growth rate of native species and kinds of forests is unknown;
- Studies of natural regeneration following forest fires;
- Little systematization of the information;

- Lack of an information bank;
- Weak inter-institutional communication.

In order to implement the National Forest Monitoring System, capacity should be built on a priority basis to permit:

- Having tools/images and processes available for the collection of activity data and emission factors;
- Updating topographic sheets;
- Reconciling national/sub-national methodologies and information sources;
- Establishing permanent sampling tracts;
- Generating reliable data permitting the estimate of biomass and carbon fraction by forest type, through the building of allometric equations;
- Creating an information bank permitting its publication through a geo-portal;
- Improving scientific knowledge regarding the impacts of climate change on the carbon stocks, on the various environmental services, and on the natural fire regimes of the Dominican forests.
- Developing biogeographical models at appropriate scales in order to reduce uncertainty in the forecasting of the behavior of the Dominican forests, in the face of the potential prolonging of the periods of drought and an increase in temperature;
- Establishing allometric relationships for the whole of the forests, or of the country's tree species, in order to facilitate carbon measurements.

4a.4 Institutional arrangements for implementation of the national forest monitoring system

A structure is recommended that would have units within the Ministry of the Environment and Natural Resources with differentiated responsibilities. The makeup of the Commission on Forest Monitoring, established by Resolution Nº 20, the main function of which is to coordinate the planning of the National Forest Inventory (the collection and systematization of the information compiled and surveyed). It is responsible for the technical audit of the National Forest Inventory, supervising the field work with measurements, assessments and evaluation. This Commission will be made up as follows:

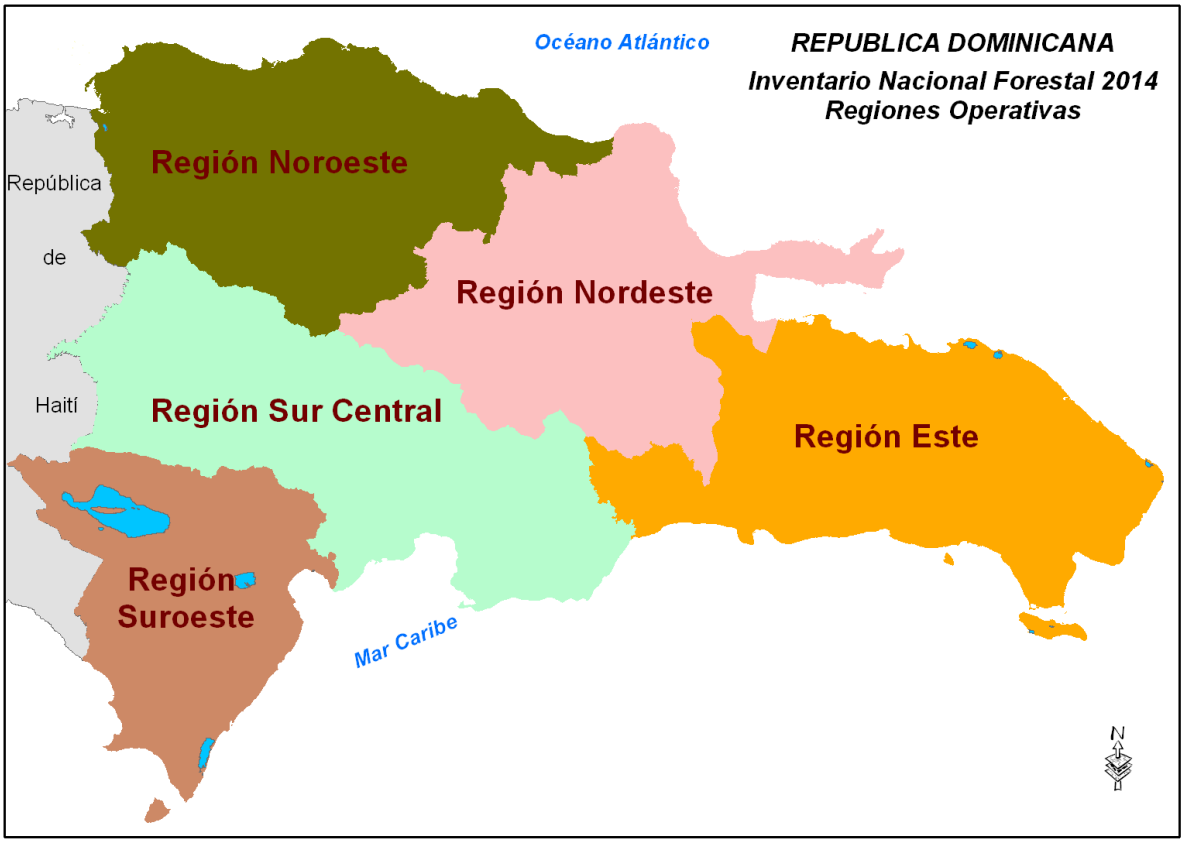
- The Minister of the Environment and Natural Resources, who will chair it;
- The Vice-Minister for Forest Resources;
- The Vice-Minister for Protected Areas and Biodiversity;
- The Vice-Minister for Environmental Management;
- The Director of Planning and Programming;
- The Director of Environmental Information and Education;
- The Director of Public Participation.

The Forest Monitoring Unit (UMF) within the Vice-Ministry for Forest Resources will be responsible for carrying out the National Forest Inventory. The latter will be carried out by means of contracting national and international consultancies, while the UMF will see to its technical audit.

There will be a national coordinator for planning of the field work for the National Forest Inventory (NFI), with responsibility for supervising, supporting and ensuring execution of all of the NFI

processes. It will have five regional operations centers (Northwest, Northeast, South–South, Southwest and East), which could be housed in some of the 37 provincial and municipal offices of the Ministry of the Environment and Natural Resources (such as Barahona, San Juan, La Romana and Duarte), which will also serve to support execution of the NFI.

FIGURE 15. Territorial Division of the National Forest Inventory, 2013

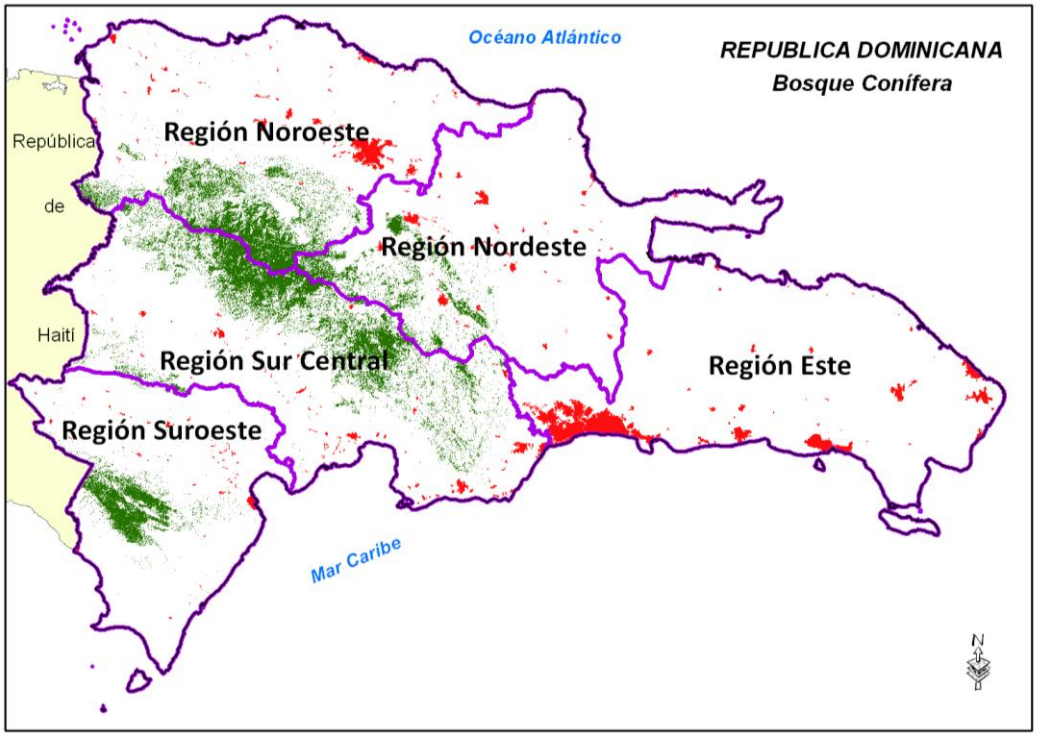


SOURCE: Ministry of the Environment and Natural Resources (2013)

Each center will have a director of operations assigned to it, who will be responsible for planning and coordinating the operations of his/her region, with the field crews or with the representative of the sub-contracted firm. He/she will also be responsible for coordinating the technical audits. The firms chosen for this field phase will be pre-qualified and trained in all aspects of the NFI, although they should already have staff that is experienced in forest inventories. In addition, each company will sub-contract experts in the dendrological identification of forest species (forest experts, biologists and/or botanists).

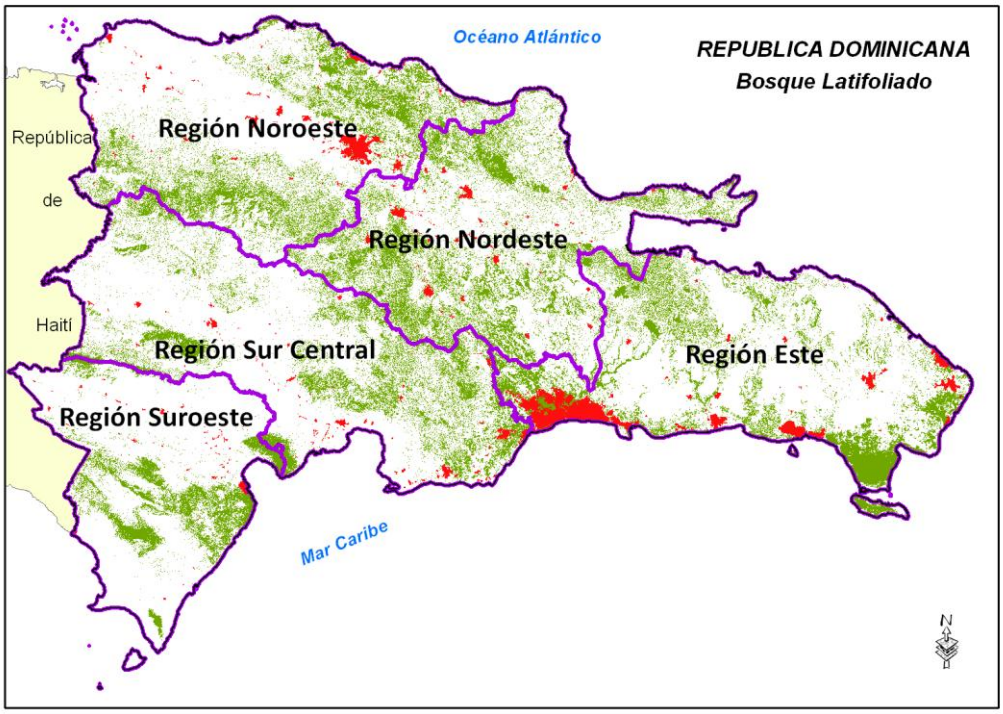
We can see in Figures 16 to 20 the distribution of the main types of forests in the Dominican Republic, by operational regions for the National Forest Inventory, with use of 2011 Landsat images.

FIGURE 16. Distribution of coniferous forest in the regions of the National Forest Inventory



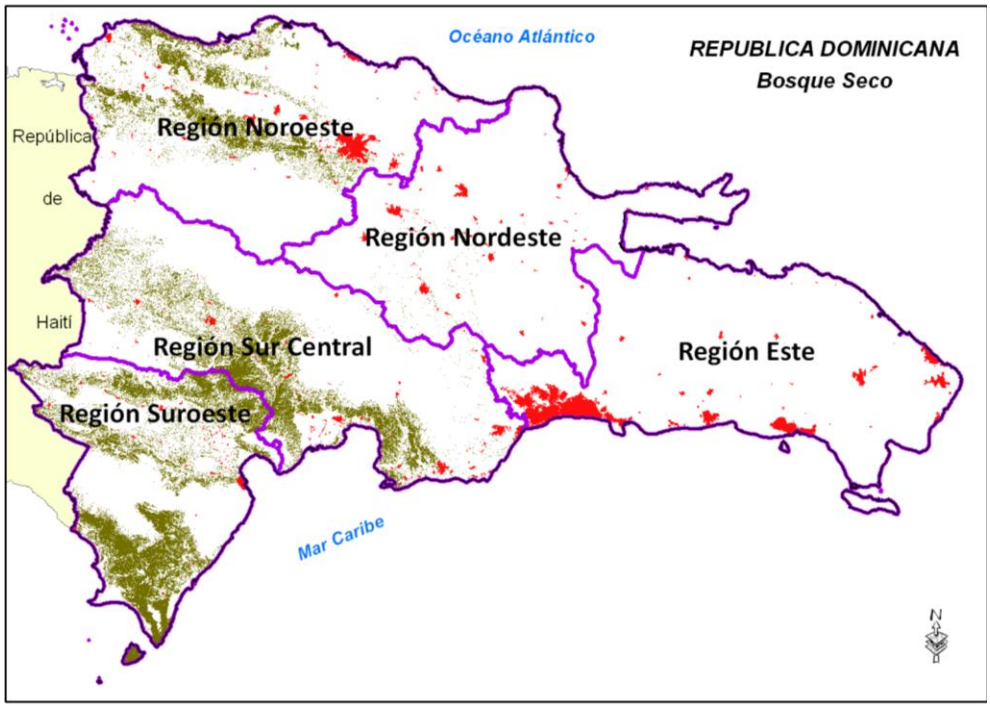
SOURCE: Ministry of the Environment and Natural Resources (2013)

FIGURE 17. Distribution of broadleaf forest in the regions of the National Forest Inventory



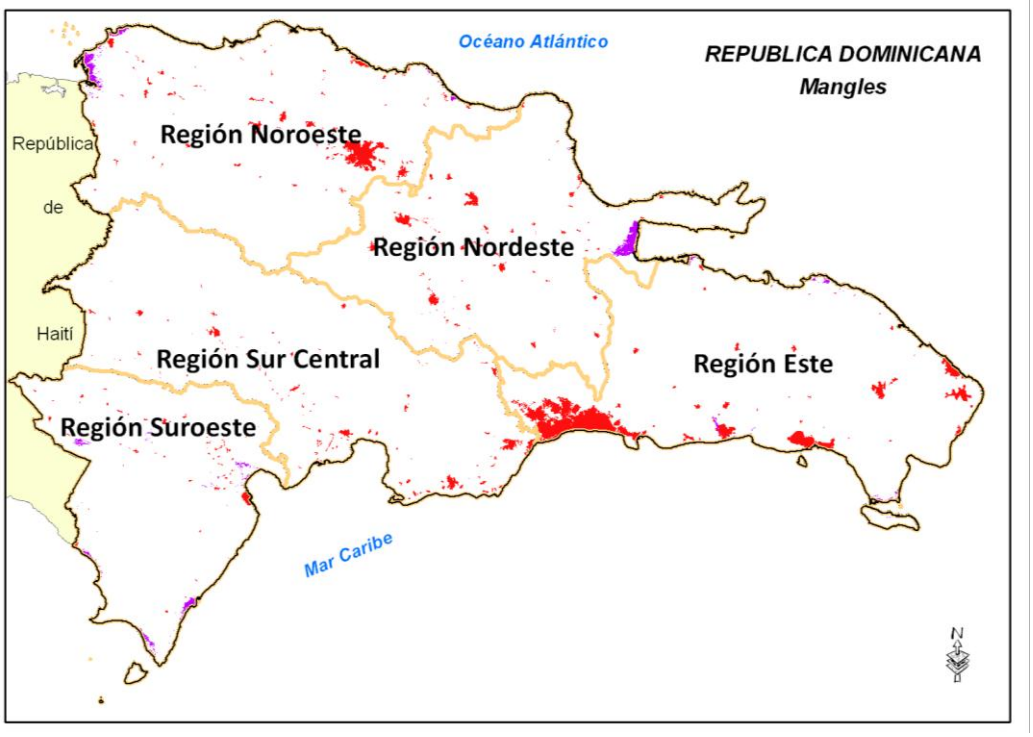
SOURCE: Ministry of the Environment and Natural Resources (2013)

FIGURE 18. Distribution of dry forest in the regions of the National Forest Inventory



SOURCE: Ministry of the Environment and Natural Resources (2013)

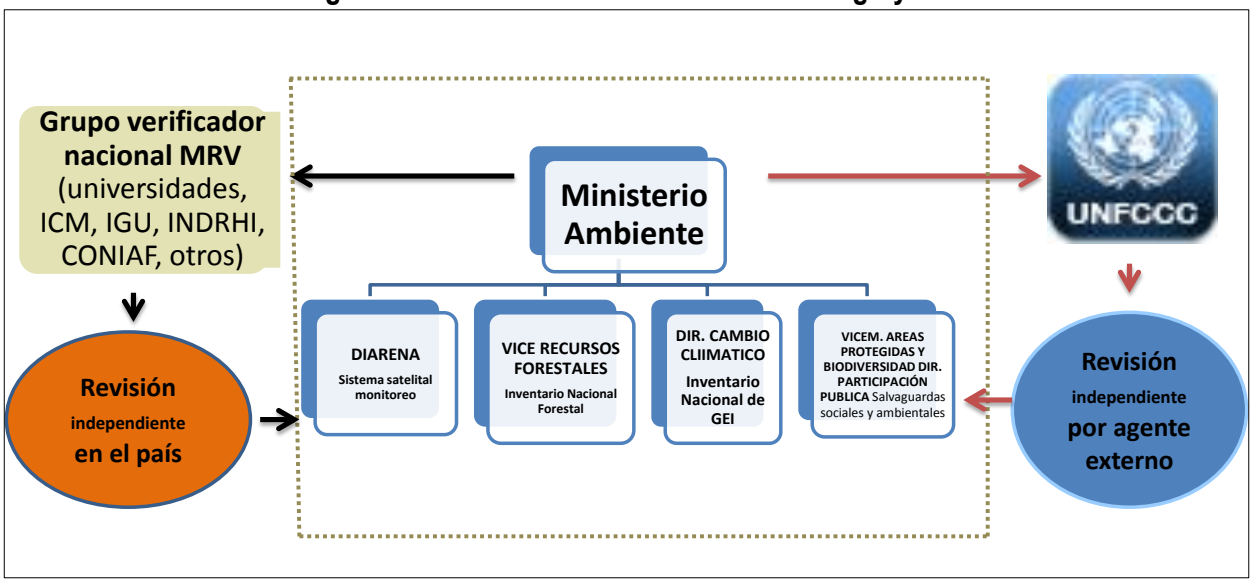
FIGURE 19. Distribution of mangrove forest in the regions of the National Forest Inventory



SOURCE: Ministry of the Environment and Natural Resources (2013)

On the other hand, the Directorate of Information on Environment and Natural Resources (DIARENA) will continue with its duties of developing the monitoring by use of remote sensing devices, while the Directorate of Climate Change, as part of the Vice-Ministry of Environmental Management, is responsible for defining procedures and methodologies for estimating greenhouse gases. The Directorate of Biodiversity within the Vice-Ministry for Forest Resources, and the Directorate of Public Participation, will accompany the monitoring of the social and environmental safeguards. On the other hand, a national verification group for the national forest monitoring system will be constituted, which will undertake the independent national audit.

FIGURE 20. Institutional arrangement of the Dominican Forest Monitoring System



SOURCE: Adapted from the Mexico–Norway Project "Reinforcing REDD-plus Readiness in Mexico and Enabling South-South Cooperation"

The sustainability of the processes of building of a reference level, and design of a national forest monitoring and safeguards system, depends on institutionalization as follows:

1. The Forest Monitoring Unit (UMF) within the Vice-Ministry for Forest Resources will be responsible for carrying out the National Forest Inventory and the future monitoring of the permanent plots that get established in order to keep the NFI up to date;
2. Carrying out monitoring of the forest resources, via remote sensing devices, through the Directorate of Information on Environment and Natural Resources (DIARENA);
3. Preparation of the inventory of greenhouse gases (GHG), to be undertaken by the Directorate of Climate Change;
4. System for monitoring of multiple benefits (biodiversity, social aspects, others);
5. Constituting of a national verification group for the national forest monitoring system, for REDD-plus.

4a.5 Characteristics of the proposed national forest monitoring system

A detailed analysis of the 1996, 2003 and 2011 studies of cover, together with the field data and evidence, suggests that in all cases losses of forest cover are occurring in the country, which contributes substantially to GHG emissions. The key factors that drive the loss of forest cover are the change in land use due to agricultural slash-and-burn practices, plus the development of infrastructure, deforestation for the production of charcoal from firewood, and forest fires.

The Dominican Republic proposes the creation of a national forest monitoring system as part of its preparedness plan for implementing REDD-plus, to provide estimates of CO_2 emissions that are transparent, consistent, and as exact as is possible, and that reduce uncertainties, taking into account national skills and capacities. The main objective of this monitoring system will be that of generating verifiable information as to GHG emissions and removals, related to deforestation and

forest degradation in relation to the five REDD-plus activities, and the monitoring of the multiple benefits, other impacts, and governance related to this Strategy.

Following a simple approach, the estimate of forest carbon content may be estimated as follows:

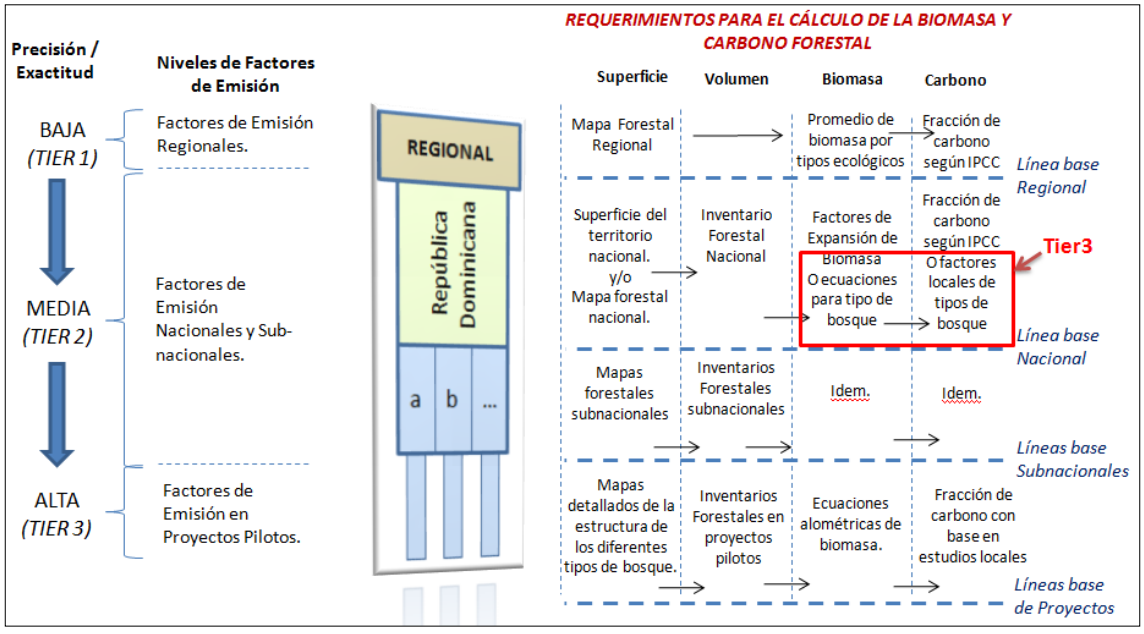
Carbono Forestal	=	Superficie por tipos de Bosque	x	Intensidad de Biomasa	x	Fracción de Carbono

The surface area by kinds of forest is obtained from the forest cover maps, while the biomass intensity by forest surface area may be selected from amongst the following alternatives:

- Average factors by forest type;
- Volume data from the forest inventory, using a biomass expansion factor;
- Allometric biomass equations.

The factors that may be used for calculation of the carbon fraction of dry biomass are those that are recommended by the IPCC – or locally generated factors may be used. In addition to addressing the multilevel concept from the geographic viewpoint (regional, national, sub-national), the biomass/carbon baseline also takes into account the perspective of the IPCC, which takes into consideration the level of uncertainty (precision/accuracy), the so-called tiers: (a) Tier 1: Low precision; Tier 2: Medium precision; and Tier 3: High precision. A schematic diagram is presented in Figure 21 of the proposed requirements for the biomass/carbon baseline at different levels.

FIGURE 21. Proposed requirements for the biomass/carbon baseline



SOURCE: Report of the National Forest Monitoring Workshop (2010)

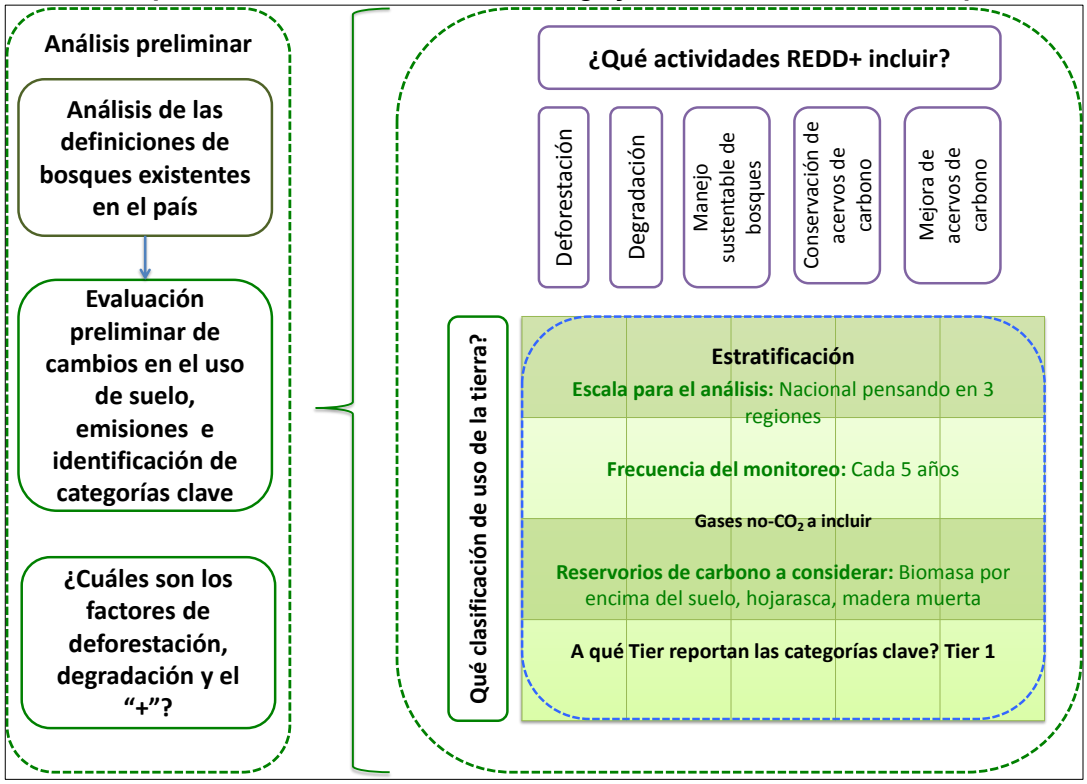
It is proposed that the monitoring system for the Dominican Republic be designed in a way that permits monitoring both the GHG emissions related to deforestation and forest degradation, as

well as also evaluating the indicators of the health of the forest, water regulation, biodiversity and sustainable forest management, and the forest's timber and non-timber products, in such a way as to be a generator of valuable information for the public and private management of the forest sector, as well as for other stakeholders and sectors.

In addition, the monitoring system is to provide data for improvement in understanding of the processes of forest management and rehabilitation of degraded forests. A schematic view is presented in Figure 22 of the national forest monitoring system for the Dominican Republic.

As may be observed in Figure 11, the national forest monitoring system is to contain information on the five forest carbon stocks established by the IPCC: (1) above-ground biomass; (2) below-ground biomass; (3) dead wood; (4) leaf litter and detritus; and (5) soils. In addition to addressing the multi-level concept from the geographical viewpoint (national, sub-national), the forest monitoring system will also take into account the perspective of the IPCC, looking at the level of uncertainty (precision/accuracy), the so-called tiers: Tier 1: low precision; Tier 2: medium precision; and Tier 3: high precision. For this reason, the system will be built in phases, starting on the basis of the current capacities of the national institutions and the information available. The scope of the system will increase as those capacities get strengthened, and it has greater resources available to it.

FIGURE 22. Scope of the national forest monitoring system for the Dominican Republic



SOURCE: Adapted from the Mexico–Norway Project "Reinforcing REDD-plus Readiness in Mexico and Enabling South-South Cooperation"

Monitoring and reporting allow for the generation of reliable and periodic estimates of emissions due to deforestation and degradation. In the case of the Dominican Republic, monitoring and reporting as a final product of implementation of the forest monitoring system should provide information that supports decision-making in the five activities addressed for the REDD-plus mechanism:

- Reducing emissions from deforestation;
- Reducing emissions from degradation;
- Conservation of the carbon stocks in forests;
- Sustainable management of the carbon stocks in forests;
- Increase in forest carbon stocks.

The reports should support enhancement of the data on forest carbon that are included in the national GHG inventories, within the framework of the communications to the United Nations Framework Convention on Climate Change (UNFCCC).

4a.6 Assessment of national capacities for forest monitoring

Elements within the National Forest Monitoring System for REDD-plus	
Individual capacities	**Functional systems**
Existing capacities • Three technical staff from the Ministry of the Environment and Natural Resources participate in regional training on monitoring for REDD-plus that was undertaken within CATIE, from June 2011 to August 2012. • 63 forest technicians, both from within as well as from outside of the Ministry of the Environment, received training in two three-day courses on *Multi-Purpose Forest Inventories*, held in November 2012 and February 2013. • There are some ten technical staff qualified in forest monitoring, who may act as national-level instructors, with support from universities and specialized institutes. • DIARENA has technical staff qualified in management of geographic information systems with remote sensing devices.	**Existing capacities** • DIARENA has geographical information equipment and systems that have been in use for several years. • A GIS has been set up through the PROCARYN program, in the upper basin of the Río Yaque del Norte, with the agro-forestry tracts and management plans of that area. This information system has been enlarged within the project for support to the agro-forest SMEs of this watershed, developed by UAFAM with support from the IDB, and within the initiative for payment for environmental services. A GIS has also been set up in the area of impact of the Sabana Yegua dam (upper basin of the Río Yaque del Sur), within the project for Sustainable Management of Lands cofinanced by the GEF and executed by the South Future Foundation, under the terms of an agreement with the Ministry of the Environment. The same thing will be done in the Artibonito watershed, within the framework of the binational project that the GEF co-finances. Georeferenced information is available in the area of impact of the Sierra Plan, on the agro-forestry tracts and forest plantations supported by this organization. • A carbon inventory was recently carried out in Loma Quita Espuela and Loma Guaconejo, two privately-administered scientific reserves, using an easily-replicated method and

Elements within the National Forest Monitoring System for REDD-plus	
Individual capacities	**Functional systems**
	undertaken by US researchers, associated with the initiative for payment for environmental services for protection of the migratory thrush, coordinated by the Dominican Environmental Consortium, under an agreement with the Ministry of the Environment and Natural Resources. • A methodological proposal was developed with the support of TNC/USAID, to carry out the national assessment of forests and update the forest inventory.
To be built • Training in forest monitoring for field technicians from the Provincial Directorates of the Ministry of the Environment and from the Quisqueya Verde program, as well as from the forest sector NGOs. o This includes training in the use of GPS for geo-referencing fires, forest clearances, or any other phenomenon that impacts the forest cover, in order to feed into the GIS administered by the DIARENA. o It also includes training to carry out field measurements in order to be able to establish the carbon and biomass that exist in any particular forest ecosystem. • Develop and acquire standardized training tools for the training of field staff, both from the Ministry of the Environment and from other governmental institutions, as well as from the NGOs.	**Capacities to be built** • Increase the allocation of updated equipment and software, as well as the acquisition of new images for the development and updating of DIARENA's GIS. • Provide low- to medium-precision GPS to all of the provincial offices of the Ministry of the Environment, in quantity sufficient for the surface area and characteristics of the surveillance area that corresponds to them within forests and protected areas. • Provide at least one high-precision GPS to each provincial office of the Ministry of the Environment. • Develop the information to feed the DIARENA's GIS in areas like Restauración, where the forest management plans have acquired great economic importance and there is a need for geo-referenced information on them. • With the GPS equipment and trained staff within the Provincial Directorates of the Ministry of the Environment and Natural Resources, update all of the information on the protected areas, including the mapping of their boundaries. • The boundaries of the protected areas were not defined with the participation of the neighboring populations, and for this reason there are unresolved conflicts over use, particularly with agriculture and livestock raising. Financing of REDD-plus offers an opportunity to establish these boundaries in a consensual way with the people, and encourage legal activities compatible with conservation of the forests that contribute to improving their living conditions.

Elements within the National Forest Monitoring System for REDD-plus	
Individual capacities	**Functional systems**
	• Carry out the carbon and biomass inventory for all of the country's forests and protected areas. • Identify and select a sufficient number of permanent observation plots, representative of the diversity of the country's ecosystems, for the regular updating of the forest inventory at least once every five years. • Establish a permanent forest monitoring team within the Ministry of the Environment, charged with managing these functional support systems for decision-making and for reporting to REDD-plus. • Involve the academic and scientific community in the development of research on forests[1], amongst other things to: o Improve scientific knowledge regarding the impacts of climate change on carbon stocks, on the various environmental services, and on the natural fire regimes of the Dominican forests. o Develop biogeographical models at appropriate scales, in order to reduce uncertainty in forecasting of the behavior of the Dominican forests, in light of the possible lengthening of the drought periods and the increase in temperature. o Establish allometric relationships for the whole of the country's forests or tree species, in order to facilitate carbon measurements. • Update the land tenure and title inventory of those lands that are appropriate for the expansion of the forest cover and for forest development. • Establish a system of inventory of changes in land use,

[1] The training of the staff of the Provincial Directorates of the Ministry of the Environment and Natural Resources, as well as NGO technical staff, will facilitate *the surveying of field data for scientific research on forests and climate change.*

Elements within the National Forest Monitoring System for REDD-plus	
Individual capacities	**Functional systems**
	based on a baseline and periodic comparisons that facilitate, amongst other things, reporting to REDD-plus, the issuance of environmental permits, and territorial management.

SOURCE: Luciano (2011)

4a.7 Activities for the budget

The national forest monitoring system for emissions and the increase in inventories of GHGs due to avoided deforestation and forest degradation, entails the compilation of data and information at national level, and the calculation necessary in order to estimate those reductions or increase in carbon inventories against a reference level. This forest monitoring system includes two fundamental components, based on the IPCC standards: activity data and emissions factors. In accordance with Figure 23, they lead to periodically developing maps of cover change, and applying a protocol to generate land use and land use change maps, while the "emission factors" are the GHG emissions or removals per activity unit, which implies the periodic compilation of data on losses/gains of carbon in the forests.

In order to monitor changes in carbon stocks, a standardized methodology is necessary for preparation of the vegetation cover map that would be comparable at the various measurement times. This methodology should be the same as the one that will be used to establish the reference level indicated in Chapter 3. The reference map will be subsequently updated at every monitoring event, at the time of defining the carbon fraction and the biomass intensities by forest cover type. They can be updated in line with the results of the forest inventories that get carried out during each monitoring event.

The set of activities that the Dominican Republic is to undertake in the coming years in order to design and implement a monitoring system is based on a stepwise approach, by means of assessment of the current capacity and of future requirements for REDD-plus monitoring. For definition of the budget, those activities may be grouped as follows:

4a.8 Preparatory activities

- Assessment of needs and priorities for information: includes assessment of the nation's capacities and analysis of the gaps with respect to national and international requirements;
- Definition of the methodological approach for monitoring of emissions: monitoring of deforestation, degradation and of the "plus" activities;
- Definition of the strategy for execution in seeking institutionalization: definition of the institutional framework: UMF, Forests Commission of the Ministry of the Environment, and other partners;
- Compile existing data from forest inventories;
- Compile data for allometric models and permanent plots: organize them into a database;

- Prepare a plan for building national capacities: development of processes for training in the various technical aspects;
- Implement a pilot process on forest monitoring: systematize the results;
- Draw up a methodological guide, and a guide for monitoring processes.

4a.9 Remote sensing device system

- Analyze the availability and acquisition of satellite images: compile the existing information for activities included, and identify gaps;
- Historical analysis of gross deforestation/reforestation: compile existing data, determine years and number of Landsat images to be analyzed, and fill in the gaps; develop a protocol for classification and detection of change, using Landsat images; interpret Landsat images in the base year of the reference period; implement the Landsat protocol for semi-automated classification and detection of changes; periodically develop cover change maps, and carry out assessment of their precision.
- Define methodologies for assessing uncertainty: define targets for precision and protocols, apply the protocol; periodically update the information, apply methodologies and identify areas of degradation and of improvement in carbon stocks.
- Development of the bases of the activity data system and platform: determine the approach and methodology for high-resolution and low-resolution early warning monitoring; ensure access to data from remote sensing devices; develop processing platforms; periodically update the data, and apply the protocol to generate maps for land use and land use change.

4a.10 Forest inventories

The multi-purpose survey for the National Forest Inventory, including the REDD-plus requirements, is being designed in order to ensure the coherence and timeliness of the information collected. The results of the NFI will be used as a point of reference on the state of the forests in the Dominican Republic, as well as an instrument for support to the national forest strategies and as a carbon stock baseline. The specific objectives of said NFI have been defined as follows:

- Establish the geographical location of the natural ecosystems, and their state of conservation, degradation, and restoration;
- Characterize the forest ecosystems, taking into account populations, species, height, diameter, density and health status;
- Establish a baseline and a network of permanent plots for monitoring of the country's forest resources (temporary plots); (the quantity of PPMs will be defined as a function of the monitoring capacity);
- Obtain up-to-date information on distribution, species, volumes, ages and health status of forest plantations;
- Locate and delimit forest properties with the potential for implementation of mechanisms through payment for environmental services;
- Estimate forest degradation and identify the areas for priority attention;
- Address the information related to volume and biomass by type of vegetation, national potential for capture of carbon, indicators regarding the vegetation, and the dynamic of change in forest vegetation in the country;
- Set up a system of deforestation and forest degradation monitoring, allowing the estimate of carbon stored by the forests to be kept updated; and

- Quantify the carbon stocks at national level in the various kinds of forests, for subsequent definition, and losses or gains in surface area (deforestation) and in quality (degradation).

The following activities are included for its design and execution:

- Standardize terms and definitions of attributes and variables;
- Define a system for classification of kinds of forests: stratify the territory using the cover map; compile spatial data to develop a database of emission factors; compile and assess the existing information, and identify gaps;
- **Define the sampling design.** The following methodological sequence is proposed in this connection: (a) carry out a pre-stratification to permit definition of the kinds of forests or plant resources that exist in a given region, area or country; (b) apply a systematic sampling in each stratum, defined with a variable intensity of sampling that may be determined by means of a pre-sample in each area of interest; (c) with the information collected in the field, carry out a post-stratification based on the processed data coming out of the inventory; and (d) based on this design, and through processes of comparison of variables of interest and having redefined the strata, it is possible to use three sampling systems for calculation of the sampling error and calculation of the estimates of the variables of interest, namely: simple random sampling, systematic sampling and stratified random sampling.

- **Determination of the sampling intensity.** Taking the "kinds of wooded formations" defined and identified in a GIS as a basis, the coefficient of variation (CV) is determined for the most relevant variable (for example, the basal area) in each of the areas, to the purpose of assigning the necessary sample size in order to obtain an acceptable sampling error (which in this case has been defined as being less than 13%).

- **Distribution of sample units.** Once the sampling intensity is known in each forest type, it is possible to determine the distance between sampling units (SUs) for each type of wooded formation, using for this purpose their distribution using the systematic sampling method with equidistant plots. For greater facility, this task is carried out with the help of the GIS.
- **Type of sampling units.** According to the IPCC, the size of the sampling plot represents a balance between accuracy, precision and time (cost) of the measurement. The size of the plot is also related to the quantity of the trees, their diameter, and the variance in the carbon stored between plots. Each plot that gets measured should be large enough to contain a sufficient number of trees. Plots of 1,000 m^2 will be established for the sampling, embracing the scheme established by the REDD-plus/CCAD/GIZ Program for the surveying of field information.
- Incorporate the requirements for estimates of carbon stocks;
- Compile and/or generate expansion factors and/or allometric equations: for selected forest species, and most common kinds of forests;
- Quality control methods and plan;
- Carry out the field work;
- Develop a new vegetation cover map in order to identify the diversity of kinds of forests, using RapidEye satellite imagery;
- Analysis and dissemination of the results.

4a.11 Participation of the local stakeholders and the private sector in the national forest monitoring system

The Dominican Republic proposes an inclusive approach for developing a REDD-plus mechanism, such that the local stakeholders have significant participation in its implementation. The national forest monitoring system proposed will seek to promote an active role for the local communities, NGOs and private sector, such that execution of these activities gets carried out jointly. In addition, in implementation of the national forest monitoring system there is promotion of monitoring of the plots being undertaken by the communities that participate in the REDD-plus activities, in conjunction with the responsible technical staff, be it from the Ministry of the Environment and Natural Resources, or the forestry regents and consultants that work within NGOs and/or independently. This will contribute to implementation of an effective national forest monitoring system that maximizes the resources available, provides transparency to the system, and ensures the participation of the local communities, forest owners, and civil society in general.

The participation of the local stakeholders in the national forest monitoring system will be defined within the framework of the actions foreseen in Component 1, Organizing and Holding Consultations. The technical structuring and administration of the National Forest Monitoring System will be the responsibility of the Ministry of the Environment and Natural Resources; the operational components are to get adapted to the participation bodies that get defined in the process of drawing up of the National REDD-plus Strategy. In any event, it will be ensured through the participative structures that are already in operation that the local stakeholders at all levels are duly included in the tasks that get defined as necessary and appropriate for successfully carrying out the process of forest monitoring and oversight.

FIGURE 23. Activities to be implemented by the National Forest Monitoring System for the Dominican Republic

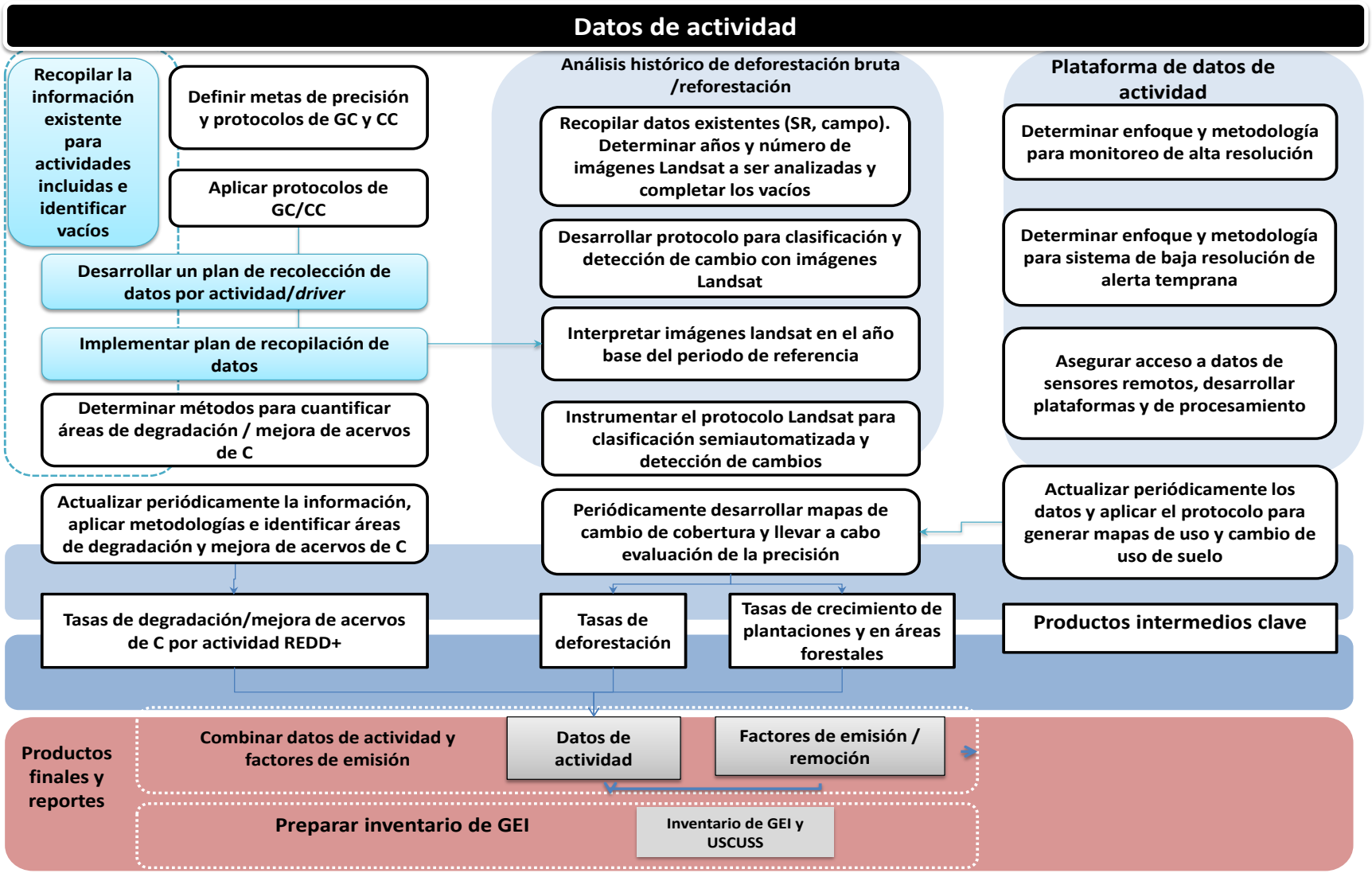
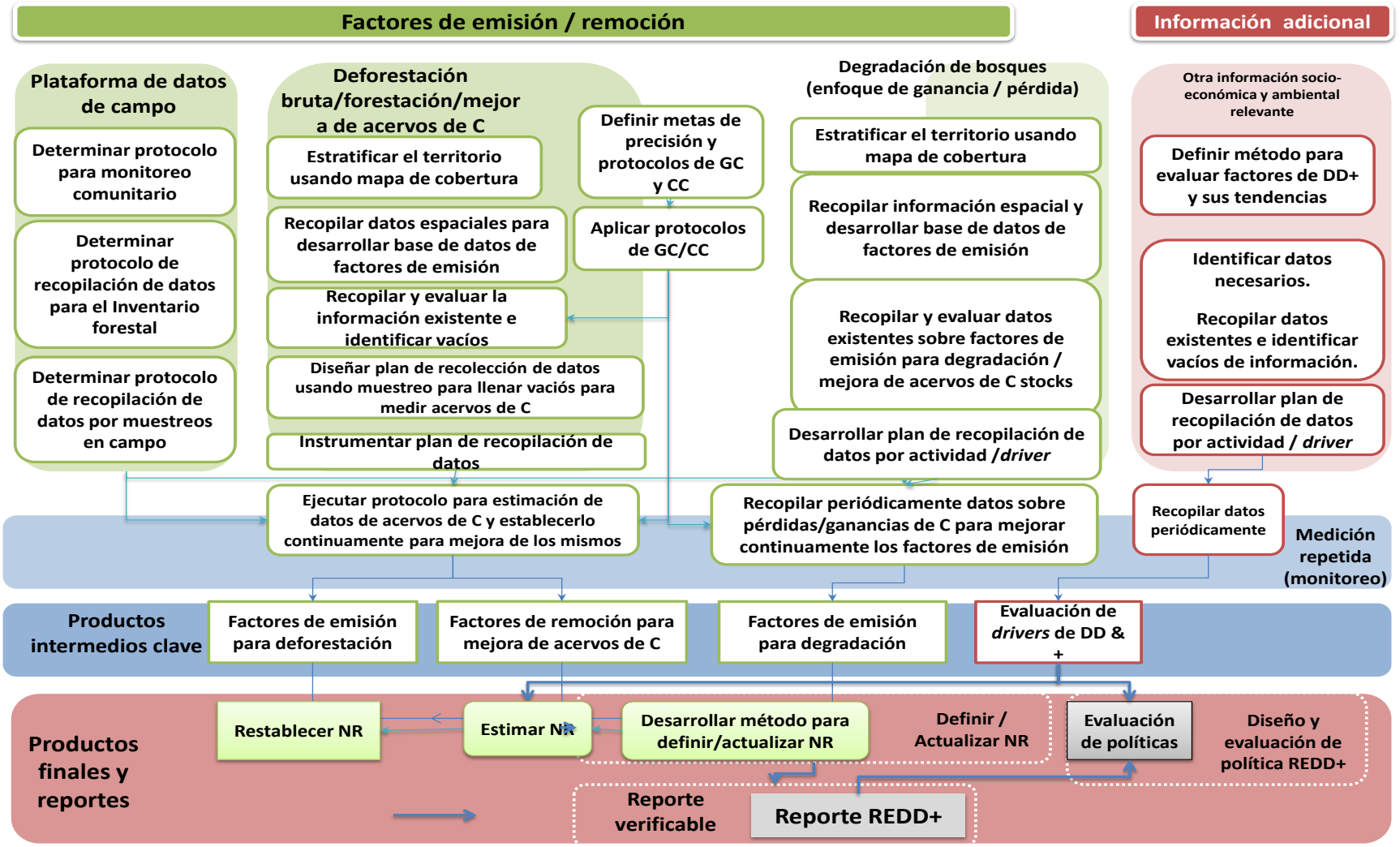


FIGURE 24. Activities in order to implement the National Forest Monitoring System for the Dominican Republic



SOURCE: Adapted from the Mexico–Norway Project "Reinforcing REDD-plus Readiness in Mexico and Enabling South-South Cooperation"

4a.12 Information systems

- Evaluate the applicability of the Inventory Analyzer software;
- Develop a proposal for integration of computer applications;
- Design and implementation of the forest information system;
- Evaluation of results for updating of REDD-plus policies.

4a.13 Institutional governance for monitoring

- Strengthening of the Forest Monitoring Unit;
- Human resource development;
- Improvement in operational capacity;
- Strengthening of REDD-plus working groups on the thematic area of monitoring;
- Synergy with institutions (other relevant socio-economic and environmental information; evaluation of deforestation and degradation drivers, and "plus activities");
- Organizing of future monitoring.

TABLE 20. Budget for Sub-component 4a: National Forest Monitoring System

Componente 4a. Sistemas de Seguimiento Forestal Nacional			Miles de US$				
Componente	Actividad principal	Subactividad	2013	2014	2015	2016	Total
Componente 4a. Sistemas de Seguimiento Forestal Nacional	4a.1. Actividades preparatorias	Diagnóstico de necesidades y prioridades de información	10	25	0	0	**35**
		Definición del enfoque metodológico para monitoreo de emisione	10	10	0	0	**20**
		Definir la estrategia de ejecución buscando la institucionalización	10	10	0	0	**20**
		Recopilar datos de inventarios forestales existentes	10	10	0	0	**20**
		Recopilar datos de modelos alométricos y parcelas permanentes y organizarlos en una base de datos	10	10	5	0	**25**
		Elaborar e implementar plan de construcción de capacidades nacionales	20	50	40	20	**130**
		Implementar un proceso piloto sobre monitoreo forestal y sistematizar resultados	10	20	10	5	**45**
		Elaboración de una guía metodológica y de procesos para el monitoreo	0	10	5	5	**20**
	4a.2. Sistema de Sensores remotos	Analizar disponibilidad y adquisición de imágenes satelitales	5	60	10	0	**75**
		Análisis histórico de deforestación bruta / reforestación	50	40	30	20	**140**
		Definir metodologías para evaluar la incertidumbre	15	10	5	0	**30**
		Desarrollo de las bases del sistema y plataforma de datos de actividad	30	40	40	40	**150**
	4a.3. Inventarios forestales	Homogenizar términos y definiciones de atributos y variables	15	0	0	0	**15**
		Definir sistema de clasificación de tipos de bosques	20	0	0	0	**20**
		Diseño del Inventario Nacional Forestal	60	0	0	0	**60**
		Incorporar los requerimientos para estimaciones de depósitos de carbono	5	10	0	0	**15**
		Recopilar y/o generar factores de expansión y/o ecuaciones alométricas (por tipos de bosques y especies forestales mas comunes)	45	90	45	45	**225**
		Métodos y plan de control de calidad	0	20	15	15	**50**
		Realización del trabajo de campo	100	400	400	100	**1,000**
		Elaboración de mapas temáticos	0	20	20	20	**60**
		Análisis y difusión de los resultados	0	20	30	50	**100**
	4a.4. Sistemas de información	Evaluar aplicabilidad del software Analizador de Inventarios	15	5	0	0	**20**
		Desarrollar una propuesta de integración de aplicaciones informáticas	0	20	20	10	**50**
		Diseño e implementación de sistema de información forestal	0	20	20	20	**60**
		Evaluación de resultados para la actualización de políticas REDD+	0	10	20	30	**60**
	4a.5. Institucionalidad para el monitoreo	Fortalecimiento de la Unidad de Monitoreo Forestal	30	80	80	80	**270**
		Desarrollo de recursos humanos	20	40	40	40	**140**
		Mejora de la capacidad operativa	10	30	20	20	**80**
		Fortalecer grupos de trabajo REDD en la temática de monitoreo	0	10	10	10	**30**
		Sinergia con instituciones	0	10	10	10	**30**
		Organización del monitoreo futuro	0	10	30	30	**70**
		TOTAL	**500**	**1,090**	**905**	**570**	**3,065**
		Gobierno Dominicano	102	223	185	117	627
		FCPF (Banco Mundial)	273	594	493	311	1,671
		Programa Regional REDD/CCAD/GIZ	125	273	227	143	767

COMPONENT 4b: DESIGN OF AN INFORMATION SYSTEM FOR MULTIPLE BENEFITS, OTHER IMPACTS, GOVERNANCE, AND SAFEGUARDS

Standard 4b the R-PP text needs to meet for this component: Designing an Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards:

he R-PP provides a proposal for the initial design and a workplan, including early ideas on capability (either within an integrated system, or in coordinated activities) for an integrated monitoring system that includes addressing other multiple benefits, impacts, and governance. Such benefits may include rural livelihoods enhancement, conservation of biodiversity, and/or key governance factors directly pertinent to REDD-plus implementation in the country. (The FCPF recognizes that key international policy decisions may affect this component, so a staged approach may be useful. The R-PP states what early activities are proposed.)

Introduction

"REDD+ safeguards are policies and measures that address both direct and indirect impacts of REDD+ on communities and ecosystems. They do this by identifying, analyzing and managing risks and opportunities." (Murphy 2011, cited by Angelsen et al, 2013). As was set out in the COP 17 of the UNFCCC, "the safeguards address transparency as to governability, and respect for the rights of indigenous peoples and local populations, as well as their full participation in REDD-plus activities, and actions to reduce the risk of loss of biodiversity, and (permanent) reversal and displacement of emissions (leakages)".

The UNFCCC's REDD-plus Safeguard focuses on national forest governance structures, mainly as regards transparency and effectiveness. The indicators to assess the transparent governance structures focus mainly on the way that the country guarantees the right to access to information and to accountability, while effective governance structures are evaluated through the existence of a solid legal and institutional framework that ensures rights of access, intersectoral coordination and integration of economic and social elements into environmental decisions.

1. Compatibility with: national forest programs and international conventions and agreements;
2. Transparency/effectiveness of the national forest governance structures;
3. Respect for the knowledge and rights of indigenous peoples and local communities;
4. Full and effective participation of the stakeholders;
5. Compatibility with: conservation of natural forests, biological diversity, and promotion of other social and environmental benefits;
6. Adoption of measures to face the risks of reversal;
7. Adoption of measures to reduce the displacement of emissions.

The UNFCCC's REDD-plus Safeguards have as their objective, not only to mitigate the risk of the negative social and environmental impacts of the REDD-plus measures, but also

that of actively promoting benefits that go beyond the reduction of carbon emissions – such as an increase in the security of land tenure, the empowerment of the stakeholders by ensuring their full and effective participation, and improvement in biodiversity and forest governance. The UNFCCC's REDD-plus Safeguards sketch out an overall framework of social, environmental and governance principles, within which the REDD-plus activities and measures are to be implemented. In complying with that which is contained in the overall framework, the countries will be able to minimize the risks posed by the REDD-plus measures, and increase the possibility of obtaining its benefits, both those related to carbon, as well as those that are not.

While the World Bank considers the measures, policies, and procedures directed to preventing undesired results to be safeguards, the approach to application of the safeguards is dual-track: (i) in relation to potential risks and impacts, through incorporating social and environmental considerations during the phase of design of the national REDD-plus strategy; and (ii) managing and mitigating the risks and impacts at the time of application of the selected REDD-plus policies, during the implementation phase.

For the Dominican Republic the safeguards represent the set of measures and procedures directed to promoting achievement by the REDD-plus mechanism of the sustainable reduction of emissions, through the strengthening of forest governance, forest conservation, respect for human rights, and minimization of the impacts on society and the environment. To this end, the understanding and capabilities of the stakeholders will be strengthened in relation to their rights and obligations to participate in environmental decision-making (REDD-plus). How to achieve the increase in access to information on the right to participation in decision-making, taking into account the analyses set out in the study of the existing legal framework, in order to allow access to all of the country's sectors?

As regards multiple benefits, other impacts, governance, and safeguards regarding REDD-plus, the Dominican Republic proposes to have a system that is complementary to the National Forest Monitoring System, addressing the co-benefits as to biodiversity, governance and socio-economic aspects, and information on compliance with the safeguards.

4b.1 Social and environmental impacts

Appendix I of Decision 1/CP.16, reached in Cancún, Mexico, establishes the guidance and safeguards applicable to REDD-plus. This decision mentions the measures by means of which the safeguards should be promoted and supported, encouraging the Parties that are developing countries to contribute to the work of mitigation in the forest sector, by adopting measures at their discretion and in line with their respective capabilities and national circumstances. All of these measures should be applied, *"promoted and supported"* in the following safeguards:

a) The complementarity or compatibility of the measures with the objectives of the national forest programs and the international conventions and agreements on this matter;

b) The transparency and effectiveness of the national forest governance structures, bearing in mind national legislation and sovereignty;

c) Respect for the knowledge and rights of the indigenous peoples and the members of the local communities;

d) Full and effective participation in REDD-plus on the part of the stakeholders, in particular the indigenous peoples and local communities;

e) The compatibility of the measures with natural forest conservation and biological diversity;

f) Adoption of measures to face the risks of reversal;

g) Adoption of measures to reduce displacement of emissions.

The systems that provide information as to how the REDD-plus safeguards are respected and complied with should take national capacities and circumstances into account, recognize national sovereignty, existing legislation, and the relevant international obligations and agreements, and respect gender considerations. In addition they should:

a) Be consistent with that agreed to in COP 16;

b) Provide consistent and transparent information that is accessible to the key stakeholders and is regularly updated;

c) Be transparent and flexible, in order to allow improvements over time;

d) Provide information as to how the safeguards (those established in the Cancún agreement) are being addressed and respected;

e) Be led by the countries and implemented at national level;

f) Build as much as possible on already existing systems.

In addition, other desirable characteristics that the information system for multiple benefits, other impacts, governance, and safeguards should comply with, are as follows:

- It should be able to provide precise, timely, reliable and complete information on the various elements and sub-elements that may be identified in each one of the safeguards set out in point 2 of Appendix I of Decision 1/COP 16.
- The quality of the information (pertinence, coherence, objectivity and comparability over time) and the implementation of the system, should be consistent with the official and legal standards and procedures.
- It should progressively correspond to the various phases of REDD-plus, until reaching the stage of full application (based on the results).
- It should meet the information needs of the domestic interest groups, as well as those of legitimate third parties, as is the case of the donors that contribute funds.
- The information on how the safeguards are addressed and respected is to be presented as an integral part of the progress reports on implementation of the REDD-plus+ strategy, in a way that is consistent with the status and phase of its execution.

- In the process of design and implementation of the system, and in the supply of information, the authorities or competent institutions will participate, in line with their legal mandates, in the areas of application of the policies related to REDD-plus+.
- The final design of the information system should be endorsed by the stakeholders. (What has the government done to identify the main stakeholders? What can be pointed to as proof that a reasonably broad group of the main stakeholders has been identified? What is being done to start to listen to the voices of the vulnerable groups? The concerns and recommendations of the stakeholders?)

All of these characteristics will be taken into consideration to assess the social and environmental impacts of the REDD-plus actions. A **baseline will be established** at the beginning of preparation of the strategy. Taking into consideration the **lessons learned from the previous experiences**, procedures and protocols should be derived that will be used for the information system for multiple benefits, other impacts, governance, and REDD-plus safeguards in the country.

The **criteria and indicators will be established** later, in a broadly participative way, for monitoring compliance with the social and environmental safeguards. This will act to ensure that the process of REDD-plus implementation generates a balance of social and environmental benefits in the forest landscapes and rural populations that occupy that territory. The definition of the criteria and indicators that get applied in the early REDD-plus actions will be centered on the aspects of monitoring and verification of the benefits, under the headings of biodiversity, water and socio-economic resources, and governance, in which community monitoring will be promoted in order to encourage involvement by the communities.

The following guidelines will be taken into account in selection of the indicators:

- Relevant: Is within the official information realm.
- Pertinent: Is adapted to the objectives, international commitments and other national demands. Defines priority.
- Responsible entity for generating the indicator: There is a body that regularly generates the indicator.
- Availability of baseline information: The bodies identified as the source of the variables for the indicators regularly generate the baseline information.
- Frequency requirements for the baseline information: based on the period that gets determined for generation of the indicators, as a result of the demand requirements.
- A viable indicator: is an indicator that complies with all of the foregoing requirements.

Some of these indicators may be as follows:

• Review of the legal, institutional and methodological framework;

• Review of existing indicators and systems;

• Definition of indicators required for monitoring the safeguards;

- Identifying the existing strengths and weaknesses;
- Identifying gaps in indicators;
- Developing methodology sheets.

4.b.2 International processes and their national implementation

The Dominican Republic has ratified the main multilateral environmental treaties, and is a signatory member of other recent multilateral agreements related to forests. With the creation of the Ministry of the Environment and Natural Resources in the year 2000, the focal points of the environmental conventions have been transferred to it, and it has the responsibility for coordinating their formulation and implementation. The international instruments in effect represent a framework of technical and political opportunities for implementation of REDD, in particular in the processes of adoption of legally binding instruments in the sphere of environmental protection. These conventions have exercised a certain influence in the Dominican Republic, acting as a point of reference for laws and the definition of lines of action in the forest sector. A summary is presented in Appendix 13 of the main actions undertaken by the Dominican Republic in following up on those international commitments (Díaz, 2006).

The existence of these international agreements has acted to consolidate intra-governmental relations, as a function of compliance with the binding international responsibilities, which in turn should strengthen implementation of REDD-plus.

The United Nations Conference on Environment and Development in 1992 strengthened the country's conservationist currents, encouraging the processes of incorporation of the new principles and mandates from those instruments of international law, into management of the environment and natural resources – specifically the need to expand the portion of the national territory devoted to conservation of biodiversity, through SINAP (SEMARN, 2006).

The *Millennium Declaration,* issued at the so-called "Millennium Summit", brings together a high proportion of the commitments taken on by the country's authorities at the various world and international summits mentioned above.

In particular, the free trade treaty with Central America and the United States (DR-CAFTA), in addition to endorsing the national legislation, makes binding the commitments taken on, which lays down a trade precedent in environmental matters, in being the first one to include an entire chapter in reference to the environment, and to compliance with national law on the subject.

The Dominican Republic proposes that the REDD-plus activities be compatible with and complementary to the international (environmental and human rights) agreements and

conventions, ensuring compliance with its relevant international commitments and being applicable in implementation of REDD-plus.

Through its national legal framework, the Dominican Republic will guarantee adequate access to information in the taking of environmental decisions, which includes the REDD-plus activities. With regard to access to information, the main mechanism that will be used to ensure such access will be through the Offices for Free Access to Public Information, which exist in all of the public institutions, as mandated by Law 200-04 on Free Access to Public Information.

The design and implementation of the information system on multiple benefits, other impacts, governance, and safeguards will be progressive, and in line with the availability of financial resources, according to that which is set out in Decision 1/CP.16. As much as possible, the same consultation forums will be used as for the building of the National REDD-plus Strategy. The process to be followed will be as follows:

- Interpretation and analysis of context;
- Compilation and analysis of information: conceptual, legal, administrative, and methodological framework for the project;
- Selection of indicators and identification of gaps;
- Design of new indicators;
- Proposed architecture for the information system on multiple benefits, other impacts, governance, and safeguards, within the context of REDD-plus;
- Endorsement by pertinent stakeholders and sectors;
- Definition of the steps for implementation.

In the case of the Dominican Republic, there are some challenges to be overcome for the design and implementation of the information system on multiple benefits, other impacts, governance, and safeguards:

- Achieving a proper interpretation of the policies of the WB and of the UNFCCC agreements;
- Interesting all of the key stakeholders and facilitating their access to the system;
- Linking them to the various stages of the National REDD-plus Strategy, and to its national forest monitoring system;
- Designing a sustainable information system, based on the existing institutional platform for indicators, which generates quality information, with the required frequency, and having available indicators to monitor at different scales;
- Taking on of ownership of the system and of the tasks, on the part of the institutions and organizations responsible for generating official information;
- Development of instruments for generating the information on indicators, in line with national legislation;
- Harmonization and distribution of indicators of compliance with the safeguards, amongst the various national statistical information systems;
- Harmonization of the interest groups and attending to the pressures generated by other development activities;

- Adapting the legal framework for implementing REDD-plus;
- More effectively involving private enterprise and the NGOs.

Steps for establishment of a system of safeguards

1. Identify aspects and structures for designing the information system;
2. Identify measures needed for implementation;
3. Strengthen processes and institutional arrangements for the participation of key stakeholders in the identification of risks, and in REDD-plus implementation and oversight;
4. Participation and communication process;
5. Capacity-building;
6. Dissemination of information at all levels.

4b.3 Monitoring of social impacts

Initial consultations have been carried out for the drawing up of the first draft of the R-PP, with key stakeholders and sectors at national and sub-national levels, and with participation from some 154 persons, community representatives, state institutions, producers' organizations, business people, technicians and professionals. Design of an information system for multiple benefits, other impacts, governance, and safeguards will be undertaken participatively with the representatives of the key public and private stakeholders, with the ongoing involvement of all of the key stakeholders, and taking into particular account the peasant groups and the relationship of interdependence that they maintain with the forests, with a view to conserving their means of subsistence and their ways of life. Assessment is proposed to be undertaken on the basis of three dimensions in particular:

- Social participation: An effective policy of management of the forests demands a great effort in functional coordination between the bodies, firstly of the public sector, and secondly, amongst the non-public-sector bodies. The close inter-relationship between all of the natural resources and human activities makes it necessary to have coordination between all of the economic and social sectors that in one way or another affect or find themselves affected by the status of the natural resources. For this reason, in the building of the Dominican Republic's system of safeguards processes will be taken into consideration that involve the population in participation in actions that contribute to sustainable management of the forest ecosystems, in such a way that it is possible to avoid or reduce deforestation and forest degradation, in line with the approaches and needs of the rural communities that obtain their livelihoods from the forest landscapes. This participation will be made viable through the Forest Dialogue Forums (FDFs), at both national as well as sub-national level. Likewise, synergies will be produced with the more than 25 Provincial Environment and Natural Resources Councils launched by the Directorate of Public Participation of the Ministry of the Environment, and in which numerous peasant organizations are present that represent the most important level of organization in the forest and productive areas – through them the social work is facilitated and effective participation is ensured.

- Basic services: Related to the availability and proper access by the population to basic services, such as: education, health, housing, food security, and infrastructure, fostering suitable development of human capital in the territories where REDD-plus activities get implemented.
- Economic: Participation in economic activity and enjoying suitable conditions that allow sufficient income to achieve a decent standard of living in areas where REDD-plus activities get implemented.

4b.4 Monitoring of environmental impacts

4b.4.1 Monitoring of biodiversity

The Dominican Republic has ratified the main multilateral environmental treaties, and is a signatory member of other recent multilateral agreements related to the forests. With the creation of the Ministry of the Environment and Natural Resources, the focal points for the environmental conventions have been transferred to it, and it has responsibility for coordinating formulation and implementation. The international instruments in effect represent a framework of technical and political opportunities for REDD-plus implementation, in particular in the processes of adoption of legally binding instruments in the sphere of environmental protection and development.

The COP for the Convention on Biological Diversity (CBD) "reiterates the importance of cooperation between the conventions related to biodiversity, the Rio conventions and other pertinent instruments, for achieving" their full application. Thus recognition of "the importance of improving the synergies between the conventions related to biodiversity, in particular at sub-national, national and regional level", with the latter being the guiding premises for application of the three Conventions that were born at the 1992 Rio Earth Summit (Rio 92).

The UNEP/CBD/COP/DEC/XI/21 decision at the CBD COP establishes *"the integration of the considerations related to biological diversity into activities related to climate change",* where the following will be taken into account:

- The "strengthening of knowledge and information on the links between biological diversity and climate change."
- The importance of the activities for integrating biological diversity into activities related to climate change, and ensuring coherence in the national application of the United Nations Framework Convention on Climate Change and of the CBD; and as has been reiterated:
- *Collaboration between the Rio Conventions (including that on desertification and drought) and the Global Environment Facility.*

Likewise, in the above-mentioned decision, the COP *encouraged* the countries that are *parties to the Convention, and other governments, to*:

- Consider "the importance of the knowledge, innovations and traditional practices related to biological diversity, in addressing the effects of climate change within the context of the sectoral plans and strategies, particularly in considering the vulnerable communities;

- Strengthen knowledge and information, such as comparable datasets, and related activities of research and monitoring on the links between biological diversity, climate change and human welfare, in educational programs at all levels;
- Encourage synergies between the policies and measures related to biological diversity and climate change;
- Recognize the great importance of the function that the protected areas, rehabilitated ecosystems and other conservation measures can perform in the activities related to climate change;
- Support strengthening of the carrying out of inventories and monitoring of biological diversity and ecosystem services at suitable scales, to the purpose of assessing the threats and probable effects of climate change, and the effects both positive as well as negative of the mitigation of climate change and adaptation to the latter, on biological diversity and ecosystems services; and
- Consider a review of land use planning, with a view to improving adaptation to climate change, based on ecosystems, like for example the function of the mangroves in adaptation to changes in sea level.

The decision of the COP invites a reduction in the risk of displacing deforestation and forest degradation to areas of lesser carbon value and greater value in biological diversity, as well as other harmful effects for biological diversity and the indigenous and local communities. The CBD COP has been worried, amongst other things, because "in designing, applying and supervising activities of afforestation, reforestation and forest rehabilitation for mitigation of climate change", one should "contemplate biological diversity and ecosystem services, through the following:

"1. Converting only degraded lands of low value in biological diversity, or ecosystems composed mostly of exotic species, and preferably degraded ecosystems.

2. In selecting the species to plant, putting the priority whenever practical on local native and acclimatized tree species;

3. Avoiding invasive exotic species;

4. Preventing the net reduction of carbon stocks in all of the organic carbon stores;

5. Situating the afforestation activities strategically within the landscape in order to improve connectivity and increase the supply of forest ecosystem services within the forest areas."

The Dominican Republic occupies first place in terrestrial biodiversity in the Caribbean. The Dominican Republic's diversity of flora contains more than 6,000 vascular plant species, of which 2,050 are endemic (34%). In terms of diversity of the fauna, 9,682 species of vertebrate and invertebrate animals have been reported, of which 2,830 are endemic (29%). The greater part of this biodiversity has the forests as its main habitat, for which reason they play a fundamental role in their protection. The Dominican Republic's National Protected Areas System is made up of 123 sites, covering a land surface area of 12,033 km^2 (25% of the country).

Efforts to avoid deforestation and the degradation of the forests should promote the conservation of biodiversity (Harvey et al, 2010; CBD, 2011); and improvement in the resilience of the forest ecosystems offers opportunities for the stability of the forest carbon (Thompson et al, 2011). Although the climatic and biodiversity objectives have many points in common (Strassburg et al, 2010), the new flows of funds for the REDD-plus projects likewise offer the opportunity to finance the conservation activities already underway (with the necessary modifications)."

It is for this reason that the Dominican Republic proposes to undertake the synergies needed to take advantage of the co-benefits, which in this context get translated as the benefits derived from the National REDD-plus Strategy, but are different from the benefits related to climate change – like improvement in biodiversity, improvements in adaptation to climate change, poverty alleviation, improvements in local livelihoods, improvement in governability of the forests, and protection of rights.

The most important challenge related to REDD-plus policies in the Dominican Republic is that of establishing a set of safeguard policies capable of being implemented, monitored and applied at relatively low cost, and that are attractive for carbon investors, in such a way that these actions do not act to the detriment of the people who live from the forest services, and taking into account that the forest in turn is one of the main contributors to the conservation of biodiversity.

In addition to taking advantage to learn by doing, it is necessary to increase research concerning the effects of REDD-plus policies on biodiversity, without ignoring that this mechanism is a measure for mitigating the adverse effects of climate change, and that the latter should be the platform in turn for species, including that the human populations, to continue to adapt to it.

4b.4.2 Other co-benefits

As well, the forests house more than 80% of terrestrial biodiversity, and play an important role in the carbon cycle. In addition, the forests provide a broad range of indispensable ecosystemic services: they regulate the water cycle and represent a brake on threats like floodwaters and droughts, and their effects. The forest constitutes the most complete and effective defense of the soil. Sustainable agriculture and tree farming can reverse degradation of the soil, and help to combat desertification. The contributions of the forests to food security and livelihoods are complemented with agriculture. The forests provide goods and support services to the agricultural sector. They produce benefits for livestock production, through forage and shade from the trees. Forest ecosystems provide a variety of timber and non-timber products that are intrinsically natural and recyclable.

Monitoring of the co-benefits will be undertaken in strategic territories, in which structures exist that have been created locally for the respective monitoring. In the case of water

resources, the focus will be on the micro-watersheds that supply water for human consumption, with the participation of the organizations with responsibility in water management, like the National Potable Water Institute (INAPA), the water supply and sewage corporations (CAASD, CORAASAN, CORAAMOCA and others), and the National Institute for Water Development (INDHRI), which is in charge of use of the water for irrigated crops, including the Administrative Boards of the country's irrigation systems.

Monitoring of the reduction of erosion and sedimentation will be carried out based on information coming from studies that get executed in the watersheds of the country's main reservoirs. The information related to the natural threats and risks (floods, landslides), will be developed in coordination with the National Emergency Commission (CNE), and the institutions that make up the national system of natural disaster prevention, mitigation, and response.

TABLE 21. Budget for Component 4b. Design of an Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards

Componente 4b. Diseño de un sistema de información para beneficios múltiples, otros impactos, gestión y salvaguardas			Miles de US$				
Componente	**Actividad principal**	**Subactividad**	**2012**	**2013**	**2014**	**2015**	**Total**
Componente 4b. Diseño de un sistema de información para beneficios múltiples, otros impactos, gestión y salvaguardas	**4b.1. Marco logico diseño del sistema de información para beneficios multiples y salvaguardas**	Recopilación de datos existentes mediante talleres participativos y otras tecnicas	15	0	0	0	**15**
		Identificar lecciones aprendidas de otros procesos similares y vacíos de información	5	10	0	0	**15**
		Desarrollar plan de recopilación de datos por actividad / identificar objetivos	10	0	0	0	**10**
		Evaluar los drivers de la deforestación y degradación de bosques	10	0	0	0	**10**
		Diseño de indicadores sociales y ambientales	10	10	0	0	**20**
	4b.2 Elaboración de linea base de posibles impactos sociales y ambientales	Linea de base social	20	0	0	0	**20**
		Linea de base ambiental	20	0	0	0	**20**
		Linea de base de otros co-beneficios	20	0	0	0	**20**
	4b.3 Construcción de un sistema de monitoreo de los impactos socioambientales de	Diseño e implementación de un plan de monitoreo		15	15	0	**30**
		Recopilar datos periodicamente	5	5	5	5	**20**
		Análisis y difusión de los resultados	0	0	10	15	**25**
	4b.4 Propuesta técnica evaluación de impactos sociales y ambientales (SESA) y marco de manejo de impactos (ESMF)	Evaluación de impactos sociales y ambientales (SESA) y marco de manejo de impactos (ESMF)	20	20	20	0	**60**
	4b.5 Fortalecimento institucional	Revisión de marco legal e institucional	10		0	0	**10**
		Desarrollo de recursos humanos	10	10	10	5	**35**
		Fortalecer grupos de trabajo REDD en la temática de salvaguardas	5	5	5	5	**20**
		Sinergia con otros procesos	5	5	5	5	**20**
		TOTAL	**165**	**80**	**70**	**35**	**350**
		Gobierno Dominicano	34	16	14	7	72
		FCPF (Banco Mundial)	90	44	38	19	191
		Programa Regional REDD/CCAD/GIZ	41	20	18	9	88

COMPONENT 5: SCHEDULE AND BUDGET

Standard 5 the R-PP text needs to meet for this component:

Completeness of information and resource requirements

The R-PP proposes a full suite of activities to achieve REDD-plus readiness, and identifies capacity building and financial resources needed to accomplish these activities. A budget and schedule for funding and technical support requested from the FCPF and/or UN-REDD, as well as from other international sources (e.g., bilateral assistance), are summarized by year and by potential donor. The information presented reflects the priorities in the R-PP, and is sufficient to meet the costs associated with REDD-plus readiness activities identified in the R-PP. Any gaps in funding, or sources of funding, are clearly noted.

5.1 Schedule and Budget

The Dominican Republic's proposal for the readiness phase totals US$6.97 million for a period of four years, of which US$1.43 will be funded by the Dominican Government, US$1.74 million provided by the Regional REDD-plus / CCAD / GIZ and US$3.80 million is requested of the Forest Carbon Partnership Facility (FCPF) to cover the calculated shortfall in resources to fulfill and implement the activities proposed in each component.

Of the general budget, 11% represents the strategic options component (2b), which prioritizes aspects of governance, capacity building, and thematic studies, which are essential for reducing the direct and underlying drivers of deforestation and forest degradation.

Just over half (57%) of the general budget represents dialogue-participation and monitoring components (1 and 4). These components emphasize consultation processes through free and informed prior consent, as well as the definition of principles, criteria and indicators for monitoring environmental and social services and benefits.

One third (32%) is assigned to subcomopments 2a, 2c, 2d and 3 for the analysis of land-use changes, and the general R-PP implementation and evaluation framework; and 55% of the total budget will be executed in the first two years of the planning, with the aim of establishing conditions for governance and national dialogue that are suitable for implementation and investment phase.

NOTE: This budget includes spending on human resource and logistics aspects, which tend to become operational constraints on project implementation in the Dominican Republic.

TABLE 22. General Budget for the Preparation of the National REDD-plus Strategy in the Dominican Republic (Phase I)

Componente	Subcomponente	2014	2015	2016	2017	Total
1a. Arreglos nacionales para Oficializar y Coordinar la actuación del Grupo Nacional de Trabajo (GNT) REDD	1a. Arreglos nacionales para Oficializar y Coordinar la actuación del Grupo Nacional de Trabajo (GNT) REDD	69	59	57	57	242
	1b. Intercambio de información y diálogo inicial con los principales grupos y partes interesadas	30	30	30	30	120
	1c. Arreglos nacionales para el manejo de la preparación y ejecución del Plan de Consulta	90	90	80	65	325
Subcomponente 2a. Evaluación del uso de la tierra, política forestal y Gobernanza	2a.1 Análisis del uso de la tierra, la tenencia de la tierra y de las causas de deforestación y degradación de bosques	31	20	12	11	74
	2a.2 Evaluaciones sectoriales y su relación con la deforestación	8	5	5	3	21
	2a.3 Análisis de experiencias previas para la conservación de los bosques y reducción de la deforestación y la gobernanza	22	10	10	10	52
	2a.4 Analizar la implicaciones económicas de REDD para los dueños de la tierra	32	30	15	15	92
	2a.5 Análisis y propuestas de normativas ambientales y forestales	40	36	14	11	101
	2a.6 Difusión de resultados	8	5	5	5	23
Subcomponente 2b. Opciones de la Estrategia REDD+	2b.1 Opciones de políticas para disminuir la deforestación y degradación de bosques por	100	33	25	25	183
	2b.2 Opciones de políticas para aumentar y capturar la renta forestal	105	30	30	25	190
	2b.3 Opciones de políticas que regulan directamente el uso de la tierra	80	57	55	48	240
	2b.4 Opciones de políticas transversales	60	30	30	30	150
Subcomponente 2c. Marco de Implementación de REDD+	2c.1 Arreglos institucionales para la implementación	20	9	9	9	47
	2c.2 Ajustes del marco legal	30	18	18	18	84
	2c.3 Selección y gestion de sitio piloto sobre REDD+	50	45	40	30	165
	2c.4 Acciones para resolver derechos sobre las reducciones	50	65	50	50	215
Subcomponentes 2d. Impactos sociales y ambientales	2d.1 Establecer los arreglos institucionales para el manejo de la SESA	5	7	5	5	22
	2d.2 Definición de actores o grupos de actores	23	24	14	9	70
	2d.3 Elaboración /consenso del plan para desarrollar la Evaluación estratégica de los impactos sociales y ambientales (SESA)	32	30	15	5	82
	2d.4 Análisis preliminar de impactos sociales, culturales y ambientales que las actividades REDD+ podrían ocasionar	25	27	20	20	92
	2d.5 Análisis y evaluación participativa de los impactos sociales, culturales y ambientales	15	35	35	15	100
	2d.6 Publicaciones del Reporte Nacional SESA	10	15	15	5	45
	2d.7 Preparación participativa del Marco de Manejo Ambiental y Social	15	20	20	20	75
	2d.8 Publicación del Marco de Manejo Ambiental y Social	15	25	30	20	90
Componente 3. Niveles de Referencia	3.1. Fortalecimiento institucional	35	60	60	55	210
	3.2. Aspectos conceptuales y estratégicos claves	30	60	15	0	105
	3.3. Compilación y análisis de datos	20	160	160	145	485
Componente 4a. Sistemas de Seguimiento Forestal Nacional	4a.1. Actividades preparatorias	80	145	60	30	315
	4a.2. Sistema de Sensores remotos	100	150	85	60	395
	4a.3. Inventarios forestales	245	560	510	230	1,545
	4a.4. Sistemas de información	75	235	250	250	810
Componente 4b. Diseño de un sistema de información para beneficios múltiples, otros impactos, gestión y salvaguardas	4b.1. Marco logico diseño del sistema de información para beneficios multiples y salvaguardas	50	20	0	0	70
	4b.2 Elaboración de linea base de posibles impactos sociales y ambientales	60	0	0	0	60
	4b.3 Construcción de un sistema de monitoreo de los impactos socioambientales de REDD+ con las comunidades rurales	5	20	30	20	75
	4b.4 Propuesta técnica evaluación de impactos sociales y ambientales (SESA) y marco de manejo de impactos (ESMF)	20	20	20	0	60
	4b.5 Fortalecimiento institucional	30	20	20	15	85
	TOTAL (US$)	**1,715**	**2,205**	**1,849**	**1,346**	**7,115**
	Gobierno Dominicano	504	417	301	347	1,570
	FCPF (Banco Mundial)	916	1,178	988	719	3,800
	Programa Regional REDD/CCAD/GIZ	295	610	560	280	1,745

COMPONENT 6: DESIGN A MONITORING AND EVALUATION FRAMEWORK

Standard 6 the R-PP text needs to meet for this component:

Design a Program Monitoring and Evaluation Framework

The R-PP adequately describes the indicators that will be used to monitor program performance of the Readiness process and R-PP activities, and to identify in a timely manner any shortfalls in performance timing or quality. The R-PP demonstrates that the framework will assist in transparent management of financial and other resources, to meet the activity schedule.

Presentation

The objective of this component is to create a framework to monitor and control the proper implementation of the R-PP work program in the Dominican Republic (the M&E plan). In particular, it will seek efficient, effective and transparent management of the resources used in the process, and fulfillment of the targets, outcomes and outputs in the required manner and timeframe.

This framework also identifies potential shortfalls, failures in outcomes or performance during the implementation of the work program, and thus also serves as the basis for possible corrections in the process of developing the country's readiness for a National REDD-plus Strategy system.

6.1 Procedural logic

This is a general framework making possible to logically follow the general elements of the proposal and its main elements. In the initial months of R-PP implementation an M&E plan will be developed that will provide details of work plans, activities and ToR, the development and implementation of components, using specific logical frameworks for each component and subcomponent.

The entity in charge of developing the M&E plan will be appointed in due course by the Ministry of the Environment and Natural Resources, to monitor implementation of the work program in coordination with the other institutional levels that exist for the National REDD-plus Strategy platform in the Dominican Republic, and the international partners designated for that purpose.

Implementation of the M&E plan will seek not only to verify progress in the implementation of measures and achievement of the results and products themselves, but also to verify product quality and performance, and their proximity to the compliance standards established or to be established for the participatory and consultative processes

Fulfillment of these standards will ensure that national proposals are consistent with the requirements of the relevant international processes and initiatives (UNFCCC, IPCC), and will make it easier to attract potential international investments in the National REDD-plus Strategy programs in the Dominican Republic.

The table below sets out a general matrix for the monitoring and evaluation framework to be followed in this readiness proposal.

TABLE 23. National REDD-plus Strategy Program Monitoring and Evaluation (M&E) Framework

INSERT >>>

ANNEXES

Annex 1. Definition of Forest in Dom Rep.docx

Annex 2. Decree establishing the National Climate Change Council.pdf

Annex 3. Bill Draft Law on Payment for Environmental Services.pdf

Annex 4. Land Tenure in the Dominican Republic.pdf

Annex 5. Policy and Sustainable Consumption in the Dominican Republic.pdf

Annex 6. Fourth Report on Biodiversity in the Dominican Republic.pdf

Annex 7. National Strategy for the Conservation and Sustainable Use of Biodiversity in the Dominican Republic.pdf

Annex 8. National Report on Combating Desertification and Drought in the Dominican Republic.pdf.

Annex 9. Policy for the effective management of SINAP in the Dominican Republic.pdf

Annex 10. Resolution creating the National ForestryMonitoring System.pdf

Annex 11. Protected Areas in the Dominican Republic.xlsx

Annex 12. Evolution of forestry legislation in the Dominican Republic.docx

Annex 13. International Agreements Signed by the Dominican Republic. docx

Annex 14. ENREDD Work Plan.docx

Annex 15. Pilot Project Roadmap.docx

http://www.cedaf.org.do/REDD-plus/InformeGeneral.pdf

http://www.cedaf.org.do/REDD-plus/preguntas.pdf

http://www.cedaf.org.do/REDD-plus/Sintesis_talleres.pdf

http://www.cedaf.org.do/REDD-plus/Taller_REDD-plus.pdf

References