

Readiness Preparation Proposal (R-PP)

for Country: BELIZE

Date of submission or revision: November 8th, 2013

Forest Carbon Partnership Facility (FCPF)

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

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

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General Information

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

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Summary of the R-PP

Dates of R-PP preparation (beginning to submission):	January 2012-November 2013
Expected duration of R-PP implementation (month/year to month/year):	June 2014 to May 2017
Total budget estimate:	\$4,167,000.00
Anticipated sources of funding:	From FCPF: \$3,500,000.00 From UN-REDD: National government contribution: \$252,000.00 Other source: GEF-KBA: \$40,000.000 Other source: CCAD/GIZ REDD: Other source: GEF-BEA: \$83,500.00
Expected government signer of R-PP grant request (name, title, affiliation):	Dr. Wendel Parham Chief Executive Officer Ministry of Forestry, Fisheries and Sustainable Development
Expected key results from the R-PP implementation process:	Outcome 1. Establishment of a National Reference Scenario based on historical emissions from deforestation and forest degradation Outcome 2. A Comprehensive National REDD+ Strategy that adequately addresses identified drivers of deforestation and forest degradation Outcome 3. A comprehensive, cost effective monitoring framework for measuring the results from the REDD+ strategy initiatives

Executive Summary

Forest conservation has, historically, been a major priority for Belize (NPAPSP 2005). This is evidenced by the country's extensive protected areas system, which protects some 1.6 million acres of forest, or approximately 46.8% of the country's forests (Cherrington et al. 2010). Belize also boasts portions of the largest intact blocks of forests in Central America, namely the Selva Maya and the Maya Mountain Massif. Unfortunately, the forests have been under increasing pressures from land conversion and degradation activities such as the advancement of the agricultural frontier and unsustainable logging. It is increasingly challenging and overwhelmingly costly to maintain this system without additional effort and financing. The increasing threats to the integrity of the protected areas system, and the remaining unprotected forests, come at a time when forest conservation for the purposes of mitigating climate change and its consequent adverse impacts is of paramount importance to the global community. REDD+ presents the opportunity for Belize to gain additional financing to minimize deforestation and forest degradation in unprotected as well as protected areas, and to incentivize the sustainable use of forests and forest products across the country.

Of equal or more importance is the benefit of ensuring biodiversity, maintaining species migration routes, maintaining traditional livelihoods, forest resilience, forest ecosystem goods and services and ecosystem-based adaptation and mitigation to climate change. Preparing for REDD+ is an extensive process requiring broad consultation with national stakeholders from different institutions across various sectors (forestry, agriculture, urban planning etc) within both the public and private sphere. The Forest Carbon Partnership Facility (FCPF) has an international mandate to support countries meeting its eligibility criteria in this programming process, appropriately termed the readiness phase, and the subsequent implementation of the results of that programming process.

Recognizing the need to act quickly, with an estimated rate of deforestation rate of approximately 10,000 per year (Cherrington et al 2010), the Government of Belize, with support from the German Technical Co-operation (GIZ) initiated the programming process in Belize. The results of those initial consultations form a basis for the R-PP presented here, and it is hoped that further support from FCPF will provide for the full elaboration of REDD+ Strategy and the implementation of core and priority elements. The Government also seeks to take advantage of the learning process inherent to the FCPF seeking to apply relevant lessons learned in other countries advancing the REDD+ agenda so as to expedite the process in our own country.

This document details the position of Belize on REDD, outlining with regards to REDD processes: the resources and information available; the resources and information needed; the relevant policies extant and those lacking; the opportunities for contributing to the region's understanding of REDD processes; and the manner in which Belize will engage REDD at the national, regional and international level as a country with a history of conservation and involvement of local communities in forest governance.

REDD+ should not be seen as an end. The end goal is not merely to become involved in the global REDD+ initiative. Rather, Belize sees REDD+ as a vehicle for achieving the goals and objectives of sustainable land use management and sustainable forest management. Additionally, sustainable land management and forest management are only tool in the toolbox of sustainable development. Sustainable development features prominently as one of the key goals in the Horizon 2030 framework: "As a natural resource based economy, there is proper management allocation and utilization of the country's natural resources guided by the principles of sustainable development." Therefore as a vehicle for improving forest management practices in Belize, REDD+ is not 'the' answer to the country's forestry challenges, but rather a part of the solution.

Acronyms in the R-PP

APAMO	Association for Protected Areas Management Organization
BAPPA	Belize Association of Private Protected Areas
BAS	Belize Audubon Society
BEA	Biodiversity Enabling Activities (Project)
BELPO	Belize Institute for Environmental Law and Policy
BEnCO	Belize Environmental Consultancies Ltd
BENIC	Belize National Indigenous Council
BFREE	Belize Foundation for Research and Environmental Education
BNRWG	Belize National REDD+ Working Group
BTB	Belize Tourism Board
BTIA	Belize Tourism Industry Association
CATHALAC	Water Center for the Humid Tropics of Latin America and the Caribbean
CBO	Community Based Organizations
CBS	Community Baboon Sanctuary
CCCCC	Caribbean Community Climate Change Centre
CDM	Clean Development Mechanism
CCAD	Central American Commission for the Environment and Development
CSO	Central Statistical Office
CZMAI	Coastal Zone Management Authority and Institute
ESMF	Environmental and Social Management Framework
FAMRACC	Forest and Marine Reserves Association of Caye Caulker
FCPF	Forest Carbon Partnership Facility
FCD	Friends for Conservation and Development
FGRM	Feedback and Grievance Redress Mechanism
FOSC	Friends of Swallow Caye
FD	Forest Department
GEF	Global Environment Fund

GIZ	Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH
GIS	Geographic Information System
ICRAN-MAR	Mesoamerican Reef program of the International Coral Reef Action Network
IPCC	Intergovernmental Panel on Climate Change
ITCF	The International Tropical Conservation Foundation
KBA	Key Biodiversity Areas (Project)
LULUCF	Land-use, land use change and forestry
MNRE	Ministry of Natural Resources and the Environment
MNRA	Ministry of Natural Resources and Agriculture
MFFSD	Ministry of Forestry, Fisheries and Sustainable Development
MRV	Measurement, Reporting and Verification System
NAVCO	National Associate of Village Councils and District Association of Village Councils
NCCC	National Climate Change Committee
NCCO	National Climate Change Office
NCCS	National Climate Change Secretariat
NGO	Non-Governmental Organization
NLUP	National Land Use Policy
NSTMP	National Sustainable Tourism Master Plan
NWC	National Women's Commission
PACT	Protected Areas Conservation Trust
PFB	Programme for Belize
PES	Payment for environmental services
PERFOR	Regional Strategic Program for Forest Ecosystem Management
RASC	REDD+ Readiness Activities Steering Committee
R+CU	REDD+ Coordination Unit
RFM	Responsible Forest Management
RL/REL	Reference Level/ Reference Emission Level

REDD+	Reducing Emissions from Deforestation, Forest Degradation, Conservation of Forest Carbon Stocks, Sustainable Management of Forest, and Enhancement of Forest Carbon Stocks
RPP	Readiness Preparation Proposal
SATIIM	The Sarstoon Temash Institute for Indigenous Management
SEA	Southern Environmental Association
SESA	Strategic Environmental and Social Assessment
SLM	Sustainable Land Management
STACA	Steadfast Tourism and Conservation Association
TAA	Toledo Alcaldes Association
TEG	Technical Experts Group
TIDE	Toledo Institute for Development and Environment
TNC	The Nature Conservancy
TMCC	Toledo Mayan Cultural Council
ToR	Terms of References
UB-ERI	University of Belize - Environmental Research Institute
UN-REDD	UN-REDD Programme
UNCCD	United Nations Convention to Combat Desertification
UNCBD	United Nations Convention on Biological Diversity
UNFCCC	United Nations Framework Convention on Climate Change
WG-ME	Working group on monitoring and evaluation
WIN Belize	Women's Issues Network Belize

Component 1: Organize and Consult

1a. National Readiness Management Arrangements

National Climate Change Governance Mechanisms

Belize first started to take concrete steps in relation to climate change by undertaking its first Climate Change Vulnerability Assessments in the coastal zone, agriculture and water sector in 1994. This effort was augmented in 1997 when Belize participated in the Caribbean Planning and Adapting to Climate Change Program (CPACC). CPACC assisted Belize in its efforts to compile inventories of its coastal resources, make an economic evaluation of those resources and quantify their vulnerability. Belize submitted its First National Communication to the UNFCCC in 2000 and is currently in the process of preparing its Third National Communication. Since then there have been Knowledge, Attitude and Practice (KAP) surveys and public education and outreach efforts. In June 2010, the Government of Belize (GOB) in collaboration with CCAD-GTZ hosted a REDD planning workshop in Belize and this workshop put in motion Belize's quest to develop a REDD+ national program. The Government of Belize has now committed itself to defining its institutional and legal landscape for climate change adaptation and mitigation, focusing on the roles of various actors, existing institutional capacities and governance issues in carrying out mitigation and adaptation activities. In essence the political and administrative systems are being adopted to handle emerging national issues of climate change mitigation and adaptation.

A National Climate Change Committee (NCCC), chaired by the MFFSD, is now established with a cross-section of members from all related Government Ministries and Agencies, private sector, civil society and academia. The NCCC also has the direct participation of the Office of the Prime Minister and is able to advise the government through the Cabinet (Figure 1). The NCCC is comprised of the following members:

1. Ministry of Forests, Fisheries and Sustainable Development
2. Office of the Prime Minister
3. Ministry of Natural Resources and Agriculture
4. Attorney General's Ministry and Ministry of Foreign Affairs
5. Ministry of Finance and Economic Development
6. Ministry of Natural Resources and Agriculture
7. Ministry of Health
8. Ministry of Labour, Local Government, Rural Development and NEMO
9. Public Utilities Commission
10. Environmental Research Institute
11. Association of Protected Areas Management Organizations
12. Caribbean Agricultural Research and Development Institute
13. Caribbean Community Climate Change Center
14. Belize Chamber of Commerce and Industry
15. Belize Red Cross
16. United Nations Development Program
17. GEF Focal Point
18. Prime Minister's Council of Science Advisers

The NCCC is responsible for coordinating and implementing all climate change policies, programs and activities for the Government of Belize and has been in place since 2012. The NCCC has a dual purpose. It is tasked with advising the government on matters relating to national responsibilities with respect to climate change, including relations with the UNFCCC and the Kyoto Protocol and it is also in

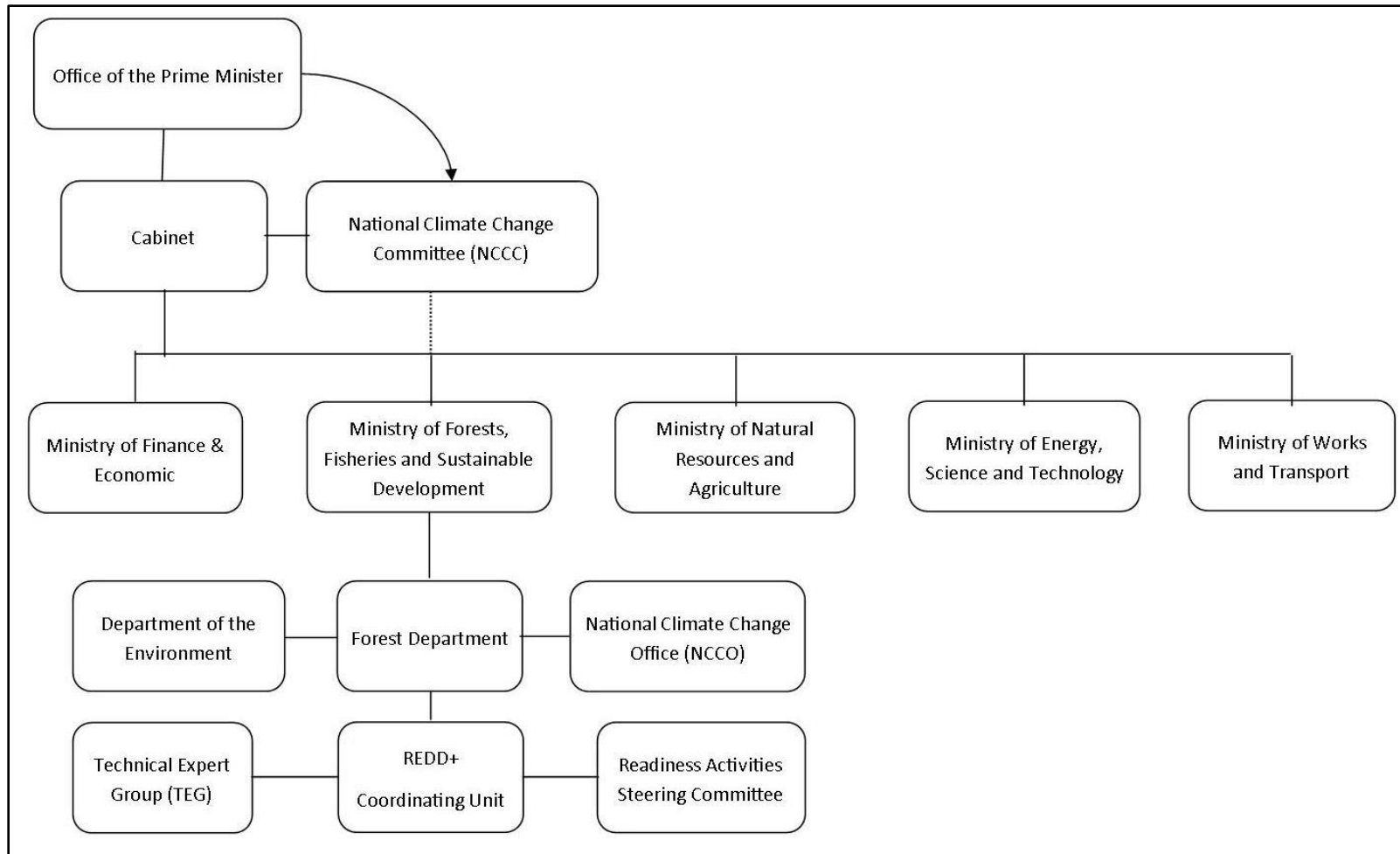
place to guide the implementation of appropriate policies and strategies to address climate change while ensuring economic development. Three functioning sub-committees have been activated, namely the Mitigation Sub-committee, Vulnerability and Adaptation Sub-committee, and the Public Education and Outreach Sub-committee.

The specific roles and responsibility of the NCCC are as follows:

1. Development of an Integrated National policy, strategy and action plan
2. Development of National Positions on Climate Change issues
3. Adopt and effect a strategy for inclusion of climate change in national development plans
4. Capacity Building, institutional and other resources needs
5. Maintain register of climate change related projects, programs and research activities
6. Participate in and monitor resource mobilization and implementation of national action plan
7. Coordinate UNFCCC national communication to ensure compliance with Convention
8. Facilitate Belize's participation in the Convention and its mechanisms
9. Establish sub-committees as necessary to achieve responsibilities
10. Any other tasks or activities within the framework of the Convention

Given its membership, with representation at the highest levels of government, the NCCO is best suited to take on the role of mainstreaming REDD+ into broader national strategies as well as overseeing the coordination of REDD+ activities through the Mitigation Sub-Committee. This also allows policies, legal and institutional arrangements supporting the REDD+ strategy to be designed within the policy framework of relevant Ministries within the Government to ensure inter-ministerial participation. Having the Office of the Prime Minister on the NCCC will ensure that climate change and related matters will have the highest levels of political attention. The Ministry of Economic Development being onboard will also ensure that national development plans and strategies are mainstreamed and that climate change mitigation and adaptation measures including REDD+ will be considered at a national level. Aside from coordinating programs and projects focused on climate change, the MFFSD will lead the development and implementation of REDD+ including the operational aspects of REDD+ readiness activities through the Forest Department.

Figure 1: Institutional Arrangements for the Implementation of REDD+ in Belize



The National Climate Change Office and specifically the Forest Department will work closely together to execute REDD+ readiness activities under the broad oversight and guidance of the NCCC. A comprehensive policy framework to support the integration of climate and development planning, policies, and action across multiple sectors and levels (national and local levels) is being developed to guide the works of the newly established National Climate Change Office (NCCO) which is the Secretariat to the NCCC. The NCCO is staffed by a Climate Change Coordinator (who also serves as the UNFCCC Focal Point), a Principal Climate Change Officer, a Climate Change Officer, a Communications Assistant, a Program Manager, and a Program Assistant.

The NCCO with support from the Caribbean Community Climate Change Center (CCCCC) is currently initiating the development of a National Climate Change Policy, Strategy and Action Plan for Belize. This will be Belize's first overarching strategy to mainstream climate change into development planning and move it away from being regarded as just an environmental issue. It is expected that this document will outline adaptation and mitigation strategies. REDD+ will undoubtedly be a major action step and will therefore form a part of the action plan to be developed. This initiative is being supported by a regional Global Climate Change Alliance (GCCA) project with support from the Global Environmental Facility (GEF) and the United Nations Development Programme (UNDP). A comprehensive policy framework to support the integration of climate and development planning, policies, and action across multiple sectors and levels (national and local levels) to guide the works of the NCCO is also part of the project activities.

Institutional Structure of the Environment and Forestry Sector

The previous Ministry of Natural Resources and the Environment (MNRE) held the responsibility for forest and environmental management in Belize. The MNRE housed, within its respective departments, all major environmental initiatives, including coordination for the Convention on Biological Diversity (CBD), the United Nations Convention to Combat Desertification (UNCCD), and the United Nations Framework Convention on Climate Change (UNFCCC), among others. In Belize the Forest Department is the state agency charged with ensuring sustainable management and conservation of forest resources. The Forest Department had the mandate of REDD+; Convention on Biological Diversity; and the Sustainable Land Management project (implemented in the context of the UNCCD) whilst the Meteorology Department had the mandate for the implementation of the Clean Development Mechanism (CDM), an initiative of the UNFCCC. Following the March 2012 general elections came the appointment/designation of a new Ministry of Forestry, Fisheries and Sustainable Development (MFSSD) which will now house all environmental and climate change-related initiatives. This further strengthens the Government of Belize's commitment to mandating the relevant government agencies to prepare adaptation policy options for their sectors.

The MFSSD is now responsible for the Fisheries Department, the Forest Department and Department of the Environment. The Forest Department has been designated the responsible entity charge with the development of REDD+ program in the country. The MNRE has now been restructured into the Ministry of Natural Resources and Agriculture (MNRA), encompassing land use management with the agricultural sector. Even with its new composition the MNRA will continue to be an important partner for the MFSSD in addressing climate change issues including the development and implementation of policies and strategies at the national level. There are efforts now underway to consolidate overlapping policies and legislation in accordance with climate change commitments via the Policy Planning and Coordination Unit in the MNRA.

Belize is cognizant of the need for open dialogue about programs like REDD+ and has therefore engaged in multi-level and inter-sectoral discussions among its ministries and departments about the country's economic development and climate change mitigation and how this will be enabled through the generation of payments for forest services utilizing a mechanism of sustainable utilization and development. These agencies are also cognizant of the fact that for programs like REDD+ to be effective it is important that collaboration amongst these ministries and departments takes place in order to mainstream resource management strategies and integrate the implementation of readiness activities and the eventual implementation of REDD+. This will ensure that there is a coherent national approach and avoid the duplication of policies or even promulgating conflicting policies leading to the inefficient use of resources and the achievement of limited results. Workshops and high level conferences especially

with key government ministries and decision-makers will be held in order to ensure that they are fully engaged with the process.

Implementation Structure of REDD+ Readiness Activities in Belize

The Forest Department (FD), under the MFSSD, will lead the formulation and implementation of REDD+ readiness activities and will foster collaboration with the relevant ministries and departments including the Climate Change Office to ensure there is high level participation in the development and execution of activities with regards to reduction of emissions from deforestation and degradation. In order to provide an enabling environment for the facilitation of REDD+ activities, it is proposed that the REDD+ Coordination Unit will be established as part of the Forest Department for operational purposes. The R+CU will work closely with the NCCO in planning and executing REDD+ activities. The R+CU will therefore be responsible for:

- Coordination of all REDD+ activities and related projects and programs;
- Promoting the mainstreaming of REDD+ initiatives, activities and products into FD activities;
- Development of proposals for national REDD+ initiatives;
- Plan and oversee relevant research and studies as part of readiness activities.
- Promoting collaboration and partnerships with local and national institutions towards achieving REDD+ objectives;
- Promoting bi-lateral and multi-lateral collaboration for REDD+ in Belize;
- Support public awareness of REDD+ in Belize;
- Present REDD+ at national fora;
- Represent Belize at international fora on REDD+ and Climate Change;
- Seek opportunities for the advancement of REDD+ in Belize.

The REDD+ Project Coordinator will head the R+CU and will report directly to the Chief Forest Officer in the Forest Department. The R+CU will be the permanent operational team for REDD+ nationally, however it will not operate in isolation of other sector agencies within the national framework. In order to ensure collaboration from other sector agencies, key stakeholders will be involved and participate via a proposed REDD+ Readiness Activities Steering Committee (RASC). An interim R+CU has been constituted and will be strengthened upon the approval of the R-PP. The Coordination Unit as it currently stands comprises the REDD+ Project Coordinator (a senior Forest Officer) and three staff foresters. As Department staff, their primary role is to implement the mandate of the Forest Department, but they have been assigned special duties in relation to REDD+. With the approval of the RPP, full time staff will be hired and dedicated solely to the implementation of activities in the RPP 2014-2017. This will in effect be the Project Management Unit (PMU) for the RPP readiness activities. The forest officers within the Forest Department will play a key role in coordination efforts with stakeholders and local communities. They possess the necessary forestry training and understanding of forest policies and governance issues and have established working relationships with related Government departments, the NGO's and CBO's, with which there exists co-management arrangements. In order to further strengthen the R+CU, Specialists such as a GIS Specialist will be retained on contracts to carry out highly technical assignments. The R+CU may also be supported by short-term consultants, specialists, NGO's, CBO's, or international organizations, in order to implement specific activities under the components of the RPP.

As noted above, a Readiness Activities Steering Committee is proposed in order to provide direct oversight and support to the R+CU and engage a cross-section of stakeholders in the project. The RASC will be chaired by the Chief Forest Officer with the deputy chair being the Coordinator of the NCCO. The RASC will include senior personnel from the relevant ministries, private sector, civil society, local communities and indigenous peoples. There will also be representation of women's organization on the RASC. The RASC will be constituted as follows:

1. Forest Department (FD) – Chair
2. National Climate Change Office (NCCO) – Deputy Chair
3. Department of Agriculture

4. Lands and Surveys Department
5. University of Belize- Environmental Research Institute (UB-ERI)
6. Association of Protected Areas Managers (APAMO)
7. Belize Association of Private Protected Areas (BAPPA)
8. Sustainable Forest Management Licensees
9. National Association of Village Councils (NAVCO)
10. Toledo Alcaldes Association (TAA)
11. National Women's Commission (NWC)

It should be noted that the seat for an indigenous people's representative was initially given to the Belize National Indigenous Council (BENIC). This organization was supposed to be the national body representing indigenous peoples in Belize however it was later identified that it was non-functional. The seat has been made available to the Toledo Alcaldes Association, given their current land rights claim, until a functioning representative body can be established. Support will be provided to the indigenous organizations as part of the readiness activities for them to re-establish a collective entity to represent them.

The role of the R+RASC is to ensure that:

- Project Components, objectives and implementation procedures and practices are in line with the governance policies of the Government of Belize and fully coordinated with the priorities of the Ministry of Forestry, Fisheries and Sustainable Development;
- Readiness activities are implemented in accordance with the guidelines of the World Bank and the FCPF;
- The readiness activities engages all stakeholders and are implemented with continuous and strong participation of local communities and other key stakeholders;
- Project resources are allocated and used efficiently.

The responsibilities are:

- Review and approve the Procurement Plan and Annual Project Budget in consultation with the Forest Department and the WB;
- Review, and provide on Terms of References and plan of studies and other activities to be undertaken;
- Approve consultancies and capacity building programs to be implemented under the REDD+;
- Ensure that all safeguard mechanisms are developed and complied with;
- Ensure that consultation and participation plan is developed and implemented;
- Ensure that a Feedback and Grievance Redressal Mechanism is development and implemented.

A Technical Expert Group (TEG) will also be created under the Mitigation Sub-committee of the NCCC with official membership appointments formalized by the MFSSD. The TEG will provide technical advice to the Forest Department and will provide the high level of guidance necessary for the preservation of Belize's forest resources by means of sustainable land use, and sustainable forest management. The Technical Expert Group will be comprised of technical experts with different areas of specialization and includes representation from the government departments, civil society, local communities, academia and the private sector. The composition of a new TEG will be based on the following expertise:

- Agriculture Economist
- Land Use Planning Specialist
- Carbon Finance Specialist
- Monitoring, Reporting and Valuation Specialist
- Conflict Resolution Specialist
- Social Specialist/Anthropologist

The role of the TEG is being evaluated in workshop with current and proposed new members, to be held on November 12th. (Annex 1a). The current mandate of the Technical Expert Group is as follows:

- A. The Technical Expert Group will provide technical and operational guidance to the REDD+ Project Co-ordinator by way of:
 - a. Providing feedback on activities, including draft and final of project deliverables;
 - b. Participating regularly in meetings, consultations, and validation workshops;
 - c. Reviewing and providing feedback reports as requested by the project coordinator.
 - d. Informing the project coordinator of all relevant information which would affect the outcome of project deliverables

- B. The Technical Expert Group will provide high level of guidance on the conservation of forest resources by means of sustainable land use, and sustainable forest management, in particular:
 - a. Providing high level political guidance and orientation for the long-term investment in REDD+ in Belize and the viability of REDD+ schemes as a means of conservation of national forests for the purposes of climate change mitigation and adaptation;
 - b. Endorsing the project documents before they are submitted to the NCCO as formal government policy documents;
 - c. Serving as a focal point within their respective ministries, or entities for the promotion of REDD+ as a viable market mechanism for forest conservation and climate change abatement through carbon sequestration;
 - d. Facilitating the work of the project (national co-ordinator, national and international consultants) and assist with access to archives and information held by their respective institutions.
 - e. Advising the NCCC and the NCCCO on all relevant matters as may be required.

- C. The technical expert group will assist in the creation of the requisite institutional and regulatory conditions to enable compensation mechanisms for the reduction of CO₂ emissions from deforestation and forest degradation by:
 - a. Providing technical guidance on the relevance and adequacy of existing laws and policies for generating, collecting and distributing revenues from REDD+ in a transparent and equitable manner.
 - b. Making recommendations for the adoption of new legislation and policies that would allow for the generation, collection and distribution of revenues from REDD+ in a transparent and equitable manner.
 - c. Providing recommendations for the levels of royalties and taxes appropriate under REDD+.
 - d. Providing recommendations on the adequacy of existing institutions to manage REDD+ funds and the ability to use those funds sustainably.
 - e. Providing recommendations and suggestions for the development of new institutions that can ensure the financial sustainability of benefits generated under REDD+.
 - f. Recommending penalties, sanctions and other compliance measures to be implemented under REDD+.
 - g. Recommending the modalities and criteria for approval of project applications from private and other sub-national activities purported to generate revenues under REDD+.
 - h. Review applications for REDD+ projects and make recommendations for approval or rejection of those projects based on economic feasibility, contribution to national reduction in deforestation targets, and other such criteria.

- D. The Technical expert group will ensure that the highest quality data and information regarding CO₂ emissions from land cover change related to deforestation and forest degradation is available to decision-makers, potential investors, and for reporting on international commitments,

such as the UNFCCC, UNCBD, the UNCCD, and other relevant initiatives. This will be achieved by:

- a. Making recommendations for establishing the minimum criteria for the type and format of data necessary to monitor forest cover change, including quality controls for data collection, in accordance with international standards.
- b. Making recommendations for the establishment of a national monitoring and evaluation responsible for the auditing projects to ensure accurate assessments as well as compliance with commitments to reduce emissions from deforestation and forest degradation (particularly in the long-term) and social safeguards.
- c. Making recommendations for the establishment of a database that provides information about changes in Belize's land use and land cover, including the monitoring of deforestation, as well as institutional arrangements for where such databases should be housed and which institution(s) should manage them.
- d. Making recommendations to formalize the existing national reference level (deforestation rate), ensuring accordance with international standards.
- e. Facilitating the process of designing a national monitoring plan that details a schedule for monitoring, the project specific modalities for monitoring, and procedures for recourse in instances of non-compliance.
- f. Ensuring that the summation of all REDD-plus activities contribute to the real reduction of deforestation at the national level below the national baseline (i.e. avoid leakages).
- g. Participating and advising on the LULUCF sector of the National Green House Gas Inventory reporting process in the context of the UNFCCC.

Feedback and Grievance Redressal Mechanism (FGRM)

A Feedback and Grievance Redressal Mechanism (FGRM) is necessary in order to identify procedures to effectively address conflicts and grievances arising from REDD+ readiness activities including consultation processes and REDD+ implementation. The FGRM can also be used as an information sharing mechanism to respond to queries from the general public. A FGRM can help the implementation process significantly enhance operational efficiency in a variety of ways, including generating public awareness about REDD+ and its objectives; mitigating risks to the initiative by identifying problems early; providing the REDD+ Coordination Unit with practical suggestions/feedback that allows them to be more accountable, transparent, and responsive to the needs of various stakeholders; assessing the effectiveness of internal organizational processes; and increasing stakeholder involvement in the initiative. Grievance is defined for the purpose as an issue, concern, problem, claim (perceived or actual) or complaint that an individual or group wants the project to address and resolve.

In developing the FGRM the following key principles will be taken into consideration:

- A. Participatory and Social Inclusion - All stakeholders in the REDD+ initiative (community members, members of vulnerable groups, government agencies, civil society, private sector and the media) are encouraged to bring grievances and feedback to the attention of the lead authorities. Special attention therefore is to be given to ensure that poor and marginalized groups, including forest dependent communities, indigenous people and women, are able to access the FGRM.
- B. Simplicity and Accessibility - Procedures to file grievances and seek action are to be simple enough that all stakeholder groups can easily understand them. Stakeholders should have a range of contact options including, at a minimum, a telephone number, an e-mail address, and a postal address. The FGRM must be accessible to all stakeholders, irrespective of the remoteness of the area they live in, the language they speak, and their level of education or income. The FGRM must not use complex processes that create confusion or anxiety (such as only accepting grievances on official-looking standard forms or through grievance boxes in government offices) and is culturally appropriate.

- C. **Responsiveness and Efficiency** - The FGRM is to be designed to be responsive to the needs of all stakeholders. Accordingly, persons handling grievances are trained to take effective action upon, and respond quickly to, grievances, suggestions and other feedback. The follow-up steps are clearly articulated to the person or persons registering the complaint.

Developing an FGRM

A rapid assessment of existing formal bureaucratic procedures, informal feedback and grievance redress mechanisms will be undertaken. The assessment will consider the needs of the project, key stakeholders and the general public in determining appropriate levels and procedures. Existing mechanisms will be incorporated into the customized FGRM and strengthened where necessary.

The initial assessment to develop the structure for the FGRM will include the engagement of stakeholders in interviews and separate and individual meetings. Stakeholders will be given an opportunity to present suggestions and ideas in writing or otherwise to the R+CU on the development of the FGRM. The results of the study including results of the assessments of existing mechanisms and a proposed structure will first be presented to the RASC and TEG for their feedback and approval. The final structure must include alternative methods of dispute resolution for consideration and adoption.

It is important for stakeholders and the general public to become aware of the FGRM once it is finalized. They should become aware of how it functions and how to access it. The FGRM will be presented and shared during consultation activities. Informational materials developed on REDD+ as part of readiness activities will also include information on the FGRM. For the FGRM to work effectively, the associated staff and officers of the R+CU must be aware and are able to function in their role within the FGRM. Workshops will be held to train all officers who are expected to be involved in the operation of the FGRM will also be carried out.

Proposed FGRM Framework

The FGRM will be developed after an initial assessment by ensuring that it is practical and applicable to its purposes by taking into consideration how grievance approaches can be accessible. This includes developing a field level mechanism incorporating customary approaches to grievance redressal where feasible as well as the formal, judicial and administrative systems that exist in the country. Similarly regional mechanism such as the Inter-American Commission of Human Rights must form part of the overall FGRM. The development of the FGRM must take into consideration the role of the R+CU, the Forest Department and the MFSSD in general. A clear point of grievance uptake must also be identified.

The FGRM is not intended as a substitute for existing national legal and administrative systems. If operated effectively however it may lessen the need to utilize more formal legal systems. Stakeholders with grievances may choose to firstly exhaust the FGRM before taking their case to the formal legal and administrative systems. Similarly, they may decide not to utilize the FGRM and take their case directly to those systems. The FGRM therefore must include clear processes within the Belize Judicial systems and other mechanisms such as the Office of the Ombudsman established by the Ombudsman Act, Chapter 5 of the Laws of Belize.

In order to function effectively, the FGRM must address concerns promptly and fairly in compliance with the procedures outlined at no cost. There must also be absolutely no reprisals against complainants and the participation of stakeholders in the mechanism does not diminish their rights or entitlement to benefit or engage in the consultation process in any way. There are six steps in the proposed FGRM process.

- a) **Registration** - Receiving and registering complaints is a simple process where local people can inform the uptake center about concerns directly and if necessary, through third parties. Once a complaint has been received, it must be recorded in the complaints log or data system. The log can be kept in hardcopy or electronic form. Various types of grievances typically require different follow-up actions—for example, some grievances can be resolved by means of a simple explanation or apology, while others may require more extensive investigations. Therefore, grievances will be categorized, assigned priority, and routed as appropriate. Uptake centers must be clearly identified for complaints to be registered.
- b) **Sort and Process** - This step determines whether a complaint is eligible for the grievance mechanism and its seriousness and complexity. The complaint will be initially screened

however; this will not involve judging the substantive merit of the complaint. It is important to determine whether a complaint is eligible or not:

- i. **Eligible complaints** may include those where:
 - The complaint pertains to the REDD+ initiative and the R-PP consultation process.
 - The issues raised in the complaint fall within the scope of issues the grievance mechanism is authorized to address.
 - The complainant has standing to file.
- ii. **Ineligible complaints** may include those where:
 - The complaint is clearly not REDD+ related.
 - The nature of the issue is outside the mandate of the grievance mechanism.
 - The complainant has no standing to file.
 - Other Ministry or administrative procedures are more appropriate to address the issue.

All complainants must be informed of the decision and the reasons for the rejection of their complaint. All complaints whether eligible or not, must be logged for reference.

When evaluating and investigating complaints the parties, issues, views, and options should be clarified and clear procedures will be developed to undertake the following:

- Identify the parties involved.
 - Clarify issues and concerns raised by the complaint.
 - Gather views of other stakeholders, including those of Forest Department staff.
 - Classify the complaint in terms of its seriousness (high, medium, or low). Seriousness includes the potential to impact both the initiative and the stakeholder community. Issues to consider include the gravity of the allegation, the potential impact on an individual's or a group's welfare and safety, or the public profile of the issue. A complaint's seriousness is linked to whom in the program's management needs to know about it and whether the Minister responsible is informed.
- c) Acknowledge and Follow Up** - When a complaint is registered, there must be clear procedures to acknowledge its receipt in a correspondence that outlines the grievance process; provides contact details and, if possible, the name of the contact person(s) who is responsible for handling the grievance. Response should be time and should be specified. Complainants should then receive periodic updates on the status of their grievances.
- d) Evaluate, Investigate and Take Action** - This step should involve gathering information about the grievance to determine its validity, and resolving the grievance. The merit of grievances should be judged objectively against clearly defined standards such as the Free, Prior and Informed Consent principle, legal and administrative requirements of the Ministry and guidance provided by the Forest Carbon Partnership Facility (FCPF). Grievances that are straightforward (such as queries and suggestions) can often be resolved quickly by contacting the complainant and providing an appropriate response. Grievances that cannot be resolved at the field level should be referred to the R+CU immediately.

e) Monitoring and Evaluation

The FGRM should be monitored and evaluated to determine the extent of its effectiveness in responding to the needs of the stakeholders for the redressal of their grievances or response to their queries. A report to the RASC on FGRM activities should be prepared regularly. The reports should include the following indicators:

- Number of complaints/ grievances registered;
- Percentage of grievances resolved;

- Percentage of grievances redressed within stipulated time period;
- Time required to resolve complaints (disaggregated by different types of grievances); and
- Percentage of complainants satisfied with response and grievance redress process.

f) Feedback and Communication

The results of the FGRM must also be publicized to ensure transparency. This includes the preparation of reports that are submitted to the RASC and the NCCO as well as such reports being made available to the public through the most appropriate platform.

Budget 1a: Summary of National Readiness Management Arrangements Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands US\$)				Total
		2014	2015	2016	2017	
Formalization of NCCC	Capacity Building Workshops	10	10			20
	Meetings of NCCC	1	1	1	1	4
Engagement of Key Stakeholders	Planning Workshops with key government ministries/agencies	5	5	5	5	20
	Planning Workshops with Private Sector and Civil Society	5	5	5	5	20
	Institutional Strengthening for IP representation	10	2	2	2	16
Project Oversight and Guidance	Readiness Activities Steering Committee	5	5	5	5	20
	Technical Expert Group	5	5	5	5	20
	Capacity Building Workshops	10	10	5	5	30
REDD+ Coordination Unit within the Forest Department	REDD+ Program Director (R+ CU)	6	6	6	6	24
	FCPF Project Director	25	25	25	25	100
	REDD+ Technical Officer (R+ CU)	20	20	20	20	80
	REDD+ Communications Officer (FCPF 2 years)			20	20	40
	FCPF Project Administrative Officer	15	15	15	15	60
	Office Space	80	2	2	2	86
	Office Equipment	40	5	2	2	49
	Meetings & Communication	10	10	10	10	40
	Mobility –transportation and operation expenses	70	5	5	5	85
	Coordinate & Execute Public Relations & Outreach Activities	10	10	5	5	30
	Training	40	30	20	10	100
Total		367	171	158	148	844
Government		63	63	63	63	252
FCPF		255	77	81	81	552
UN-REDD Programme (if applicable)						
Other Development Partner 1 (GEF-KBA)				20	20	40
Other Development Partner 2 (CCAD/GIZ REDD+)						
Other Development Partner 3 (name)						

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

This section describes the information sharing, awareness raising and consultation activities that have already been conducted in preparation and finalization of the RPP and those planned for the readiness preparation phase.

Sectoral Approach to Consultation

Over the years there have been on-going discussions and collaborations related to protected areas management and forest management in Belize. Belize is exemplary for the working relationships among the NGOs, CBOs and local communities and Government departments in environmental protection and the management of protected areas. The local communities play key management roles in the creation and stewardship of many of the established protected areas in Belize and most recently in the management of community lands for sustainable timber production; therefore it is important for continued consultation and participation to take place during the implementation of the R-PP with these critical actors. There is however a solid foundation on which engagement can take place.

The Forest Department has been instrumental in several of the major national consultations on forest use and planning so far, having spear-headed the consultation on the revision of the National Forest Policy in 2011/12, the National Land Use Policy and Planning Framework, the National Protected Areas Policy and System Plan, the National Assessment of Drivers of Deforestation and Forest Degradation and now the development of the R-PP. A fortunate outcome of this approach to stakeholder engagement is that the department has established sound relationships with the network of stakeholders extant in Belize. Please refer to Annex 1b-Partners/Key Actors Identified for a listing of these stakeholders.

REDD+ Stakeholder Mapping

It is important that key stakeholders of REDD+ be identified and considered in order to ensure that the right persons, groups and organizations are made aware of the initiative as well as have the opportunity to respond and provide input into the design process. Stakeholders for this purpose are defined as actors (groups or individuals) who have a social, cultural or economic interest in the forested areas of the country, may affect or be affected by any REDD+ program and have the power to respond or negotiate with strategic aims of the initiative given its key components. In order to ensure that there is broad consideration for all potential stakeholders, it is important that the functionality of the forests in terms of socio-economic uses be identified and matched with the corresponding stakeholders. This is especially critical given that the basis of any REDD+ program or project is directly connected to standing forests and the tangible and intangible goods and services they provide.

After assessing the potential for REDD+ Zones for the country based on forested areas and hotspots for degradation, the initial actors map developed at the outset of the development of the R-PP and considering the socio-economic functionality of forests, the following key stakeholders for the REDD+ are identified according to the following categories:

1. Government Agencies – This category covers Ministry and Agencies whose work is directly related to the initiative or maybe impacted or have an impact on the implementation of the initiative. This includes the Ministry of Natural Resources and Agriculture, Ministry of Economic Development and other government agencies who have a role in the management of Belize's forest both in terms of conservation and development.
2. Civil Society Organizations – These are mostly made up of co-managers of terrestrial protected areas and organizations working in forest conservation. This also includes agencies and organizations that focus on gender issues.

3. Private Sector – The private sector category is made up primarily of the agri-business sector but also include tourism, forestry and local enterprises. There are several major agriculture industries in the country that have a large footprint in terms of land use. This includes the sugar, citrus, bananas and livestock sectors. This also includes large-scale Mennonite farmers in western and northern Belize who are dominant in agricultural production especially cattle and grain.
4. Rural Communities – This category includes rural communities that occupy forested areas or buffer and utilize forested areas based on their reliance on subsistence and small scale agriculture as their primary means of livelihoods. There are 192 villages in Belize each having its own system of local governance through Village Councils.
5. Indigenous Communities - This category includes indigenous communities. Most of the villages that self-identify as indigenous can be found in southern Belize mainly the Toledo District. There are approximately 39 Maya villages in Toledo led by the customary Alcalde System. The Alcalde Assembly forms the Toledo Alcalde Association that is run by an Executive Board. Indigenous communities are some of the most forest-dependent communities with the use of natural resources intertwined in the social and cultural lifestyles.
6. Academia – This category has to do with tertiary level institutions that incorporate natural resource management and sustainable development in their programs. They participate in and provide support to initiatives such as the REDD+. Their role in a REDD+ program will need to be further defined so as to build on their strength as centres of learning and training.

Initial Awareness Raising and Consultation with Stakeholder Groups

The initial awareness raising and consultation process undertaken considers various principles and guidelines, including the principle of two way communication, guidelines for incorporating environmental and social considerations into the process of getting ready for REDD+ by the guidelines developed by the UNREDD and the World Bank.

Consultations to formulate the R-PP have taken place under a range of circumstances and institutional settings. The REDD+ concept, for instance, was presented at a Measurement, Reporting and Verification System (MRV) workshop held on December 6th, of 2011. This workshop had the participation of NGO's, private sector representative, international organizations, and key technical experts from the Forest Department and other Government departments. The workshop provided an interactive environment for all sectors represented to identify existing baseline information necessary for REDD+ implementation in Belize as well as identify information gaps.

There were also several meetings with selected proposed members of the TEG to discuss the potential of REDD+ in Belize and the way forward. These proposed members of the TEG were instrumental in the drafting and reviewing of various components of the initial draft of the R-PP during focus group discussions and interaction via email and telephone conversation. It is expected that the members of the TEG will continue to play the important role of oversight and guidance during the implementation of the R-PP. It was realized that the Minister responsible for Forestry in Belize needed to be engaged, and involved in the decisions of how the R-PP strategy will take shape and be implemented, therefore a formal presentation was given to the Minister for her insight and endorsement. Also, a study related to the REDD+ initiative that had more stakeholder involvement was carried out by Garcia et al (2011)¹. The methodology employed for this activity included identification of "hotspots" of deforestation around the country, via the use of GIS, doing a meta-analysis of existing literature, conducting surveys, focus groups, in-depth interviews, key informant interviews, literature review and a stakeholder's workshop.

It is important to note that the R-PP also benefited from the work done under recently concluded initiatives which had extensive consultations such as the National Land Use Policy and Planning Framework; the National Protected Areas System Policy and Plan; the National Assessment of Drivers

¹ Garcia et al. 2011. Identification of Deforestation and Forest Degradation Drivers in Belize.

of Deforestation; and the National Forest Policy workshop under the National Forest Program (NFP) Facility.

In June 2013 through the CCAD-GIZ Program, The Nature Conservancy (TNC) was hired as a consultant to develop and carry out a plan for consultation on a national level on the draft R-PP.

Objectives of Initial Consultation

Participation and engagement is critical to developing viable REDD+ strategies and implementation frameworks and the design phase of the R-PP provides an opportunity for this to be initiated early in the process. A national REDD+ program also requires extensive information sharing with and consultation among various stakeholders including multi-sectoral government agencies, civil society, private sector, indigenous peoples and development partners. Consultation therefore not only ensures wide-ranging acceptance and awareness of REDD+ but also builds trust and support in the process of developing a national REDD+ programme through the development of an R-PP that takes into account the varying perspectives of all stakeholders.

The objectives of consultation process on the R-PP at this stage were the following:

- 1) **Stakeholder Feedback and Input** - *To gather, process and incorporate stakeholders' feedback and input to further develop the R-PP.* The core components of the R-PP will be discussed and feedback sought from the various stakeholder groups identified. Other key issues pertaining to the core components from the perspective of the stakeholders will also be addressed.
- 2) **Establish Communication Process** - *To establish a two-way communication process through which individuals and communities are informed about REDD+ activities and get the opportunity to fully engage in REDD+ planning and implementation activities.* This consultation is expected to provide opportunities for information sharing and dialogue with representative groups of stakeholders in order to prepare the way for broader consultations later during the implementation of readiness activities.
- 3) **Develop an Inclusive R-PP** – *To recognize and integrate the diversity of stakeholders' interests and views in order to enhance the quality of decision-making and planning processes by ensuring broad-based stakeholder participation.* This diversity of interests should be reflected in the design of the R-PP and ensuing readiness activities. Furthermore, this is especially important for forest-dependent and indigenous communities who traditionally rely on forests for their social and economic well-being but often have limited voice.

Early Consultation and Information Sharing Activities

The consultation led by TNC occurred from August – September 2013. The process engaged stakeholders at various levels from government to communities to indigenous people in the Toledo District. Stakeholders were broken down into two large groupings namely, i) Institutional - government agencies, private sector and NGOs, ii) Local Communities – rural communities including indigenous peoples. One centralized workshop was held for institutional stakeholders. Rural communities in the North, Central and Southern regions of the country were broken down into zones. Consultation workshops with leaders of indigenous communities including representatives of women and youth were held separately. In meeting with indigenous peoples, a consultation protocol was developed with the TAA prior to undertaking orientation and consultation activities.

There were a total of 239 individuals invited representative of 71 organizations/GOB departments, and 91 villages that were involved in consultation activities. A total of 6 workshops were held to socialize the RPP and to allow stakeholders to provide input making the process transparent and representative. This includes one set of workshops for indigenous community leaders (Toledo Alcaldes Association) in the Toledo District and one focus group session with indigenous women and youth mainly from the Toledo Maya Women's Council and the Maya Youth Coalition. At the first Technical Consultation held a total of 31 organizations were represented with a total of 44 participants including Governmental agencies, protected areas co-managers and NGO's, and various representatives from the private sector.

The stakeholders were also categorized by the types of issues that were relevant to them in the context of REDD+ and the R-PP and these were discussed during workshops

Table 1: Stakeholder and Critical Issues

STAKEHOLDERS	ISSUES TO ADDRESS
Government Ministries/Agencies	<ul style="list-style-type: none"> • How the R-PP fits with their ministerial and statutory agenda and jurisdictions. • How they will participate and the role they will play in R-PP implementation activities. • Forest management, drivers of deforestation, climate finance, monitoring and evaluation, community participation and social and environmental safeguards.
Civil Society Organizations (Environmental)	<ul style="list-style-type: none"> • Forest management, drivers of deforestation, monitoring and evaluation, community participation and social and environmental safeguards. • Feedback and Grievance Redressal Mechanism during consultation process and readiness activities.
Private Sector	<ul style="list-style-type: none"> • Role of agriculture and extractive activities in deforestation and forest degradation. • Role in development of national REDD+ Strategy. • Participation in consultations and other implementation activities. • Opportunities and potential benefits from REDD+. • Feedback and Grievance Redressal Mechanism during consultation process and readiness activities.
Forest Dependent Communities (Indigenous)	<ul style="list-style-type: none"> • Given the current state of affairs between the Maya Leaders Alliance, the Toledo Alcaldes Association on one hand and the Government of Belize on the other, land tenure, resource-use rights and property rights should be covered. This will likely be a topic that IPs will want to have some clarity on and how it will be considered in Readiness Activities and in the development of a National REDD+ Strategy. • Adherence to FPIC during the R-PP consultation and readiness activities. • Social and environmental safeguards that will be put in place and the role of IPs in the development and implementation of these measures. • The livelihoods of IPs is also other important issue to cover. Their rights to land and carbon assets based on their access and control of resources. These of course must be in conjunction with applicable international obligations in regards to IP rights. • Feedback and Grievance Redressal Mechanism during consultation process and readiness activities.
Forest Dependent Communities (Non-Indigenous)	<ul style="list-style-type: none"> • Drivers of deforestation. • Social and environmental safeguards that will be put in place and their role in the development and implementation of these measures. • Livelihoods and rights to land and carbon assets based on their access and control of resources. • Feedback and Grievance Redressal Mechanism during consultation process and readiness activities.
Academia	<ul style="list-style-type: none"> • Opportunities and role in monitoring; research, national strategy and national REDD+ capacity building. • Social and environmental safeguards that will be put in place and their role in the development and implementation of these measures. • Opportunities in National Forest Monitoring System.

Consultation with Indigenous Peoples (Mayas)

A specific focus of the consultations looked at the Indigenous Peoples (Maya) of the Toledo District. Three workshops were conducted with the recognized leaders and representatives of the 39 Maya villages and one workshop was conducted with Maya women and youths. The central goal of the consultation process was to ensure that Belize's Readiness Preparation Proposal is developed in a transparent and participatory process, and the rights of Belize's Indigenous communities, and that their views and ideas inform Belize's REDD+ initiative in the spirit of the principles of Free, Prior and Informed Consent even though Belize is not a signatory to the UNDRIPS or ILO 169.

To establish clear channels for engagement with the Indigenous representatives, an initial information sharing session was held with the executive body of the Toledo Alcaldes Association. The Toledo Alcaldes Association is the recognized representative body for the 38 Maya communities of the Toledo District and parts of Stann Creek. Each of the Maya communities has two traditional leaders, Alcaldes, who make up the membership of the association. An outcome of the initial session produced the protocols for engagement with the recognized leaders of the Maya people that is based on Maya traditions and forms of leadership. It was established that these groups of leaders be consulted to draw out the input and views of the Maya communities on REDD+ and the R-PP. Two subsequent workshops were held with the Alcaldes and Chairpersons. These workshops were held on September 13th and 25th 2013. A workshop was held for Maya women and youths on October 12th, 2013.

The workshops were conducted by a consultant who is experience in working with Indigenous communities. The workshops involved audio visual activities, focus group working sessions, and brainstorming sessions. Educational materials including the Belize's draft R-PP was distributed to the participants. The draft R-PP was presented to the participants by the REDD+ Coordinating Unit. All workshops were conducted in English, Maya Q'eqchi and Mopan to ensure that all participants can fully and actively engage. The orientation and consultation of indigenous peoples on REDD+ and the R-PP were held as follows:

- Session 1 - Information Sharing Session with the Toledo Alcaldes Association's Executive Body
- Session 2 - Indigenous Peoples' Representative Orientation Workshop with the Alcaldes and Chairpersons of the 39 Maya villages.
- Session 3 – Indigenous People Representatives Consultation Workshop with Alcaldes and Chairpersons from the 39 Maya Villages
- Session 4 - Indigenous Women and Youths Consultation Workshop with Toledo Maya Women's Council and Maya Youth Coalition

Key Issues and Concerns from Initial Consultations

Gender Participation - One of the major issues identified is the low participation of women from rural areas. Although many women now are members of village councils it does not provide sufficient space for women to become involved and have an opportunity to provide input in the process. Similarly for indigenous women, cultural barriers exist that severely limits their participation. There are women's groups and CBOs in local communities however they are not in all communities and not very many in general. Also lacking is representative organization of women to represent women's interests. Most of the organizations in place are led by men and so their participation does not have the same concerns. In the interim working with local women's group is still the best way to reach women and get them involved. There are a few other organizations and agencies that represent women such as the National Women's Commission and WIN-Belize however their reach into rural areas is limited. Nonetheless, women continue to work closely with forest resources for their food and livelihoods and as such their engagement is necessary and important.

Education and Awareness - There is also limited public knowledge on climate change and its impact on the environment and society. For many, the consultation workshops were the first time they were able to gain new knowledge and understanding of the subject. There is a need for greater public education on climate change and its impact and the role of REDD+ in mitigating climate change. The public can also benefit from learning more about REDD+ and how it is expected to work. For community level consultations, 1-2 weeks prior to the workshops the participants were sent Climate Change and REDD+ brochures for them to get basic information on the topics to be discussed in advance. At the workshop a special community targeted presentation was given by the National Climate Change office on the same topics.

Indigenous Land Rights - The other major issue identified through the process is that of land rights for indigenous Mayas of Toledo. The consultation process was overshadowed by the ongoing struggle between the Mayas and the Government of Belize in the Courts to have their land rights recognized. On July 25th 2013, the Belize Court of Appeal affirmed the rights of Maya people to their ancestral territory but stated that the Government of Belize is not obligated to protect those rights. Both the Government of

Belize and the Mayas have cross-appealed the matter to the Caribbean Court of Justice, Belize's final court of appeal, located in Barbados. They clearly stated that they would rather have the Government of Belize resolve their land rights claims before they become active participants in REDD+ as this would ensure their security of tenure over their territory. The Government, through the Forest Department has responded to their position by holding a meeting with them to ensure that dialogue continues over their involvement in REDD+ readiness activities. Aside from land rights issues, indigenous and non-indigenous communities' primary concern with REDD+ is whether or not it will negatively affect livelihood activities that depend on the forest.

Drivers of Deforestation - All consultation groups identified similar direct causes of Deforestation and Degradation with the highest ranked being as Urban Expansion and Agriculture/Aquaculture at Very High. Logging was ranked as the main direct driver of Deforestation with a ranking of Very High. The ranking was based on assessing the severity and the scope of impact the driver would have on forests. As there is more and more demand for food and less land becomes available in other countries, Belize is being targeted as a potentially lucrative investment area for agricultural industries. The main underlying drivers for these drivers were seen as food security and poverty, population growth and weak institutional capacity to monitor and enforce regulations already in place.

Rural Livelihoods – one of the main concerns expressed especially among indigenous peoples was the right to continue traditional farming methods as their livelihoods is heavily dependent land and forests. Other non-indigenous communities shared similar concerns and proposed potential ideas that can assist in addressing some of the related challenges. These include capacity building, diversification of sustainable livelihoods, public outreach, community planning, skills training and development of social programs especially in education.

Further Activities to Strengthen Engagement and Consultation

- Assess the role of women in terms of access, use and management of resources including forests as there is need for greater engagement and representation of women in the development of strategies, plans and activities regarding sustainable forest management. This should include specific steps to facilitate women's participation in consultation and planning activities.
- Provide support to the National Association of Village Councils in terms of capacity building in order for them to be able to integrate REDD+ activities within their own mandate and support the participation of rural communities in the development and implementation of readiness activities. A similar type of engagement will need to be done for indigenous peoples including the Toledo Alcaldes Association, The National Garifuna Council and other related groups.
- Continue to meet and dialogue with large-scale producers including the Mennonite communities in order to strengthen relationships that can benefit the development and implementation of REDD+ while maintain agriculture productivity. This engagement will happen with their representative organization already in place.
- The experiences and lessons learned in the initial consultations will be integrated into a communication and outreach strategy. The implementation of consultations activities will be as the consultation plan outlined in the next component.

Since communication, public awareness and consultation are key factors for success in the RPP implementation process, significant effort will be spent on such activities. Therefore it is considered practical and necessary to have on board the R+CU a qualified specialist in communications and public awareness. This individual will have responsibility to develop the communications and consultations strategies, plans and activities (in conjunction with the TEG) and also to ensure the efficient implementation and delivery of these. Having the requisite skills to oversee this task should certainly contribute to the likelihood of creating the awareness among all stakeholders.

Budget 1b: Summary of Information Sharing and Early Dialogue with Key Stakeholder Groups Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands US\$)				
		2014	2015	2016	2017	Total
Development, consultation and planning of REDD+ Communication Strategy	Workshops, meetings and outreach costs	5	5	5	5	20
	Gender Study and Plan on enhancing women's participation in forest management	15				15
	Elaboration and publication of national REDD+ Communications Strategy	40				40
	National Planning Workshops	10				10
Implementation of the REDD+ Communication Strategy	Implementation of Communications Strategy	50	45	40	30	165
	Meetings and Workshops	5	5	5	5	20
Total		125	55	50	40	270
Government						
FCPF		125	55	50	40	270
UN-REDD Programme (if applicable)						
Other Development Partner 1 (GEF)						
Other Development Partner 2 (CCAD/GIZ REDD)						
Other Development Partner 3 (name)						

1c. Consultation and Participation Process

Approach to Consultation

Participation and engagement of stakeholders is critical to developing viable REDD+ strategies and implementation of readiness activities. A national REDD+ program also requires extensive information sharing with and consultation among various stakeholders including multi-sectoral government agencies, civil society, private sector, indigenous peoples and development partners. Stakeholders are those individuals and groups that live in and/or have a social, cultural or economic interest in forest and adjacent lands, and those that may be affected either negatively or positively by proposed or enacted REDD+ activities. The consultation plan outlined in this section seeks to establish the aims of the consultation process by outlining its objectives, identifying issues to consult on, the role of stakeholders and establish the terms of the consultation. Equally important is the establishment of the Feedback and Grievance Redressal Mechanism (FGRM) for the consultation process.

The consultation and participation plan will attempt to reach each identified sector and groups of stakeholders through their various representatives. In terms of government ministries and agencies this will be through the Chief Executive Officers, heads of departments or senior technical officers assigned to engage in the initiative. A similar approach will be used for civil society organizations. Given that most of the stakeholders are organized through established organizations and associations, they will be engaged through their own institutional structures. Local communities, specifically local communities from the rural areas, will be invited to participate through their formally established Village Councils, District Associations and National Association. Indigenous Mayas will be represented by the Toledo Alcaldes Association (TAA) and Alcaldes of the respective communities. Other indigenous groups will also be engaged in the same way. They will be given the opportunity to select other indigenous organizations to represent the interests in the consultation if they so choose. Village Council Chairpersons of indigenous communities will also be invited to participate.

1. Aims of the Consultation Process

The Consultation and Participation Plan is a center-piece in the national process in getting ready for REDD+. The diagnostic assessments of the direct and indirect drivers of deforestation, analysis of social and environmental considerations, assessment of risks and potential impacts, identification of institutional capacity needs, and establishing safeguard mechanisms must all be done in a collaborative and an inclusive manner. The REDD+ program must have the ownership of all stakeholders including the government. The National Consultation and Participation for REDD therefore seeks to achieve the following:

- a) Improve the quality of decision-making process by capturing the experience of specialized civil society organizations, private sector, public agencies, Indigenous Peoples groups (IPs) and other similar groups;
- b) Tap the knowledge of IPs and other civil society organizations (CSOs) that work at the community level;
- c) Strengthen the voice of the poor and the marginalized by consulting with the membership of such groups;
- d) Promote sustainability for proposed government reforms, projects, programs, and policies to advance readiness;
- e) Appreciate the various needs of different population groups, including gender, ethnic, socio-economic, or geographical distinctions;

- f) Set the foundation for broad-based participation in the ensuing design and implementation of development interventions; and
- g) Assist governments in increasing transparency, public understanding and citizen involvement in development decision making.²

2. Design of Consultation and Participation Plan

Public Awareness and Capacity Building

The Forest Department is committed to making information about its programmes and operations available to the public. The Department considers public access to information a key component of effective participation of all stakeholders in the implementation of REDD+ activities. Before stakeholders can be engaged there needs to be a round of public awareness and information sharing consultations and education and communication campaigns that build local capacity to ensure that they can make meaningful contribution to the REDD+ program. This will involve providing them with updated information so that they have a solid understanding of climate change issues and REDD+ which will allow them to engage in the consultations more effectively. Specifically, capacity building activities will focus on three key issues:

- a. Promoting awareness about the impacts of avoided deforestation and forest degradation
- b. Building understanding of the technicalities of REDD and of trade-offs involved; and
- c. Promoting the active participation of local communities in identifying context-specific solutions and strengthening their role in decision-making and planning processes.

In tandem the awareness and education campaigns aimed at the general public, capacity building at all levels including government officials foresters, NGOs, CBOs, Private Land Concessionaires, and indigenous people will also be undertaken. In terms of indigenous people, this will form part of their informed participation which will also facilitate the development of safeguards under the ESMF.

An equally important part of consultation and effective inclusion in any participatory process is ensuring that the right information reaches the right people, and in the right form. Therefore the Communications Specialist of the R+CU will take on the responsibility of tailoring REDD outreach programs to reach these age specific groups. He/She will also tailor who will participate, where and when, so as to achieve maximum impact in both directions. The focus of communication efforts will be to:

- a) Ensure that information prepared and disseminated is audience-friendly regardless of the type or group of stakeholders being considered;
- b) Determine the best channels and media as outlined above to reach target groups based on the accessibility;
- c) Disseminate information in a manner so determined to be the most appropriate according to the interests of and accessibility to the material by the target audience;
- d) Determine the means that would best allow the target audience to feedback their ideas and opinions into the process for consideration and incorporation.

Lines of Communication

In order to have effective communication with the key partners who will have an active role in REDD+, a defined channel of communication will be developed for the following target individuals and or group(s) :

² *Consultations with Civil Society - A Sourcebook*
(2007)<http://siteresources.worldbank.org/INTRANETSOCIALDEVELOPMENT/873204-1111663470099/20489462/ConsultationsSourcebook.pdf>

- Internal - Staff of Forest Department, R+CU, TEG members, RASC, NCCC members.
- National – Belizeans and the general population as a whole along with Government Ministries, agencies, NGO's, CBO's, civil society groups, local communities organizations and indigenous people, education institutions, private sector and
- International – external communities and international partners

In order to reach a broad scope of stakeholders and the wider public a variety of communication mediums will need to be used. The local media in Belize serves as the main portal of information for most citizens. In order to take advantage of the radio and television coverage available in Belize and to get information out at a national level, press releases, video clips and editorials will be prepared and distributed. It is also proposed that a quarterly newsletter from the office of the R+CU be generated and shared for public viewing. This REDD+ newsletter can also be posted online on several partner organizations websites. Finally, a Belize REDD+ website and Facebook page will be developed where online forums can be held and the latest REDD project data can be viewed.

Stakeholder Engagement

The core components of readiness will be refined and implemented by engaging various stakeholders at different times. Critical junctures from the key components are highlighted in the table below and the expected level of stakeholder participation is also indicated. It is important that all these critical junctures are addressed as it will ensure that there is informed participation from all stakeholders as this is also intended to foster country ownership over REDD+.

Table 2: Types of Stakeholder Consultation

Critical Juncture	Stakeholder Participation
A. Stakeholders are informed about REDD+ and the R-PP and are able to effectively participate.	<ul style="list-style-type: none"> • Stakeholders have access to relevant information on REDD+ in a culturally appropriate manner and have adequate time to formulate their input.
B. Baseline setting, local drivers of deforestation identification, preliminary forest management plan.	<ul style="list-style-type: none"> • Stakeholders provide input in the analysis of local drivers of deforestation preliminary forest management plan/ preliminary program design.
C. Involvement in strategy/program design including changed forest use and benefit sharing arrangements.	<ul style="list-style-type: none"> • Stakeholders provide input in all aspects and details that directly affect rights holders, especially benefit-sharing arrangements and forest use practices targeted for change.
D. Strategy/program design builds on existing local knowledge and skills and institutions.	<ul style="list-style-type: none"> • Stakeholders provide input in design, implementation, management and M&E of strategy/program. • Free, prior and informed consultation of indigenous people is obtained and international conventions are adhered to where required.
E. Establishment of safeguard mechanisms for environmental and social considerations.	<ul style="list-style-type: none"> • Stakeholders provide input into assessments, participate in planning mitigation activities. • Women and youth participate in the planning of managements to safeguard their interests. • Local communities and indigenous people provide input on how local benefits will be determined and distributed.
F. National legal and policy framework for established for REDD+ programs are established.	<ul style="list-style-type: none"> • Stakeholders and their rights and interests are identified and consulted. This includes indigenous peoples, forest-dependent communities and other vulnerable groups.

Critical Juncture	Stakeholder Participation
G. An effective feedback and grievance redressal mechanism is developed and used.	<ul style="list-style-type: none"> Stakeholders have an input in the establishment of a grievance mechanism that serves both local and national needs.
H. The governance of the REDD+ Strategy/program is transparent, effective and accountable.	<ul style="list-style-type: none"> Stakeholders are aware of roles, responsibilities and decision-making processes and such process are accessible to them.

Indigenous Peoples and Local Communities

The World Bank Operational Policy 4.10 requires that the process of consultation and implementation of projects fully respects the dignity, human rights, economies, and cultures of Indigenous Peoples. The policy calls for the recipient country to engage in a process of free, prior, and informed consultation. In order to meet these specifications Belize needs to make a significant effort to engage the indigenous Maya that traditionally use the Maya Mountain Massif in a way that they feel they are included in the decision making process. The Indigenous Mayas of southern Belize are heavily reliant on the land and forests surrounding their communities. Therefore, it is important that they be among the core for participation and consultation, and the applied methodologies should be respectful of cultures and norms, if any degree of success is to be achieved. Consultations with indigenous peoples will be done in accordance with an agreed Consultation Protocol between the TAA and the Forest Department. An initial protocol is available and this will be formalized during the readiness activities. This approach ensures compliance with the expectation of widely accepted guidelines that seeks to ensure that traditional decision-making systems are followed. The consultation protocol outlines the role of the TAA, and on making contact, information sharing and decision-making.

Consultations and Gender Considerations

Women have significant influence over the use and status of the forests and protected areas, particularly in forest dependent areas and among indigenous communities and so are open to facing negative effects if they are not included. The participation of women will be encouraged within each stakeholder group. Women are currently represented in the various organizations including the Village Councils that represent local communities however this is at an insufficient level. The situation is similar for indigenous women. The consultation process will therefore work with women by identifying women's groups, organizations and other CBOs in rural areas and work through them to engage women effectively. The Gender Study proposed in section 1b above will be used to strengthen the engagement of women during consultations.

Indigenous women are heavily dependent on the use natural resources for their wellbeing including that of their families. The Toledo Maya Women's Council will be used a platform to reach as many women with information on REDD+ as possible. It will also be used as a collaborating entity to engage women in deeper discussion regarding land use and sustainable forest management in indigenous communities. Women will also be consulted in the development of social safeguards as required by World Bank policies.

Timing

A minimum of two-week notice will be given for any consultation event. Key documents, brochures and other informational materials will be made available at the time of the invitation. The representatives of each stakeholder group are to be given the draft copies of relevant documents prior to consultation events for their review and consideration. It is the responsibility of the R+CU to ensure that the terms of consultation are adhered at all times.

3. Consultation Methodology

Informational Materials and Web page - All information materials will be prepared in a user friendly format so that members of the local communities will be able to understand its content and in turn be

able to request any clarifications, and make free, informed decisions on the information presented to them. A stakeholder and or public consultation web page will be identified on the Forest Department home page. This web page will clearly state the principles for public consultation and community engagement and will direct viewers to the appropriate areas of the website where stakeholder consultation reports, opportunities for feedback, etc can be accessed.

Workshops - While government departments and environmental NGOs are generally aware with some working in the area of climate change, other stakeholder-groups especially forest-dependent and indigenous peoples may not have that knowledge or access to such information. Workshops will therefore be tailored to respond to the differing interests of the various stakeholder groups. They must seek to elicit feedback and input in a way that responds to the overall aim of the REDD+ initiative. Workshops will be one of the primary methods for stakeholder engagements at different levels as it provides a platform for multi-party interaction.

Community Meetings – It is envisioned that many of the consultations activities will be carried out through formal and communities meetings. Meetings are especially useful when initiating contact and planning future activities. Community meetings in villages are also effective in reaching a large audience in a cost-effective way and also allow greater access to information by community members without having to leave their communities. Meetings also allow specific groups of stakeholders to come together to discuss specific topics relevant to the groups interests.

Community Planning Groups – Non-formal planning groups will be established primarily with women from local communities in order to provide training, orientation on REDD+ topics. The groups will also be used to incorporate women’s feedback into key studies and assessments being prepared.

Media Outreach – As part of the information sharing activities the media will play a key role. Training will be provided to the local media on REDD+ initially as part of capacity building and it will also be used to assist in disseminating information of the REDD+ and its various aspects to the general public.

4. Implementation of Plan

Stakeholder Roles in Consultations

Stakeholder consultation activities including capacity building will be planned and implemented in collaboration with related NGO’s, CBO’s, civil societies and education institution as well as other levels of government as appropriate. The Partners will be engaged to assist with the dissemination of information among their related local community leaderships and stakeholders. Where geographically-sensitive projects have broader implications, as in the case of the Maya Mountains Massif, perspectives from Guatemalan experts will be sought in addition to local views.

When initiating any stakeholder consultation event there will be defined objectives, scope and parameters of the consultation, noting which matters are subject to dialogue with the public and stakeholders. This process will include estimated timing of any decision(s), identify who the decision maker(s) are and what criteria will be used in guiding these decisions.

The National Association of Village Councils will be a key partner in carrying out consultations in local communities that are non-indigenous while the Toledo Alcalde Association and the Toledo Maya Women’s Council will be partners in carrying out consultations in indigenous communities.

Role of the RASC

The Readiness Activities Steering Committee will lead the consultation activities as it is already a representative body of relevant stakeholders. The R+CU will provide operational support for the execution of all consultation activities.

National Workshop

A national workshop will be held to the consultation and participation process. A broad range of stakeholders will participate in the workshop from both national and local levels. The objective of the workshop will be twofold, a) Review and Validate the Consultation Plan and b) Finalize list of issues to be consulted on and the methodologies involved.

Incorporating Feedback and Reports from Consultation

Stakeholder consultations will be undertaken well in advance of decisions made by the Forest Department and the National Climate Change Committee on major projects, policies and programs, when options are still open to consideration. The results of the applicable consultation process will be communicated to the RASC and the public for further consideration of the project, plan or policy, either in a separate report or within a broader report to the RASC. Stakeholders will be given ample time and opportunity to provide input, feedback, question decisions and ask for clarification where needed.

Stakeholder input obtained through consultation processes is considered as advice to the Forest Department, the RASC and the TEG and other decision makers. The Forest Department will use this advice in its decision-making processes, in addition to technical, environmental, social, economic, and financial information, and other considerations deemed appropriate. The R+CU will report to the public on the results of its consultation processes in a variety of locations and formats, and will demonstrate how public input has been used in its decision-making processes. Information will be posted on the REDD+ website for public viewing.

Indigenous Peoples Living in Isolation

There are no indigenous peoples living in voluntary isolation in Belize so the consultation plan applies to all stakeholders previously identified.

Feedback and Grievance Redressal Mechanism (FGRM)

Consultation activities will actually be carried out first in the development of an FGRM. Once it is established it will be operational during the consultation process. Information sharing and other consultation activities and materials will incorporate information on the FGRM and its procedures. The FGRM will be developed as part of readiness arrangements and is expected to be permanent mechanism covering all aspects of readiness activities and REDD+ implementation.

Budget 1c: Summary of Consultation and Participation Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands US\$)				
		2014	2015	2016	2017	Total
Prepare a national REDD+ Consultation & Participation Plan	Complete Consultation and Participation Plan	20				20
	Workshops and consultation events	30	10			40
Implement a national REDD+ Consultation Plan	Capacity building	10	10	5		25
	Socialization of Plan Workshops	5	5	5		15
	Support stakeholder participation (e.g. travel allowances)	5	5	5	5	20
Feedback and Reporting	Dissemination of materials for consultations and general information packages through various media outlets	10	10	10	5	35
Total		80	40	25	10	155
Government						
FCPF		80	40	25	10	155
UN-REDD Programme (if applicable)						
Other Development Partner 1 (KBA)						
Other Development Partner 2 (REDD-CCAD-GIZ)						
Other Development Partner 3 (name)						

Component 2: Prepare the REDD-plus Strategy

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

Assessment of Land Use and Land Use Change Drivers

The original land use classification elaborated within Fairweather & Gray (1994) reduces the different types of land use to five main classes, namely (i) agricultural land, (ii) forests and other wooded areas, (iii) range land, (iv) urban and industrialized areas, and (v) unproductive land. In a follow-up to Fairweather & Gray (1994) and complementary to the assessment of forest cover change in Belize for the period 1980-2010 (Cherrington et al. 2010), CATHALAC assessed Belize's land use for the period 1980-2010. Subsequently, two more assessments were conducted to ascertain land use from 2010 to 2012 and 2012 to March 2013. With those figures being the most updated land use statistics for Belize, total forest cover is estimated at 13,742 square kilometers in 2010 (or 62.04% of Belize's land area), down from 16,452 square kilometers (74.27% of Belize's land area) in 1980 (see Figure 2 below).

Table 3: Land use and land cover of Belize, 2010

Land cover / land use	Area (km ²)	%
Agricultural land	3,111	14.05%
Forest	13,742	62.04%
Other vegetation	3,735	16.86%
Urban / industrialized areas	147	0.66%
Water / wetlands	1,415	6.39%
TOTAL	22,151	100%

Source: CATHALAC 2012

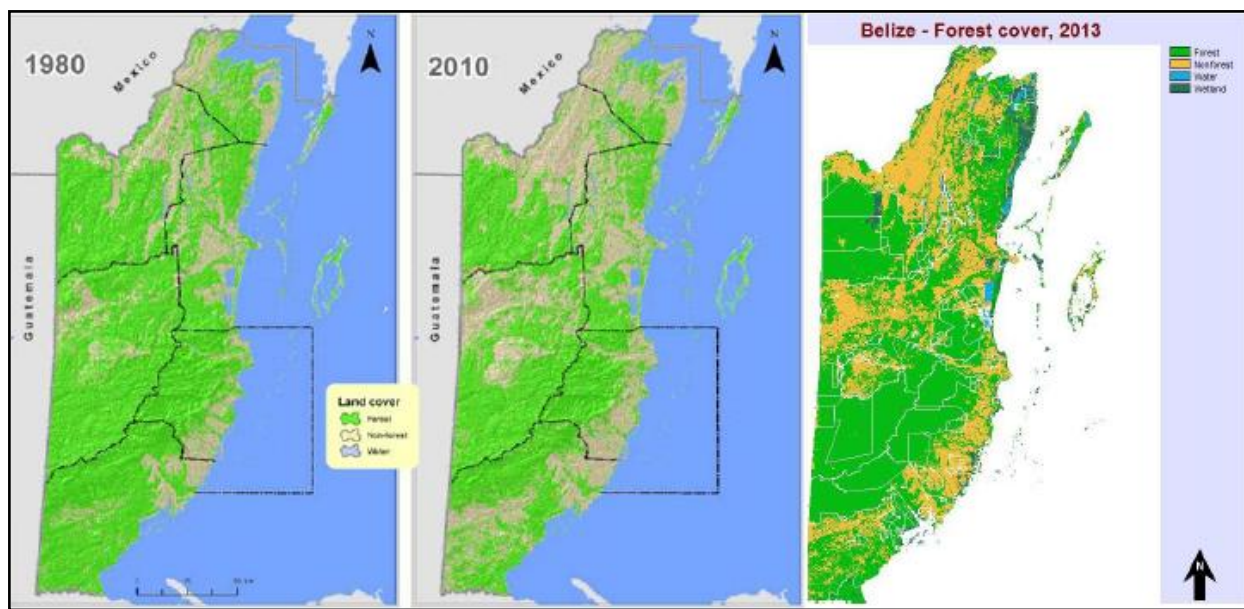


Figure 2: Land use change across Belize, 1980-2013; source: CATHALAC, 2013 (unpublished)

Historical trends in forest cover and land use change³

In addition to recent progress with regard to the development of a land use policy, one of Belize's strengths – especially compared with other countries in Central America or the Caribbean – the country counts on a long and significant archive of data on its forest cover. A number of such studies, utilizing satellite imagery to assess changes in Belize's land cover – but usually limited to small pilot areas – have been elaborated since the early 1990s (e.g. Gray et al. 1990, Zisman 1993, Vasquez 1997, Brokaw & Sabido 1998, White et al. 1998, Zisman 1999, White et al. 2001, DiFiore 2002, Ek 2004, Penn et al. 2004, Emch et al. 2005, Binford 2007). In addition, a few other national-scale studies of forest cover and/or land cover using remote sensing have also been elaborated, including Fairweather & Gray (1994), Iremonger & Brokaw (1995), Meerman & Sabido (2001), Meerman (2005), and Meerman et al. (2010) but such studies have generally been one-shot. In terms of the most recent work, and one examining forest cover over the period of decades, in 2010, CATHALAC, jointly with the Forest Department and the Land Information Centre, and supported by NASA and USAID, published the report “*Forest cover and Deforestation in Belize: 1980 – 2010*” (Cherrington et al. 2010). That study employed some 30 years of satellite imagery available through the Regional Visualization & Monitoring System (SERVIR), examining changes in forest cover at the national level, using Landsat satellite imagery for the years 1980, 1989, 1994, 2000, 2004, and 2010.

Overall trends:

There has been drastic difference in forest cover between 1980 and 2010. Estimated by this study Belize had some 4.2 million acres of forest in mid-November 1980 which declined to 3.4 million acres by later February 2010. In 1980 forest covered 75.9% of Belize's land territory, but this declined to 62.7% by 2010. While forest cover decline represented an absolute loss of 13.2% the relative forest cover change over the thirty year period was a 7.4% decline which represents a fifth of the forest between 1980 and 2010. Cherrington (2013) estimates that forest cover at March 2013 at 61.1% (Refer to Figure 2)

³ Cherrington, E., E. Ek, P. Cho, B.F. Howell, B.E. Hernandez, E.R. Anderson, A.I. Flores, B.C. Garcia, E. Sempris, D.E. Erwin. 2010. “Forest Cover and Deforestation in Belize: 1980-2010”. SERVIR, Cathalac.

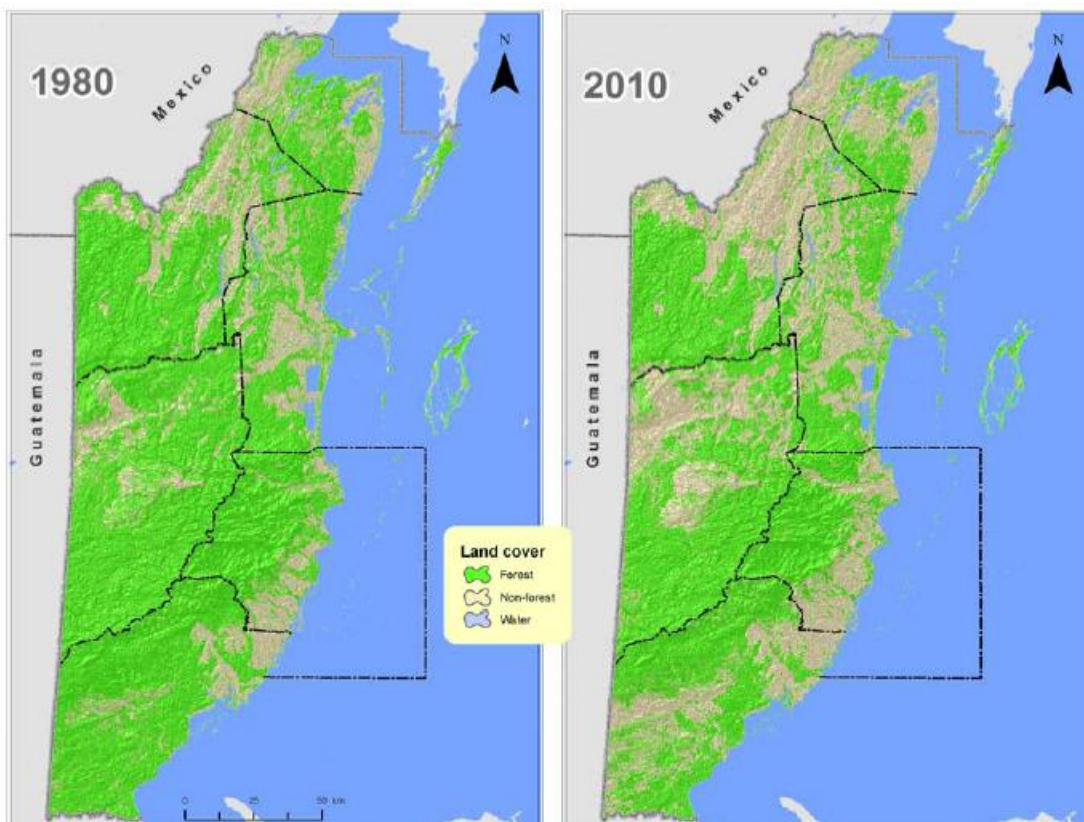


Figure 3: Belize Land cover 1980 – 2010 (Cherrington et al 2010)

The study shows a loss of 17.4% of Belize's Forest Area over the thirty years analyzed, which represents an annual deforestation rate of 0.6%. This represents a total loss of 725,173 acres of forest over thirty years at an average national loss of 24,835 acres of forest per year, indicated in Table 4.

Drivers of Change (deforestation and degradation)

A 2005 technical report produced in the context of the ICRAN-MAR project, and considering drivers of land cover change and deforestation across southern Mexico, Belize, eastern Guatemala, and Honduras (Cherrington, 2005) established the main drivers of land cover change in Belize to be agricultural expansion, establishment of aquaculture farms, coastal development, and expansion of urban areas. In 2011, Garcia et al. further examined the drivers of deforestation in Belize, conducting a meta-analysis of existing studies. This study combines data sets that have been collected during multiple studies over an extended time, and searches for statistical trends that are unobservable in single studies. The results are tabled below.

Table 4: List of deforestation and forest degradation drivers

Drivers	Frequency	Percent	Valid Percent
Agriculture	26	17.7	17.7
Government policies	18	12.2	12.2
Logging	18	12.2	12.2
Cattle ranching	14	9.5	9.5
Roads	11	7.5	7.5
Slash and burn	10	6.8	6.8
Population growth	9	6.1	6.1
Urban expansion	8	5.4	5.4
Tourism	6	4.1	4.1
Wildfires	4	2.7	2.7
Unequal access to resources	3	2.0	2.0
Soil quality	3	2.0	2.0
Farms on slope	2	1.4	1.4
Distance to markets	2	1.4	1.4
Total	147	100.0	100.0

Source: Garcia et al, 2011

These results indicate that, prima facie, the pre-eminent drivers of deforestation and forest degradation are the conversion of forests to agricultural lands, illegal and unsustainable logging, and forest fires. It also demonstrates the national perception that government policies may negatively impact on forest conservation and there may be a need to revise such policies and enact legislation to reduce these drivers.

The study also identified “hotspots” around the country, via the use of GIS, doing a meta-analysis of existing literature, conducting surveys, focus groups, in-depth interviews, key informant interviews, literature review and a stakeholder’s workshop (see Annex 2a. Deforestation Hotspots and Sampling Settlements). In order for an area to be considered a hotspot the following criteria were met: area was undergoing deforestation or forest degradation; it was not under any protection status; it was near roads and settlements; and the terrain had a slope gradient of no more than 15 degrees. Twenty-one villages were selected from within those hotspots for ethnographic study.

Table 5: Villages identified as hotspots for ethnographic study

Northern Zone	Central Zone	Southern Zone
Maskal	Valley of Peace	San Marco
Bomba	Los Tambos	Santa Teresa
Santana	More Tomorrow	Blue Creek
Lucky Strike	Cotton Tree	San Jose
Progresso	United Ville	Pueblo Viejo
Little Belize	Teakettle	San Benito Poite
Chunnox		Big Falls
Santa Martha		

(Garcia et al, 2011)

The ethnographic study identified five major factors related to deforestation and forest degradation.

These factors are:

1. Forest type cover
2. Proximity to roads

3. Forest protection status
4. Slope of the terrain
5. Proximity to agriculture

The meta-data analysis and the ethnographic studies confirm that in Belize:

- a. forested areas closer to roads are more vulnerable to deforestation.
- b. forest on steeper slopes are less vulnerable of being cleared than forests on lower gradient (because the soils at steeper slopes are more vulnerable to erosion and unsuitable for agriculture)
- c. agriculture is the biggest contributor to deforestation and forest degradation. It is noted that the lack of a comprehensive land use policy means that agriculture occurs wherever land is available regardless of its nutrient level or slope gradient. This is further compounded by the fact that agriculture is promoted as one of the major forms of development in rural areas. Therefore it is a socially complex dilemma.

In 2013 the Forest Department conducted additional analysis of the results of the Garcia report (2011). The list of deforestation drivers was ranked utilizing the Drivers of Deforestation and Forest Degradation Guidelines, adapted from the Conservation Action Program of The Nature Conservancy (See Annex 2a). The identified drivers of deforestation were placed into categories of direct drivers and underlying causes. The Ranking Guidelines, comprised of elements pertaining to Severity of Damage, Scope of Damage, Contribution and Irreversibility, were then applied to each of the direct drivers. Of importance is that one more direct driver of deforestation was added: hurricanes. Hurricanes have caused significant damage to Belizean forests over time, with effects ranging from degradation to large scale deforestation. The ranking exercise confirmed Agricultural expansion as the highest driver of deforestation, ranking as High to Very High (Table 6).

Table 6: Ranking of Drivers of Deforestation and Forest Degradation (High to Low)

Driver	Severity of Damage	Scope of Damage	Contribution	Irreversibility	Grade of the Driver	Rank of the Driver
Agriculture (cattle ranching, subsistence/ small scale, slash and burn, farming on slopes)	4	3	4	3	3.5	High-Very High
Infrastructure Expansion (roads, urban & rural expansion)	3	2	3	4	3	High
Unsustainable and Illegal Logging	3	4	2	2	2.75	Medium-High
Hurricanes	4	2.5	1	4	2.88	Medium-High
Wildfires	2	2	2	2	2	Medium

Driver	Severity of Damage	Scope of Damage	Contribution	Irreversibility	Grade of the Driver	Rank of the Driver
Tourism	1.5	1	2	1	1.38	Low

Key environmental and social issues leading to deforestation

The deforestation and degradation drivers study identified some issues as drivers of deforestation/degradation in Table 2 that are more appropriately classed as key environmental and social issues stimulating deforestation. These include government policies, roads, population growth, soil quality and distance to markets.

Government policies which promote deforestation include the assignment of higher land taxes on undeveloped private lands. Land owners who maintain forests on their private lands therefore are given a disincentive to keep their land under permanent forest cover. This can potentially lead to deforestation through land development for agriculture or land sales to other parties seeking to develop the land.

The presence of roads in a forested area provides access to illegal squatters who deforest small areas for subsistence farming. However, the distance to market for these illegal squatters also plays a critical role in determining their actions with respect to clearing forest for farming. The further squatters have to travel to market, the less attractive is the prospect of illegal deforestation. In any case, illegal deforestation is not a qualifiable component of REDD+ and in fact accounts for a small fraction of the deforestation trend.

Population growth and subsequent need for expansion of rural and urban housing as well as the need for expansion of farmland places pressure on forest lands. There is nothing that can be done to directly address population growth, but the pressures can be addressed elsewhere through strategies aimed at improving the efficiency of land use.

Soil suitability for different land uses, including different types of crops, has been assessed for the entire country of Belize through early studies commissioned during the colonial era (e.g. Wright et al. 1959). However, this assessment plays no role in current land use. Farms now commonly occur on skeletal soils on steep slopes and along riparian flood zones, areas unsuitable for permanent agriculture. As more and more suitable soils are utilized, unsuitable soils will become an increasingly attractive option for agriculturalists. In Belize, forests primarily occur on soils unsuitable for agriculture.

Forecasted Deforestation

As a part of the Drivers of Deforestation study conducted by Saqui, et al (2011), a deforestation risk map was produced (**Error! Reference source not found.**). The layers or variables for the index model that were used were roads, protected areas, agriculture, slopes, and ecosystem type. This corresponds closely with a deforestation susceptibility map produced by Cherrington (2013) (Figure 5). Cherrington used the variables of fire, developed areas, roads, previous deforestation, extractive reserves, hurricane routes, populated areas and non-extractive reserves.

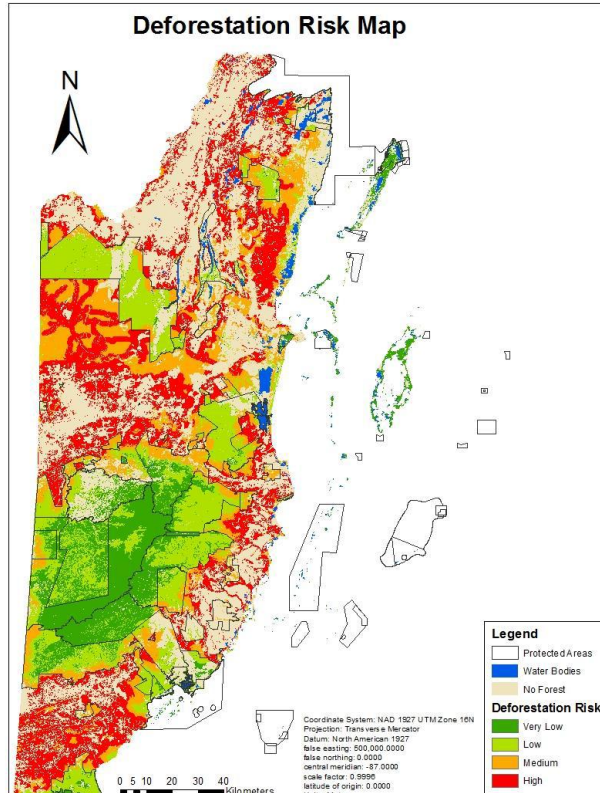


Figure 4: Deforestation Risk Map (Saqui, 2011)

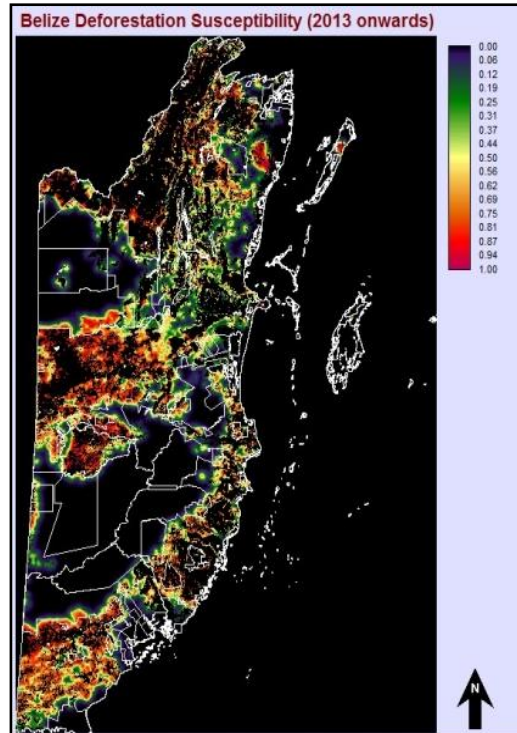


Figure 5: Deforestation Susceptibility (Cherrington, 2013)

The land use modeling forecast used by Cherrington estimates that with business as usual, by 2025 Belize's forest cover will decline to 56.7% (Figure 6), with areas of highest risk being southern, central and a portion of northwestern Belize.

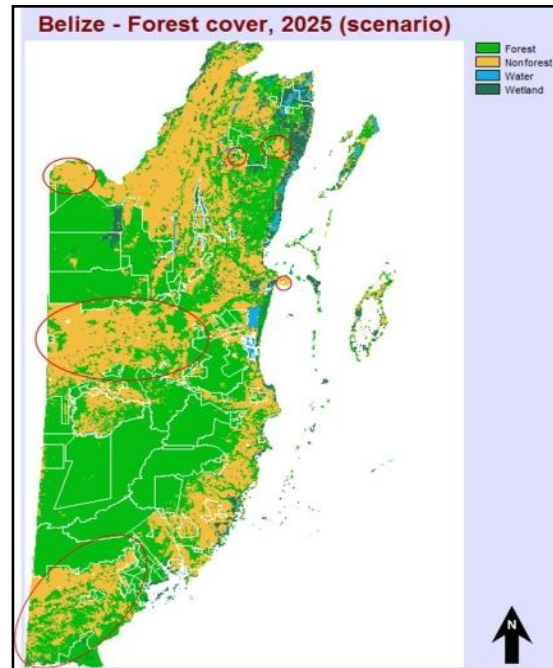


Figure 6: Belize Forest Cover 2025 (scenario)

Forest Law, Policy and Governance

National land and forest management and governance issues

Bruce et al. (2010), define land tenure as the set of institutions and policies that determine locally how the land and its resources are accessed; who can hold and use these resources; and for how long and under what conditions they may be used. Historic and present land tenure in Belize has had a profound impact on land use. The Land Laws of Belize are derived mainly from the Common Law and English Statutes of the 19th century.

The Land and Surveys Department, under the Ministry of Natural Resources and Agriculture has prime responsibility for all aspects of land tenure in Belize. The department's primary functions are:

- Management and allocation of national lands
- Registration of Land Tenure
- Authentication of Plans for all legal surveys
- Sub-division of lands
- Valuation of Lands
- Land Use Planning
- Land Information Management

Land in Belize is divided into two broad categories: National Lands, and Private Lands.

The National Lands Act of 1992 controls the allocation of state lands by lease or sale to private ownership. These state lands comprise the majority of the land in Belize including the cayes and sea beds. The Commissioner of Lands and Surveys in the Ministry of Natural Resources and Agriculture administers the Act with the assistance from the Advisory Committee and local committees appointed by the Minister. Under normal practice the applicant may first obtain a long –term lease for national land, then after making sufficient improvement to the land may purchase it outright. Unfortunately the traditional concept of improvement in most cases especially in rural areas contemplates deforestation since the assumption is that the land is required for agriculture. The Act reserves to the Government all mineral and timber rights in lands allocated in this way. The government remains one of the largest landowners in Belize and the lease and sale of national land to Belizeans continues to manifest itself as a key policy in promoting national development and alleviating poverty. National land distribution is a political process that involves political representatives at local and national levels and the rationalization of land allocation continues to pose a historic challenge. Nevertheless, the GOB understands that land rights and titles need to be clearly defined to facilitate access to credit and empower the poor. Recognizing the link between land tenure and equity, the GOB with the support of the IDB, is implementing a Land Administration project, to: (i) clear the backlog of un-surveyed leases; (ii) unify the land titling system; (iii) improve the land registry system; and (iv) initiate a land adjudication system for granting secure land tenure. It should be noted that the National Lands Act does not apply to state land declared as Forest Reserves or protected areas under the National Park Systems Act.

Several laws govern land use and land use planning in Belize including the Land Utilization Act, the National Lands Act, and the Housing and Town Planning Act. Although these laws provide authority for ensuring rational land allocation and land use planning, it is widely recognized that implementing land allocation and planning continues to face challenges in the absence of policies, and effective guidelines. However, in November 2011 the Cabinet of the GOB approved a National Land Use Policy and Planning Framework. Nevertheless, this policy and framework needs to be operationalized and internalized in all key government agencies and the relevant private sector, NGO, and community partners.

The National Lands Act also requires an EIA for leases of 500 acres or more and grants the Minister discretion to require an EIA for leases of less than 500 acres.

The Land Utilization Act provides the primary authority for land use planning outside of cities and town. The Act provides general authority to regulate land use in order to protect watersheds, prevent soil erosion, control clearing of forest, and to regulate type of development permitted in designated areas. This is accomplished through the Land Subdivision and Land Utilization Authority (LUA) established under the Act which is required to approve the subdivision of any rural property for development purposes. However, the paucity of clear policies and rules governing the implementation of the Act has hindered the effective authority of the LUA. The Act provides for the LUA to establish Special Development Areas (SDA's) for the purpose of placing special planning controls on development in areas of particular environmental concern or sensitivity e.g. watersheds and coastal areas. The LUA may prepare a Development Plan for each SDA to specify types of land use within the area and actual implementation of the Development plan may be delegated to an appropriate local authority e.g. the Village Council. The SDA's represent the most effective effort to incorporate environmental considerations into rural development planning and at the time of their inception were considered to be innovative in that they created a space for community participation together with other stakeholders in the land use planning process at the local level. Unfortunately not all of these SDA's were successful because of a lack of continued adequate political and technical support to a nascent participatory planning process that had not reached a viable state of maturity and internalization with the responsible institutional governance structures. Perhaps one of the greatest legacy of the SDA's were the lessons learnt from attempting to create effective stakeholder participation in a land use planning process that may have been well ahead of the accepted governance norm of the time. While local land allocation and land use planning continues to evolve in terms of effective multi-stakeholder participation there is a growing awareness from non-public sector stakeholders that increasingly challenge traditional institutional structures. Nevertheless the need for elevating public awareness and sensitizing key government and private sector agencies that impinge on land use and land use planning remains a high priority.

The Housing and Town Planning Act provides authority for urban planning. The Act established the Central Housing and Planning Authority for the purpose of executing and enforcing urban planning schemes.

Other legislation that impact on land use are the Forest Act which provides the legal mandate for the MFFSD to manage forests and regulate the extraction of timber. This legislation and its subsidiaries have been enacted since the national developmental period when Belize's economy was primarily founded on timber extraction and exports. The laws are focused primarily on regulating timber extraction and the sustained forest management of the forest resource within a modern economy based on agricultural development and nature tourism overlain by a relatively large rural population characterized by changing cultures is inadequately addressed in the present Act. Of particular note is the Forest (Protection of Mangroves) Regulations which regulates the cutting and clearance of mangroves and which provides the authority for the present moratorium on the clearance of mangroves.

The Land Information Centre created in the early 1990's during the period of implementation of Belize's Tropical Forest Action Program and housed in the Ministry of Natural Resources provides the official geographic information platform for all spatial data related to Belize's land and sea resources. It was funded with the aim of creating a centralized interagency geo-referenced data base and to provide training in the application of GIS to natural resource management including land use planning as well as develop national policies and standards for GIS application in areas such as surveying and geo-referencing. The LIC serves both public and private sector needs.

The tenure of private land in Belize is regulated and protected by several laws including those that regulate certain modalities of land ownership, titling, sale, taxation, and registration. However at present there is no legislation that recognizes communal forms of land ownership such as indigenous owned lands. While a recent Belize Court of Appeals ruling has reaffirmed a previous Supreme Court ruling that grants the Mayan communities of Southern Belize collective rights to land and resources in Southern Belize based on use and occupancy. However the Appeal Court did not uphold the previous Supreme Court ruling that imposed a positive obligation on the Government to adopt affirmative measures to protect the rights of the Mayan communities in Southern Belize. This judgement which is being appealed by both parties obviously has an impact on the successful implantation of REDD in Southern Belize. Nevertheless there continues to be some degree of dialogue with representatives of the Mayan collective to keep channels of communication open within the context of the national REDD strategy.

Background to the Indigenous Maya Land Rights Issue

In 1995, the Toledo Maya Cultural Council (TMCC) started a mapping project to map out Mayan territory with the support of the Indian Law Resource Center and the University of California- Berkeley. The following year it filed a lawsuit against the Government of Belize in the Supreme Court of Belize. For unknown reasons the case was never brought up for hearing. The claim challenged the constitutionality of the government's actions and specifically sought a declaration of the Maya communities' aboriginal title over their traditional lands and resources. The action was brought after the Ministry of Natural Resources granted two Malaysian multinational companies concessions to log over 500,000 acres of rainforest in the Toledo District.

With this action having failed, a petition was filed with the Inter-American Commission of Human Rights of the Organization of American States (OAS) in August 1998. In 2004, the Commission issued a ruling favorable to the Maya and confirmed that international law requires the Government of Belize to set the boundaries of the lands the Maya have used and lived on, and to legally recognize and protect Maya communal property rights. According to the Commission, by failing to protect Maya lands and resources and failing to obtain Maya consent for logging concessions and other activities on their traditional lands, the government violated the provisions of the American Declaration on the Rights and Duties of Man. In addition, the Commission stated that the government violated Maya rights to judicial protection, because of the failure of the domestic legal situation to adequately address Maya grievances [1].

With little progress being realized on the ground the Mayas launched a new claim in the Supreme Court of Belize in 2007 with a focus on the villages of Santa Cruz and Conejo. On 18th October 2007 the Chief

Justice issued his ruling in the case and found that the Government of Belize is required “in both domestic law in virtue of the Constitutional provisions that have been canvassed in this case, and international law, arising from Belize’s obligation thereunder, to respect the rights to and interests of the claimants as members of the indigenous Maya community, to their lands and resources which are the subject of this case.”^[2]

In 2010 a subsequent lawsuit was filed again in the Supreme Court of Belize by the Mayas to have the Court enforce the rulings and remedies provided in the 2007 ruling and extend it to all other Maya communities in the Toledo District. The Supreme Court again ruled in favor of the Mayas and extended the 2007 ruling to all Maya communities ^[3]. The Government has since appealed this decision at the Belize Court of Appeal. On July 25th 2013, the Court of Appeal issued a ruling that affirmed the rights of Maya people to their ancestral territory but stated that the Government of Belize is not obligated to protect those rights^[4]. Both parties have subsequently filed appeals to the Caribbean Court of Justice.

Past Attempts at addressing drivers of deforestation and degradation

Table 7: Past Efforts to Reduce Deforestation and Forest Degradation

Efforts to Date	Outcomes	Gaps/Challenges
<p>The FD adopted the use of the Sustainable Forest Management Licenses (20-40 year agreements) in the mid 1990's.</p>	<p>The SFML prescribes conditions for area harvesting, maximum allowable cut, directional felling of the trees, efficient layout of roads and log landings. Since harvesting and other disturbances occur within a restricted area of the managed forest, the remainder is unaffected; ie. no deforestation or degradation until the particular block is scheduled for harvesting. At the same time, the directional felling along with the layout of extraction routes and landings also result in considerably less damage to the seedlings and remaining growing stock during the harvesting operations.</p>	<p>This type of sustainable forest management is being applied only in Forest Reserves (which represents about 30% of forests in the country) and on a portion of the RBCMA, a privately managed property with the same objectives.</p> <p>Government needs to work with private land owners to adopt this methodology across the entire country.</p> <p>Private land owners and community groups need to build capacity to apply this management, thereby reducing the level of monitoring and supervision that currently has to be provided by the FD</p>
<p>Community Based Sustainable Forest Management</p>	<p>During the last few years the FD has actively embarked on initiatives to engage and involve communities in community forest management programs. Alternative livelihood practices such as bee-keeping are encouraged.</p>	<p>Traditional indigenous groups are able to embrace such strategies quickly because they understand the value of the forest in its natural healthy state. But there are other cultural groups (Mennonites and immigrant populations) in the country who are not so prone to change practices.</p>
<p>Belize indicated its concern with deforestation and land degradation when it acceded to the UNCCD in November 1998.</p>	<p>The awareness and concern about deforestation and degradation in Belize was raised when the program was launched in February 2000, two national awareness seminars conducted in 2004, a preliminary survey of land degradation in Belize was prepared in November 2005, and the first UNCCD National Action Program was completed in July 2006. The preliminary survey sought to identify the causes of degradation in Belize and to quantify the extent of the phenomenon. Three national reports on land degradation were also prepared and submitted to the Secretariat in 2000, 2003, and 2006. The NAP was validated in May 2008. One NGO (Belize Audubon Society) in Belize has also been accredited to the UNCCD.</p>	<p>The momentum gained in those early years of the program has been lost with the transition between two or three National Focal Points located within different departments and ministries. Very little activity has occurred since 2008, and neither has the involvement of the accredited NGO been maintained.</p> <p>The absence of a national land (use) policy has probably also resulted in little priority being placed on the NAP recommendations to address deforestation and degradation.</p>

Relevant International Law

Belize has a number of international commitments to which it is required to report data on forest cover and deforestation. These include the Convention on Biological Diversity (CBD), the UNCCD and the UNFCCC. In terms of National reports, data on deforestation and degradation factored in to Belize's Global Program of Action to Protect the Marine Environment from Land Based Activities and the Millennium Development Goals. Participation in REDD will further require Belize to report regularly forest cover data and carbon content.

Challenges and Opportunities for REDD+ in Belize

REDD+ should not be seen as an end. The end goal is not merely to become involved in the global REDD+ initiative. Rather, Belize sees REDD+ as a vehicle for achieving the goals and objectives of sustainable land use management and sustainable forest management. Additionally, sustainable land management and forest management are only tool in the toolbox of sustainable development. Sustainable development features prominently as one of the key goals in the Horizon 2030 framework: "As a natural resource based economy, there is proper management allocation and utilization of the country's natural resources guided by the principles of sustainable development." Therefore as a vehicle for improving forest management practices in Belize, REDD+ is not 'the' answer to the country's forestry challenges, but rather a part of the solution. Notwithstanding, there are challenges to be overcome for Belize to engage in the REDD+ initiative.

Table 8: Opportunities and Challenges for REDD+ in Belize

Opportunities	Challenges
REDD+ is an integrated, holistic approach to address the drivers behind deforestation	REDD comprises many thematic areas and bringing the SH to be able to understand, participate and effectively implement REDD will take a lot of time and financial resources. There is almost no local expertise on REDD+ in Belize.
It requires the participation and involvement of the key sectors and players influencing and influenced by forests and related activities	It requires the participation and involvement of the key sectors and players influencing and influenced by forests and related activities
REDD offers the opportunity for Belize to "put its house in order" in relation to forest management, land use and governance, even if the long term financial benefits are not gained.	Bringing these sectors together to plan nationally is a big task
REDD+ offers the opportunity for increasing human resource and institutional capacity in forest management and sustainable development.	Achieving the required changes for reducing deforestation and degradation and the financial benefits of REDD+ will take many years. There is also much uncertainty if and when the international REDD+ financing will be available.
REDD+ offers the opportunity to open and improve the dialogue with IPs. Governance of forests cannot be adequately addressed if these key actors are not participating.	If the IPs do not feel that their rights are being considered, they may not support REDD+ and the forest governance challenges could be prolonged.

Budget 2a: Summary of Assessment of Land Use, Land Use Change Drivers, Forest Law, Policy and Governance Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands US\$)				
		2014	2015	2016	2017	Total
Complete drivers of deforestation and forest degradation analysis	Conduct detailed study on Drivers of Forest Degradation	20				20
	Support activities to address drivers of Forest Degradation	20	20	20	20	80
Support for dialogue on governance of forests with TAA, NAVCO and DAVCO	Support Toledo Alcaldes Association	10	10	5	5	30
	Support to NAVCO & DAVCO	15	10	5	5	35
	Establish a GoB negotiating/dialogue team for IP and natural resource governance issues	5	5	5	5	20
	Seek consensus on way forward between GoB and IPs on resource issues		5	5	5	15
Total		70	50	40	40	200
Government						
FCPF						
UN-REDD Programme (if applicable)						
Other Development Partner 1 (name)						
Other Development Partner 2						0
Other Development Partner 3 (name)						

2b. REDD-plus Strategy Options

National Development Framework of Belize: Horizon 2030

As a country highly dependent on the abundance and integrity of its natural resources, it is imperative that Belize continues to promote sound natural resource management, and improve in areas where it is necessary. This includes creating avenues for increased, meaningful participation by all stakeholders. All these elements have been outlined in the country's national development framework coined **Horizon 2030**. The objective of Horizon 2030 is to clearly establish a set of long-term development goals, targets, and indicators that will guide concerted action by all stakeholders involved in the development, implementation, and monitoring and evaluation of both long term and intermediate sector programs and Government's long and medium-term development strategies. Environmental management is a strategic priority in the development framework (Figure 7). The vision for the future is that "Belize is a country of peace and tranquility, where *citizens live in harmony with the natural environment* and enjoy a high quality of life. Belizeans are an energetic, resourceful and independent *people looking after their own development in a sustainable way.*"

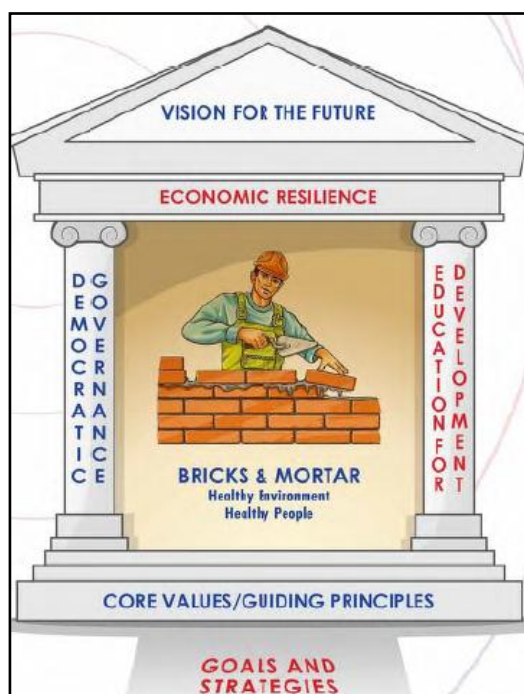


Figure 7: The Horizon 2030 Framework

The following statements in the Horizon 2030 Framework are consistent with the goals and objectives of REDD+:

- ✓ The natural environment is valued and protected as the basis for all economic activity and therefore development planning is based on the principles of environmental sustainability.
- ✓ An effective governance framework that ensures: i) citizen participation, accountability of political leaders and effective management of public resources to meet public needs.
- ✓ Strengthen accountability of village administration.

- ✓ The key economic goals for 2030 speak to: building economic resilience, promoting productivity and competitiveness and ensuring the environmental sustainability of economic activity.
- ✓ Support reforestation and sustainable local logging by communities to create jobs and reduce poverty.
- ✓ Promote and facilitate the identification and development of new sectors- Finance, Knowledge Sector, Green business etc.
- ✓ Belizeans have a deep appreciation and love for Belize's natural resources and work collectively to protect the natural heritage and the economic value of these natural resources is quantified and officially recognized.
- ✓ Implement a comprehensive natural resources and environmental policy and strategy including planning for climate change and its effects.
- ✓ Introduce natural resources accounting into GDP.
- ✓ Provide incentives for reforestation.
- ✓ Adopt and implement the National Protected Areas System Plan and strengthen the legal and administrative framework for protected areas.
- ✓ Increase the number of Belizean professionals qualified as engineers, planners, architects, social scientists, environmental scientists, environmental lawyers, marine biologists and coastal zone management.

OTHER KEY SECTOR POLICIES/STRATEGIES AND REDD+

National Land Use Policy for Land Resource Development

Belize is a relatively young country with only 32 years of Independence. The past decades have seen rapid expansion in population and industry leading to tremendous pressure on natural resources for tourism, aquaculture, agriculture, housing, and others. Presently there are a number of governmental bodies that oversee land use including the Lands and Survey Department, Geology and Petroleum Department, Department of the Environment and the Forest Department. In the absence of a National Land Use Policy there has been undesirable use of land resources.

In light of such pressures, a changing economy and the political pressure for sound land use management Belize's government led the development of a **Land Use Policy, National Integrated Planning Framework** and a **Land Suitability Mapping System for Belize** to guide and implement the development of land resources (Meerman, et al. 2011), funded by the Global Environmental Facility (GEF) through the Sustainable Land Management project, and in the context of Belize's commitments to the UNCCD. Cabinet endorsed the National Land Use Policy and Integrated Planning Framework during a regular cabinet session on Tuesday, 29th November 2011. The objectives of the National Land Use Policy are:

- To provide guidance and direction in institutional, economic and legal reforms that will lead to improved land governance at national, local and community levels while ensuring that land is put to its most suitable use.
- To provide a participatory platform for the people of Belize to partake in decision making regarding the use of, and equitable access to land resources through an accountable and transparent process.
- To establish a firm and consensual basis on which development can take place and provide maximum local and national benefit.
- To facilitate economic growth and social progress by ensuring the development of land is founded upon feasible and sustainable grounds.

This policy was drafted with the input of a wide range of stakeholders through a series of workshops and interviews. The newly endorsed policy seeks to manage Belize's land resources on an equitable,

sustainable, fully representative and utterly accountable basis. Combined with the Framework and Land Suitability Mapping System there will be a new proactive approach to land management that balances the priorities of all sectors and stakeholder groups. The framework calls for a newly formed office, “The National Land Use Planning Office” who will be responsible for:

- Coordinating the implementation of the National Land Use Policy through the Integrated National Land Use Planning Framework;
- Drafting the National Level Zoning Strategy, for endorsement by the NLUPC and approval by Cabinet;
- Giving guidance and technical assistance to Local Land Use Planning Committees;
- Liaising with all other Government agencies, statutory bodies and national NGOs;
- Monitoring and evaluating the performance of the policy;
- Analyzing, revising and proposing amendments to the Policy, and related land use issues, as necessary.

This office has the potential to provide support for the implementation of the REDD+ Strategy in Belize. However, there has not been much progress since the endorsement of the Policy and Planning Framework, primarily because of lack of finances to implement. It is important therefore that within the context of REDD+ readiness, the National Land Use Policy and Planning Framework recommendations are taken into account and supported. An implementation plan with prioritization will be developed for the Land Use Planning Framework and funds will be identified to ensure its execution.

The National Food and Agriculture Policy (2002-2020): No Farmer = No Food

The long term vision for the sector is that of “A transformed/modern sector that is fully competitive, diversified and sustainable”. Therefore, policies for the sector will be guided by the major national challenges/constraints. Against this backdrop five priority areas were placed, each with specific major objectives and areas of actions: i) Trade Policy, ii) Price Policy, iii) Diversification of the Production Base and Food Security, iv) Sustainable Development of Rural Areas, v) Natural and Environmental Resources Management.

For the agriculture sector, the Agriculture Department, in consultation with its partners in development, has elaborated seven strategic objectives with accompanying programs:

- Accelerate the diversification of both local and export-oriented agriculture.
- Promote agro-processing and value adding as a means of expanding opportunities and increasing the income of the rural sector.
- Support the establishment and development of an Organic Agriculture Industry in Belize.
- Actively promote market and trade expansion both locally and internationally.
- Increase the efficiency, profitability and competitiveness of agri-businesses.
- Improve and conserve the natural and productive resource base to ensure long-term sustainable productivity and viability.
- Improve access to productive resources and services and create economic opportunities for small farmers, women and young farmers, and indigenous people, particularly in poor, marginal areas.
- Strengthen the institutional capacities to provide effective support in marketing and trade, research and extension, as well as relevant education and training.

All these objectives should contribute in the long-term to the sector’s vision of:

- An agriculture sector that will make maximum contribution to the economic, social and environmental well-being of Belizeans.
- Agriculture industries that are innovative, efficient and competitive supplying the local and international market with high quality products.
- Robust and self-sufficient production systems that will ensure food security, poverty alleviation and the ability to control our lives.

The growth and expansion of the agriculture industry in Belize, both crop and livestock agriculture will depend on and respond to factors such as government policy, population growth (including the transient tourist population) and the international market demand. The Statistical Institute of Belize (SIB) estimates the country's population growth rate at 2.65% per annum. In 2008, Belize received 245,000 overnight arrivals and 597,000 cruise visitor arrivals contributing Bz\$563 million to the Belizean economy (NSTMP, 2011). The National Sustainable Tourism Master Plan (NSTMP, 2011) envisions that "by 2030, the enhanced overnight destinations would result in doubling overnight tourism arrivals, reaching approximately 556,000 arrivals a year. A controlled cruise tourism development is expected to level at an average compound growth rate of 3.8% in the same 20 year horizon and reaching 1.5 million cruise passengers visits per season." Feeding increasing populations inevitably involves increasing agricultural production, which correlates to a growth in demand for agricultural land. The National Food and Agriculture Policy 2002-2020 promotes the sustainable expansion of the agriculture industry, through policies of trade, price and diversification of the production base and food security. Sustainable development of rural areas, natural and environmental management, the establishment of organic agriculture industry, promotion of agro-processing and value adding are some of the proposed steps towards the development of sustainable agriculture. Furthermore, strategic objective 6 confirms the value of the natural resource base for the country and the sector itself, and goes further in promoting sustainable agricultural practices which are in line with REDD+ objectives: "*The conservation of the natural and productive resource base will be an integral part of our agricultural development program. All major agricultural investments will be required to submit a business proposal complete with an environmental impact assessment (EIA). This EIA must be approved by the national environmental approval committee (NEAC) before their business proposal is accepted. The Department will also create the enabling environment for organic agriculture by passing relevant legislation to promote the production of organic products. Integrated pest management and rational use of pesticides will form a key component of our production systems. Tree farming, forest enrichment, agroforestry and silvipastoral production systems will be also be promoted as alternative livelihoods for farmers and businessmen in general.*" REDD+ therefore offers a timely opportunity to support sustainable agriculture in Belize.

The main agriculture export portfolio has not diversified significantly, and its main export industries lack international competitiveness. Recognizing agriculture as the most important economic sector in terms of income generation, employment, food security and poverty alleviation Belize understands that it needs to improve productivity and competitiveness in traditional agriculture, whilst diversifying further into promising non-traditional agriculture and agro-industry with a potential for exports or imports substitution.

Given these scenarios external shocks which may result from changes in demand and supply in international markets, erosion in access to preferential markets, consumer preferences and natural disasters will have a negative impact on the already fragile agriculture sector and its contribution to the domestic economy. In addition much of the inputs required for production are imported contributing to a high cost of production which limits the country's ability to compete with its neighbours. This also contributes to a higher import to export ratio for the country making it vulnerable to external global factors.

Although the Belize economy has gradually been transforming from one that is primary agricultural to one that is more service oriented and despite erosion in access to preferential markets for Belize's commodities, agriculture continues to play a crucial role in the domestic economy as it is the sector that generates the most employment in rural Belize. Agriculture is expected to remain one of the most important contributors to the economy, with potential for further development.

Draft Revised National Forest Policy

The current ongoing exercise of revision of the Forest Policy under the auspices of the National Forest Program Facility (NFP) of the Food and Agriculture Organization of the United Nations (FAO) will address the incorporation of these modern trends into the revised policy. There is then, the opportunity for the REDD+ program to contribute towards revising the corresponding forest legislation. The proposed objectives of the Revised Forest Policy of Belize are to:

- Conserve and enhance the quality and productivity of the Belize's forests thereby ensuring environmental integrity and a sustained flow of goods and services to meet the development needs of the people;
- Encourage the participation of all relevant stakeholders in the planning and decision making process for effective protection, management and development of the forests and wildlife;
- Raise awareness and maintain a high level of public consciousness on the functionality of forests and benefits to be derived from appropriate forest and wildlife conservation;
- Stimulate research and investigation into all aspects of the forest's flora and fauna and the influence of forest cover on the maintenance of water and soil resources, so as to provide for evidence-based management decisions;
- Provide guidance for actions to be taken with regards to the direct and indirect threats posed by global climate change on forests and forest dependent people in order to reduce their vulnerability, increase their resilience and adapt to climate change⁴;

The objectives, guiding principles and policy statements of the draft revised forest policy fall in line with those of sustainable development, the route charted by Horizon 2030. The Vision Statement of the Draft Revised National Forest Policy is: "State and non-state partners collaboratively manage the forests of Belize for the protection of fundamental ecological services, the sustained generation of income and livelihood opportunities from varied innovative financial strategies and forest usage, and for the promotion and retention of those elements of our forests that make it an integral part of our cultural and world heritage." In addition there are 14 policy statements under the broad thematic areas of Conservation & Protection, and Management & Productivity.

National Protected Areas Policy and System Plan

The National Protected Area Policy is the key statement on the role and management of protected areas. The aim is to create a National Protected Area System in which all important sites are included in one coherent framework and that meets all obligations under international agreements to which Belize signatory. As discussed in Component 2a above, protected areas in Belize have served as the stronghold for maintaining and abating forest cover. Deforestation rates are much lower in protected areas by virtue of their protection status as well as the accessibility due to terrain, in particular, the Maya Mountain-Mountain Pine Ridge Massif. Strengthening of the protected areas system should secure the role of these protected areas, in particular the terrestrial protected areas in provision of the goods and services that forests provide for the Belizean and global society. The strengthened system will:

- Be comprehensive, with representative examples of all ecosystems in the country and including areas providing important environmental services, possessing exceptional scenic values and providing critical habitat for species of conservation concern or economic importance.
- Be integrated with regional and national approaches promoting biological connectedness (such as the Meso-American Biological Corridors Project) and with other national and regional development plans.
- Economic, social and ecological sustainability is a prime objective for the system which will seek to optimize socio-economic benefits derived from the system as far as these are compatible with maintaining biodiversity values and sustainable resource management. It will also seek to ensure the equitable distribution of these benefits and public awareness of their importance.
- Management of the system will be transparent, geared towards delivery of measurable benefits and emphasize public participation at all levels. This applies to the establishment, management, modification or de-reservation of all the protected areas included in the national network.

The National Protected Area System Plan is designed to implement the policy. Overall the plan aims to create a more effective protected area system that delivers and is seen to deliver tangible benefits yet is more cost-effective and simpler to administer. The System Plan is under implementation and is presently building on the institutional, management and legislative requirements of the national PA system, a comprehensive review of the legislation related to protected areas. Additionally a recently completed

⁴ Belize Forest Department. 2011. National Forest Policy of Belize 2nd Draft.

Rationalization Exercise forces on the harmonization of PA categories; b) co-management agreements; c) inclusion of private and community protected areas into the national PA system; and d) rules and procedures related to changes in PA status, boundaries, and natural resources utilization; among others. Furthermore, an analysis of existing and potential mechanisms for consolidating, demarcating, managing and regularizing lands within the protected areas system is ongoing to identify ways to improve the legal framework with regard to protected areas consolidation and management.

The National Rural Area-Based Development Strategy (BRADS) For Belize

The National Rural Development Strategy for Belize follows the principles of Rural Area-based Development and is therefore a National Rural Area-based Development Strategy. In its design BRADS includes appropriate mechanisms to facilitate the emergence of endogenous processes of sustainable development in the country's rural areas.

In terms of its scope, this Strategy includes all types of actions and measures for sustainable rural development, applied by the Central Government in coordination with local governments and the ADGs. Similarly, the scope of this collection of actions and measures is significant and aims to promote development in the rural milieu, giving priority to those areas that are relatively more backward, regardless of their location within the country. This Strategy constitutes a political action of the utmost importance, given the size of the potential beneficiary population, the area of the territory encompassed and the amount of public and private financial resources that must be committed.

Strategic Options to Address the Drivers of Deforestation and Forest Degradation

As discussed earlier the primary drivers of deforestation and forest degradation have already been defined for Belize. The ranking exercise resulted in following direct drivers:

1. Agriculture (Large scale and small scale crop and livestock development, farming on slopes)
Infrastructure Expansion (roads, urban/community expansion)
2. Unsustainable and Illegal Logging
3. Hurricanes and Pests
4. Wildfires
5. Tourism

Since Tourism was ranked as a low driver of deforestation and degradation, it will not be included in a strategy to address deforestation. The infrastructural developments associated with tourism are considered to be the greater threat and this is already identified as the second highest driver and will be examined in detail in the RPP.

CROSS SECTORAL INTERVENTIONS

There are several cross-cutting interventions that can constitute parts of a strategic response to address the drivers of deforestation and forest degradation. These would cover national level planning and strategizing which would in turn set frameworks in which sectorial planning and strategizing should occur. These cross-cutting national level interventions include:

- Implement the National Land Use Policy, the National Integrated Planning Framework and the Land Suitability Mapping System for Belize to guide the development of land resources.
- Pursue effective inter-sectorial dialogue and planning among agencies responsible for land and resource management, within the structure of the National Integrated Planning Framework.

Implement the National Land Use Policy, the National Integrated Planning Framework and the Land Suitability Mapping System for Belize to guide the development of land resources.

A land use policy must address issues relating directly to the use of land – housing, agriculture, and infrastructure – but also to its resources – fertility, geology, ecology, and hydrology – and its perception – landscape and social values. Furthermore, land use policy must incorporate all the activities, whether proposed or in effect, of all agencies that are likely to have an impact on the use of land and its resources, either directly – such as in agriculture or housing – or indirectly – such as through social or cultural enhancement programs. Through this multi-faceted approach, a comprehensive and integrated land use policy can create the context whereby the opportunities and parameters the use of the land of Belize is determined. Policy topics range from tourism, transport infrastructure, utility provision, mineral extraction, forestry, housing, conservation, commercial enterprise, agriculture, land allocation, and community development.

Fortunately for Belize a National Land Use Policy for Land Resource Development exists. After a development period of approximately one year and consultations with 374 persons and entities, the National Land Use Policy for Land Resource Development was endorsed by the Cabinet on 29th November, 2011. In conformity with the general stakeholder statements a vision for the National Land use Policy was created.

NATIONAL LAND USE POLICY
VISION
A NATIONAL LAND USE POLICY THAT GUIDES
BELIZE TOWARDS AND ENVIRONMENTALLY AND
SOCIALLY RESPONSIBLE USE OF LAND
RESOURCES THAT ENABLES NATIONAL
DEVELOPMENT.

The Planning Framework is the means through which the policy is implemented, the administrative structure that will deliver the policy to individuals, communities, the nation and the actual physical site. The process of delivering the policy, and all consequent policies, is necessarily a government-led procedure. This planning framework recognizes that the many government ministries and departments have developed their specialization in this process, and thereby seeks to place land use planning within existing structures, requiring only that the provisions of any land use plans are incorporated into their decision-making and planning procedures.

There are a number of government and statutory agencies charged with the management of the different forms of land use, such as building construction, subdivision, hotel licensing, mineral extraction, fiscal incentives, leasing of National Land, and environmental clearance. The planning framework is designed to ensure that their management decisions are coordinated through adherence to the national land use policy.

The Planning Framework is founded on the concept of ‘development planning’, not ‘master planning’. Development planning addresses the planning of all land uses that could take place in an area, depending on site suitability and estimated demand. Actual development does not have to take place within the period of a plan, but the location / zone and its development requirements are established. Incentives may be used to facilitate development.

The Planning Framework is proposed as the comprehensive, transparent and democratic mechanism through which the National Land Use Policy will be effectively and efficiently implemented, managed, maintained, revised, and updated. Implementation will be guided by a National Level Zoning Strategy and put into effect through Local Land Use Plans. The national scale must be represented, partly to address issues that require a national level approach, and partly to ensure that land use at the boundaries of adjacent Local Land Use Planning Areas is harmonized.

The National Level Zoning Strategy will be drafted by the NLUPO to address planning issues that require a national perspective, including but not limited to the national road network, airports & airstrips, targeted

economic development zones, new settlements, national utility supply, river reserves & aquifers, aquaculture areas, protected areas (public & private), tourism development zones, border crossings, etc. This National Level Zoning Strategy will also focus on issues that may extend through several Local Land Use Plans, and will thereby ensure that land use at their boundaries are harmonized and that they do not contradict national approaches to the development of Belize. The National Land Use Policy Council, which was focused on the formulation and approval of the National Land Use Policy, will also act as the decisive authorizer and arbiter in the implementation of the Planning Framework. Two other structures are proposed: the National Land Use Planning Office (NLUPO), a central technical body that will manage the Framework, and Local Land Use Planning Committees (LLUPC).

AGRICULTURE SECTOR OPTIONS

Based on the direction outlined in the Agriculture Policy and the international market demands, Belize should see an expansion of the agriculture industry. With advantages such as being an English speaking nation, its suitable geographic location and its tropical climate, Belize continues to hold promise in the agriculture sector and experts recommend further development of the sector. This development must however be within a foundation of sustainable development. For this to be achieved, planning must be done at the national level and involve the relevant stakeholders both vertically and laterally. Perhaps the primary means to manage the development of the sector while safeguarding the natural environment is through appropriate land use planning. This tool already exists and only needs funding for it to be implemented.

Sustainable agricultural should be mainstreamed into daily agricultural practices of large and small scale farmers. As affirmed in the national energy policy, utilizing sustainable agricultural practices “enlists the local farmer to be part of the solution in what is probably the world’s most urgent task: to move into the post-oil era, to improve the healthiness of our people, and to mitigate climate change” (National Energy Policy, 2012). Sustainable agricultural practices should be promoted as part of a strategy towards sustainable development ends. Full utilization of these practices will require capacity building of agriculture technicians and farmers as well as accessibility to the modern technology and equipment. During consultations with the Agriculture Department and review of the Agriculture and Energy Policies, activities from the following list of sustainable agricultural practices can be supported through the REDD+ strategy. How quickly we transition to these sustainable agricultural practices will be the critical determining factor of whether our Agriculture Industry can remain viable in an era of rapidly-increasing oil prices (Energy Policy) and environmental shocks caused by increasing climate change:

- abandoning mono-cropping in favor of crop rotations
- intercropping, and companion planting;
- planting a portion of land in trees and other perennial crops in permanent plantings or long-term rotations;
- where possible integrating crop and livestock production;
- using hedgerows, insectary plants, cover crops, and water reservoirs to attract and support populations of beneficial insects, bats, and birds;
- planting off-season cover crops.
- forest enrichment
- agroforestry
- silvopastoral production
- Solar driven electric fence and solar driver cold storage

INFRASTRUCTURE EXPANSION OPTION

The National Land Use Policy calls for the formulation of a National Level Zoning Strategy. The National Level Zoning Strategy is based partly on information contained in the National Mapping System for Land

Resources and partly on written National Level Zoning Strategy Statements based on the National Land Use Policy. Examples of issues contained in the National Level Zoning Strategy may be (a) the need to reserve land for a proposed highway or the up-grading of an existing one, (b) the need to protect an extensive area of land for watershed protection, or (c) the suitability of an area for a planned settlement. Matters addressed in the National Level Zoning Strategy may include the national road network, new settlements, tourism development, protected areas and river reserves, among others.

The zoning process will be based on the demand for land, the location, meeting policy requirements and land suitability. The principal purpose of the land use zoning process is the designation of land for the most suitable, appropriate and realistic use. Some of the land use zones that may be included are Residential, Commercial, Industrial, Recreational, Agriculture, Forestry, Aquaculture and Conservation, among others. This process highlights yet again the need for the implementation of the National Land Use Policy and Integrated Planning Framework for Land Resource Development, which will be a critical factor for success in reducing the deforestation driver of infrastructure expansion.

UNSUSTAINABLE AND ILLEGAL LOGGING OPTIONS

One option to address forest degradation occurring in logging concessions is to revise the silvicultural system and enshrine this system in the Forest Act, where it specifies the need to leave large seed trees (an upper cutting diameter limit). This is one aspect of a revised silvicultural system that can address one aspect of forest degradation that may occur in logging operations as they are currently managed. Another aspect of the silvicultural system that can be improved is the mandatory cutting of lianas prior to felling, which will reduce degradation caused by damage to the residual forest. The damage avoided in large trees may very well exceed the biomass lost during the killing of lianas. A REDD+ strategy may also include requiring replanting after logging, where data suggest natural regeneration may not be possible. Furthermore, the mandatory adoption of reduced-impact logging methods in the silvicultural system can reduce the level of degradation associated with logging operations. These are all options which require regulatory adjustments to address degradation caused by logging.

Other options that may accompany the above policy-based options to address degradation through improved silviculture include the institution of a local certification scheme accompanied by another policy-based strategy involving the institution of a new 'wood tax' with higher taxes on uncertified wood. Together the silvicultural improvements, local certification scheme, and new wood tax regime constitute a strong package for addressing degradation through logging. For example, a local private sector company operating in a Forest Reserve may be required to abide by an improved silvicultural system which reduces degradation of biomass through the preservation of large trees, and in return the company's wood products are locally certified and taxed at a lesser rate which helps to offset the cost of not being to fall very large trees.

Another policy-based intervention is required to address the loophole in the PFCA that allows a private forest owner to log a forest and then convert it to agriculture or sell it after it has been logged or degraded by natural disasters. Stipulations are required which bind a landowner to preserve a forest during and after benefiting from the logging of that forest, and which require the land owner to restore areas that may be degraded by natural disasters. A lowering of land taxes (an accompanying incentive-based intervention) may be prescribed for areas of forest degraded by natural disaster, as an incentive to the land owner for not converting or selling a piece of degraded forest. Any adjustment to the land tax regime will require the approval and cooperation of central government and the involvement of the Lands Department, a separate entity from the Forest Department.

An inconsistency exists between the proposed REDD+ strategy and current land tax laws which stipulate higher taxes for forested lands. This type of land tax regime aims to discourage land speculation but encourages deforestation. With higher taxes for forested (undeveloped) lands, private forest owners are given a disincentive to preserve their forests, and depending on timber market conditions, may even be pressured to find alternative uses if timber profits do not offset the land tax. Therefore, to discourage logging followed by deforestation or land sale, it will be necessary to adjust the land tax laws to

recognize timber production as a land use consistent with land development. This is proposed to be addressed in the Key Biodiversity Areas Project set to commence in 2014.

HURRICANES, PESTS AND WILDFIRES OPTIONS

A policy-based intervention is required through new legislation which addresses salvage logging activities and which specifies which areas may qualify and under what circumstances. The perception in the industry of a 'free for all' after a hurricane must be changed. Incentive-based interventions may not be applicable in this instance; rather disincentives may be needed to dissuade concessionaires from utilizing any and all downed logs. One such disincentive may be the need to carry out intensive re-planting on a 5 to 1 ratio for every downed log harvested, with 5 sites planted with 3 or more seedlings at each site.

A policy-based intervention is required to address post-hurricane fires through the revision and strengthening of the Agricultural Fires Act to include a ban on all agricultural fires if within 500 m of a hurricane affected forest. Other land clearing methods must be promoted in these regions and may include incentives for lowered fuel taxes to farmers operating in this zone for a number of years following a hurricane. Likewise cooperatives which share land clearing equipment such as tractors may be offered lowered import duties on machinery and lower taxes on fuel. Logging concessionaires who possess land clearing equipment may also be provided with incentives to encourage them to assist farmers in these zones with clearing land, including incentives which deduct the operation cost of land clearing from any timber or wood tax owed.

Forest fires in non-hurricane affected forests, such as in pine ecosystems, can be addressed through policy-based interventions which require the military engage in fire-fighting training and suppression activities in the event of a fire. An improvement the Forest Act may see the inclusion of stipulations requiring the Forest Department to maintain a minimal level of fire readiness, including the maintenance of equipment, training, and materials required for firefighting. This intervention will have an impact on the national budgeting activities and will require approval of parliament.

Interventions are needed which ensure an adequate silvicultural system is in place for pine forest management that takes into account the development of management actions which aim to build forests resistant and resilient to bark beetle outbreaks. Primarily this intervention will be executed through the conditions of logging concessions, since it will involve the continuous thinning and tending of dense pine stands – an economic activity. Incentive-based interventions to build resistant and resilient forests may thus accompany policy-based interventions and may constitute lower royalties on timber from bark beetle preventative harvesting operations.

In respect to current outbreaks, interventions are required which see the Forest Department or some other contracted entity immediately and efficiently conduct prescribed sanitation cuts aimed at arresting outbreaks before they become unmanageable. Budgetary adjustments may be necessary which require the approval of parliament. A clear oversight system is needed which is managed by a team of qualified foresters and not by a single individual in the Forest Department.

Policy Interventions and Incentive Based Interventions for Drivers of Deforestation and Degradation.

The proposed intervention options for reducing drivers of deforestation and forest degradation have been classified into 2 categories: Policy Based Interventions and Incentive Based Interventions. Angelsen (2009)⁵ identifies four types of policies that could reduce deforestation: i) policies to depress agricultural rent, ii) policies to increase and capture forest rent, iii) policies that directly regulate land use, and iv) cross-sector policies that underpin the first three. Incentive-based interventions are defined for the purposes of this exercise, as incentives for changes in land use practices at the local/farmer level.

⁵ Angelsen A., 2008. How Do We Set the Reference Levels for REDD Payments? In A. Angelsen (ed.), *Moving Ahead with REDD: Issues, Options and Implications*. Bogor, Indonesia: Centre for International Forestry Research (CIFOR).

Table 9: Policy based and Incentive Based Interventions

Driver	Policy Based Interventions	Incentive Based Interventions	Comments
Agriculture	Implement National Land Use Policy and Planning Framework	Amend Land Tax Act to incentivize maintenance of forest cover	Cross sectoral/ regulating land use intervention
	Implement sustainable agricultural practices	Certification of organic/ sustainable agriculture farms, including livestock	Niche markets and higher product value
	Formal planning and collaboration MNRA/ MFFSD		Can operate within the framework of the NLUP
Infrastructure Expansion	Implement National Land Use Policy and Planning Framework		Cross sectoral/ regulating land use intervention
Unsustainable and Illegal Logging	Revise silvicultural system and legislate the change	Wood Certification (reduced wood tax on certified wood)	Land tax change requires collaboration with Lands and Surveys Dept.
	Legislate enrichment planting post-logging operations	Reduce rate of land tax on forested lands	Land tax change requires collaboration with Lands and Surveys Dept.
	Legislate Adoption of the Reduced Impact Logging and the Harvesting Code for Belize		Improved enforcement must be concurrent with all proposed policy/legislative changes
	Institute a "Wood" Tax	Lower "Wood Tax" rates on Certified Products	Requires collaboration with Lands and Surveys Dept.
Hurricanes, Pests and Wildfires	Implementation of Strategy to Guide the Response to Hurricane Damage in Belize's Forests		
	Strengthen criteria to reduce salvage logging where not necessary		Requires improved enforcement
	Review and strengthen Agriculture Fires Act as necessary		
	Implementation of		

	Wildland Fire Management Strategy		
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Table 10: Overview of Intervention Costs and Benefits

Driver	Strategic Intervention	Intervention Costs	Intervention Benefits	Level of Implementation
Agriculture	Implement National Land Use Policy and Planning Framework	Shifts from inappropriate lands already in use	Appropriate land for agriculture could increase productivity. High conservation value areas protected.	National/Local
	Implement sustainable agricultural practices	High investment costs for training and equipment	Human capital in SAP increased and sustainable agricultural practices being utilized	Local, in vulnerable and degraded areas
	Formal planning and collaboration MNRA/ MFFSD	Limited financial investment required but process involves planning sessions that require significant human effort and time	Improved planning processes between key mandated natural resource agencies.	Central Administration Planning, Local implementation
Infrastructure Expansion	Implement National Land Use Policy and Planning Framework	Limitations of development in newly zoned areas	Improved zoning for development.	National, many components local
Unsustainable and Illegal Logging Options	Revise silvicultural system and legislate the change	Requires technical expertise, may encounter resistance from some loggers	Improvement in harvesting practices	National
	Legislate enrichment planting post-logging operations	High cost of implementation for logger, monitoring and enforcement necessary	Could improve forest regeneration	National
	Legislate Adoption of the Reduced Impact Logging and the Harvesting Code for Belize	Dramatic shift in logging regime, there may be resistance	Promotion of SFM practices	National
	Institute a "Wood" Tax	Requires inter-ministerial support and planning	Lower tax on wood from sustainable managed areas, promoting SFM	National
	Analysis of impact of proposed		Feasibility of proposed tax will	National

	"Wood tax" on market value of lumber and competition with imported lumber		be determined	
Hurricanes, Pests and Wildfires Options	Institutional Strengthening for Pest Management and Control	High cost of implementation	Institutions more equipped to address wildfires	National
	Support implementation of Wildland Fire Management Strategy	High cost of implementation	Increased national capacity to respond to wildfires	National

A plan for assessing domestic leakage of greenhouse gas benefits/risks

The most carbon rich forests will be the most attractive for REDD+ and therefore the greatest risk of leakage will be in lower carbon forests or other ecosystems such as savannahs. A plan to assess domestic leakage of greenhouse gas benefits/risks will have to focus on the monitoring of land use changes in low carbon forests and other ecosystems. This monitoring can primarily be done with the help of satellite imagery, where recently cleared areas can be identified followed by on-ground investigations into the responsible entities. A national registry of companies engaged in REDD+ related activities and their associates and shareholders will help to assess any leakage occurring as a result of the manipulation of company names or affiliates.

Budget 2b. Summary of REDD+ Strategy Activities and Budget						
Output (major activity)	Activities or Sub-activities	Estimated cost in thousands US\$				
		2014	2015	2016	2017	Total
Sustainability and integration with other sector policies	In depth analysis of synergies and/or conflicts among the various relevant sector policies and strategies	10				10
Develop Implementation Plan for National Land Use Policy and National Integrated Planning Framework for Land Resource Development	Develop a sustainable implementation plan with identified options and cost estimates	20				20
	Develop and submit proposal(s) for funding the implementation plan	20				20
	Implement prioritized actions of National Integrated Planning Framework for Land Resource Development	300	200	200	100	800
Formal planning and collaboration MNRA/ MFFSD	Assessment of current and forecasted demand for land from the agriculture sector (link to national agriculture census)	10				10
	Implementation of sustainable agriculture practices and climate smart agriculture systems	50	50	50	50	200
Strengthen Forest Policy and Legislation to reduce degradation drivers	Analysis of impact of proposed "Wood tax" on market value of lumber and competition with imported lumber		10			10
	Update salvage logging requirements		10			10
	Institutional Strengthening for Pest Management and Control	20	20	10	10	60
	Support implementation of Wildland Fire Management Strategy	10	10	10	5	35
	A plan for assessing domestic leakage of greenhouse gas benefits/risks		10			10
Total		440	310	270	165	1185
Government						
FCPF						
UN-REDD Programme (if applicable)						
Other Development Partner 1 (REDD-CCAD-GIZ)						
Other Development Partner 2 (name)						
Other Development Partner 3 (name)						

2c. REDD-plus Implementation Framework

REDD+ offers a Coordinated Approach to Planning

It has been discussed in Components 2a and 2b above that planning for the reduction of emissions from deforestation and forest degradation requires a partnership with stakeholders from many sectors within and outside of the forestry. The main drivers of deforestation are outside of the forest sector and associated with national development agendas and processes. Planning then, must be towards sustainable development as is envisioned in Horizon 2030. The strategic intervention options for REDD+ outlined in Component 2b above will clearly require a multi-stakeholder involvement, similar to that of Horizon 2030. Table XX outlines who are the actors needed to ensure implementation of these options. It is important to highlight at this point that the REDD+ strategic intervention options would also serve as major steps towards defining the sustainable development agenda and strategy, which is the vehicle with which to arrive at the Horizon 2030 vision.

Several government agencies have been identified as critical to the REDD+ implementation Framework (**Table 11 Agency Roles in REDD+ Implementation Framework**). These are the Forest Department, the Department of the Environment, the Lands and Surveys Department, the Agriculture Department, the Protected Areas Conservation Trust, Ministry of Forestry, Fisheries and Sustainable Development, Ministry of Natural Resources and Agriculture, Office of the Prime Minister, Ministry of Finance and Economic Development and the Ministry of Local Government and Rural Development. In addition to these government bodies, it is imperative that non-government actors are involved at every stage of implementation. Eight key organizations have been identified to date based on their current mandate and important role they could play in the REDD+ process (Table 12). These organizations are:

- Toledo Alcaldes Association
- National Association of Village Councils
- District Association of Village Councils
- Women's Issues Network
- Association of Protected Areas Management Organizations
- Sustainable Forest Management Licensees
- Inter-American Institute for Cooperation on Agriculture
- The Nature Conservancy

Table 11 Agency Roles in REDD+ Implementation Framework

Agency	Oversight and Responsibility	Capacity	Role in REDD+ Implementation
Forest Department	Regulatory body and manages forests and protected areas.	Forest planning and monitoring, fire management and fighting, protected areas and wildlife management, forest carbon assessments, enforcement, community forestry	Lead agency in development of REDD+ RPP, forest planning and monitoring, forest carbon assessment, and participation in International REDD + initiative.
Department of Environment	Fostering the prudent use and proper management of the natural resources of Belize, the preservation, protection and improvement of the environment, and the control of pollution, thus guaranteeing a better quality of life for present and future generations.	Environmental Monitoring, enforcement, EIA	Environmental Monitoring, enforcement, EIA
Lands and Surveys Department	Land registry, land information center, land valuation, land surveying, physical planning	Land registry, land information center, land valuation, land surveying, physical planning	Participation in implementation of NLUP
Agriculture Department	To develop and transfer environmentally friendly technologies that will make farming more sustainable and farmers more competitive.	Agriculture extension, farming technology, crop and livestock farming, agri-business, agriculture policy, organic farming	Participation in implementation of LUP, agriculture extension, capacity building and implementation of sustainable agriculture
Protected Areas Conservation Trust	Financing support for conservation and promoting environmentally sound management of Belize's natural and cultural resources to foster sustainable development.	Financial management in conservation, WB accredited.	Potential fiscal management agency of REDD+ funding.
Ministry of Forestry, Fisheries and Sustainable Development	Climate Change, Coastal Zone, Management Authority, Environment, Fisheries, Forestry, Protected Areas and Reserves,	Forest and protected areas management, enforcement, conservation planning, sustainable development	Key partner agency in implementation of NLUP, Coordination of Climate Change including REDD+, Sustainable development planning

Agency	Oversight and Responsibility	Capacity	Role in REDD+ Implementation
Ministry of Natural Resources and Agriculture	Protected Areas Conservation Trust (PACT) Land and Land Management, Land Surveys, Mining, National Integrated Water Resource Authority, Physical Planning (new subdivisions), Solid Waste Management, Water Industry (except water supply and services)	Land and Water management, enforcement	Lead Agency in Implementation of National Land Use Policy for Land Resource Management
Office of the Prime Minister	Cabinet, Economic Development Council, Inter-ministerial coordination, Information, Broadcasting and Press Office, Special Projects	Political and Financial Capital	Potential Location of Climate Change and REDD+ Office to support inter-ministerial planning and coordination
Ministry of Finance and Economic Development	Horizon 2030	Inter-sectoral coordination for development	Potential Location of Climate Change and REDD+ Office to support inter-ministerial planning and coordination, coordination for SD policy and strategy development
Ministry of Labour, Local Government, Rural Development, NEMO and Immigration and Nationality	Alcaldes, Municipalities, Village Councils, Rural Development, ECADERT, Rural Area Development Strategy	Coordination and communication with municipalities and villages, rural development planning.	Participation in enabling governance reform and rural development

Table 12: Partner Roles in REDD+ Implementation Framework

Partner	Mandate	Capacities	Potential Role in REDD+ Implementation
Toledo Alcaldes Association	Collective traditional representative body of Maya people in Southern Belize. Preservation of the Maya culture and traditions and development of Maya communities in Toledo.	Coordination of traditional Alcaldes, traditional knowledge and practices	Forest monitoring, development of safeguards, monitoring of social benefits, governance reform, enforcement, promotion of community forestry
National Association of Village Councils	Strengthening local level governance to enhance national development	Comprises Village Chairpersons, coordinating body	Forest monitoring, development of safeguards, monitoring of social benefits, governance reform, enforcement, promotion of community forestry
District Association of Village Councils	Coordination and Planning by Village leaders at the District Level	Comprises Village Chairpersons, coordinating body	Forest monitoring, development of safeguards, monitoring of social benefits, governance reform, enforcement, promotion of community forestry
Women's Issues Network	National network of agencies which champions the rights of women and advocates for gender equality, gender equity and the full participation of women in all aspects of development.	Gender issues	Development of safeguards, monitoring of social benefits, governance reform, women's participation in REDD+.
Association of Protected Areas Management Organizations	Co-Management of Protected Areas/Coordinating Body	Research, fund-raising, forest monitoring, capacity building for PA management	Forest monitoring, development of safeguards, monitoring of social benefits, governance reform, enforcement, promotion of community forestry
Belize Agro-Productive Sector Group	To facilitate the development of Sugar, Citrus, Banana, and shrimp agro-productive sectors, and Mixed Farming of the Northern and Western Mennonite Communities.	Communication and Coordination with large agricultural developers	Involvement in development planning within context of REDD+ and sustainable development.

Partner	Mandate	Capacities	Potential Role in REDD+ Implementation
Sustainable Forest Management Licensees	Private sector management of private and state forests under SFM regime.	Forest planning and monitoring, fire management and fighting, forest carbon calculations	Forest planning and monitoring, fire management and fighting, forest carbon calculations, promotion of SFM in Belize
Inter-American Institute for Cooperation on Agriculture	Improving productivity and competitiveness of the agricultural sector, Improving the contribution of agriculture to food security, Enhancing the contribution of agriculture to the development of territories and rural welfare, Improve the ability of agriculture to mitigate and adapt to climate change and make better use of natural resources	Climate smart agriculture systems, sustainable agricultural practices,	Technical support for sustainable and climate smart agriculture systems
The Nature Conservancy	to conserve the lands and waters on which all life depends.	Carbon finance, Strengthening Government Policy, Technical support through sound science for Forest Management, Indigenous People's engagement.	Technical support with IP engagement, capacity building, REDD+ institutional arrangements and financial architecture, sharing of REDD MRV experiences, forest carbon measurements, REDD+ strategies

Strengthening the Framework for REDD+ Implementation

Strengthening of the REDD+ implementation framework requires investing time, energy and financial resources in several features of the Belizean construct, including Policy and Legislation, National Capacity Building (in components of REDD+) and Institutional Strengthening, Land Use planning, Partnerships and Fiscal Management of REDD+ and Carbon funds.

Policy and Legislation

Land tenure and carbon rights

REDD+ calls for changes in business as usual scenarios in land and forest resource use and management. Achieving this requires essential changes in the policy and legislative framework. Primary among these will be the determination of land tenure and carbon rights. Currently carbon rights do not exist in the Belizean legislation and will therefore need to be defined. Suggestions were made during the RPP consultation process to develop a Carbon Act, in which carbon rights would be included. Carbon rights undoubtedly tie in closely with current land tenure systems and will inevitably need to take customary and traditional land use and rights issues into consideration. Both the Government of Belize and the Toledo Alcaldes Association have appealed the decision of the Appeals Court to the Caribbean Court of Justice, the last available option. No matter the outcome of this final appeal process, strengthening land and resource management, which also involves improving governance systems, *must* integrate attempts at resolving the customary land rights issue in Toledo. Failure to do so will restrict the level of success in achieving sustainable forest management, REDD+ objectives and true sustainable development.

Jurisdictional & Nested REDD+ (JNR)

The Verified Carbon Standard (VCS) has developed standards and requirements for Jurisdictional and Nested REDD+. “Jurisdictional Nested REDD+ Initiative (JNRI) is an integrated, jurisdiction-wide accounting framework that enhances environmental integrity by ensuring all project and other reducing emissions from deforestation and degradation activities in a given jurisdiction are developed using consistent baselines and crediting approaches. They mitigate the risk of “leakage”—the displacement of emission-causing activities to areas outside the project boundary—by monitoring emissions across an entire jurisdictional area. They also they provide a way for jurisdictions to go beyond projects and credit the full range of policies and programs that reduce emissions. The ultimate goal is to ensure emission reductions “add up” at the jurisdictional level, whether national or sub-national, with each participant receiving proper credit for their contribution.” (VCS, 2013)

Utilizing the JNR approach has several benefits for Belize. Firstly it allows for national accounting for reductions in emissions from deforestation and forest degradation activities, utilizing standardized protocols. Secondly, it allows for REDD+ projects to be developed and implemented at sub-national levels, where local governments, indigenous people, private land owners, NGOs and investors can benefit from the REDD+ process, while operating within a national framework. This approach further allows for pursuance of multi-lateral and/or bi-lateral arrangements, with fair and equitable shares of benefits from jurisdictional (state) to sub-national (local) levels. This is the scale at which Belize intends to adopt and implement its REDD+ scheme.

Benefit Sharing Mechanism

Currently there is no existing legislation which mandates equitable benefit sharing from any activity in any sector. The implementers of REDD+ in Belize will have to engage the various sector stakeholders, including community representatives (e.g. NAVCO, DAVCO, TAA), in developing an equitable benefit sharing mechanism. Such mechanism should be established through a process of well-designed and equitable negotiation. It is closely linked to the FPIC process and of importance to mention is that benefits and costs will not be uniformly experienced. Therefore, associated costs and risks, as well as benefits need to be recognized. Ideally, a benefit sharing mechanism should be legislated for it to have the desired effect.

Governance reform in forest resources management

Globally there is a gradual shift in governance of forests and land resources, where changes have been seen in devolution of power to and strengthening at the grassroots level, to support on-the-ground management. It has been recognized that vesting authority at the local management and governance authorities such as village and municipal governments contributes to improved use and management in those areas. It also supports sustainable rural development and livelihoods, while strengthening the dialogue process with national governments and other sector stakeholders. REDD+ presents a very timely opportunity for Belize to examine its current forest governance regime and with a view to strengthening, through local level participation in decision making. Already systems are in place which can support such a process, including the presence of NAVCO, DAVCO and the TAA. The current development of rural area development strategies is a definite step in this direction.

National Climate Change Policy and Low Carbon Development Strategy

An integrated and inclusive approach to climate change is needed to ensure the implementation of robust and comprehensive strategies and actions. Such an approach must be cross-sectoral and multidisciplinary in nature, covering adaptation and mitigation activities (including REDD+) as an integral part of Belize's planning and development process. This in turn will allow the country to transition strategically to low-carbon economic development while bolstering resilience to the effects of climate change.

The draft Government of Belize Adaptation Policy was developed more than a decade ago to: explore and access the opportunities being developed through the climate change negotiation process to meet the development objectives of the nation, prepare all sectors of Belize to meet the challenges of global climate change, promote the development of economic incentives, which encourage investment in public and private sector adaptation measures, develop Belize's negotiating position on climate change at the regional and international levels to promote its economic and environmental interests, and foster the development of appropriate institutional systems for planning and responding to global climate change. This draft policy needs to be revised and updated into a national policy as new development in climate change science and understanding of climate change impacts have evolved. Steps are already being taken by the National Climate Change Office to update and prepare a National Climate Change Policy and Framework.

Nevertheless, as stated by the United Nations Framework Convention on Climate Change (UNFCCC) in 2008, there is need for forward-looking national economic development plans or strategies that encompass low-emission and/or climate-resilient economic growth. As such, the UNFCCC promotes the development and implementation of Low Carbon Development Strategies (LCDS) and states, in COP 15 and beyond (as well as in the Copenhagen Accord), that these strategies are indispensable to development. The strategy can serve multiple purposes but is primarily intended to help advance national climate change and development policies in a more co-ordinated, coherent and strategic manner. As such, the LCDS can strategically assist the country in shifting its development path to a low-carbon economy and achieve sustainable development, based on local socio-economic and development priorities. Therefore, preparation of a LCDS should be a priority action to support REDD+ implementation in Belize.

National Capacity Building and Institutional Strengthening

It has been discussed in Component 1 that capacity building will be a major undertaking in country preparations for REDD+ implementation. Already a draft Terms of Reference has been developed for a "Capacity Diagnosis to face the challenges of international negotiations and the management and implementation of the Program for Reducing Emissions from Deforestation and Forest Degradation (REDD) in Belize." Considering that REDD+ expertise is extremely limited within the country, this exercise is of utmost importance in filling the current knowledge gaps at all levels and within all sectors.

Another aspect of the institutional framework which needs to be defined promptly during the readiness phase is the placement of the REDD+ and National Climate Change Office. While their present location

within the Forest Department and the Ministry of Forestry, Fisheries and Sustainable Development respectively may be ideal from a technical perspective, it may be more advantageous from a more strategic point of view for them to fall within the auspices of the Office of the Prime Minister and/or the Ministry of Finance and Economic Development. From this position, REDD+ and the National Climate Change Office would benefit from more direct political capital (will). Furthermore, as the coordinating agency for strategic development planning, the MFED (within which lies the Office of the Prime Minister) is the most appropriate location for the national level planning process required for mainstreaming climate change (including REDD+) actions.

National Forest Information System (FIS) and REDD+ Registry

The development of a National Forest Information System is scheduled to commence in 2014 with financial support from the Global Environmental Facility, through the Key Biodiversity Areas Project. The FIS will be an integrated system to look at land use, land use change and forestry, combining the use of remote sensing, GIS, image processing, database management and data access functionalities for the purpose of monitoring and planning for sustainable forest management, biodiversity management, climate change and sustainable development. This national system will also include a registry of REDD+ related data, including information on monitoring of environmental and social safeguards.

Fiscal management of REDD+/Carbon funds

Although too early to determine at this stage, the Protected Areas Conservation Trust may be a suitable institution for fiscal management of REDD+ funds. Using an existing institution reduces the need for further resources as would be the case with creating new institutions. It also expedites the implementation process. The following is a brief synopsis of the relevant sections of the PACT Act that would support it and the institutions created therein, to facilitate REDD policy implementation:

Where it is the mandate of the Trust under sec 16 of the Act to “encourage and promote, for the benefit of present and future generations of the people of Belize, the provision, protection and conservation and enhancement of the natural environment and cultural resources of Belize”, the activities under REDD fit within the scope of the Act.

Creation of Sustainable Implementation Instruments

It is obvious that sustainable financing for REDD plus activities is key to the success of those activities in reducing emissions from deforestation and forest degradation in the long-term. What is not so obvious is the mechanism best suited for attaining this sustainability.

Two propositions have been made for sustainable REDD financing. The first assumes funds will be donated by developed nations to developing nations for the preservation of forests. The second proposition is that a market mechanism be employed and financing be awarded on a credit basis from emissions reductions.

The fund based approach

A fund based approach relies heavily on political will for sustainability. It presumes that developed nations, as a function of mere political/moral obligation under the principle of “common but differentiated responsibility” will consistently pay in monies for emissions reductions under REDD plus. But given the political climate of the negotiations around financing under the UNFCCC/COP proceedings it is a tenuous approach to depend solely on funds of a political nature. Further to this, a fund based approach must still be regulated. Funds cannot be blindly directed to forest conservation as this would be inconsistent with the call by parties to the UNFCCC for measurable, reportable and verifiable emissions reduction activities. Forest countries engaged in REDD plus will have to show that the funds are in direct proportion to the emissions reductions attained as a result of the efforts they make under REDD projects, or at the least show that the funds are in fact reducing deforestation rates below historic rates and as such contributing to the abatement of global warming.

The market based approach

The market mechanism is performance based requiring credits be awarded based on units of emission reductions attained under REDD plus activities and this is only possible with clearly demonstrable units that are measurable, reportable and verifiable. It also means that developed nations will only pay for

such credits as are generated by activities that reduce emissions. The entitlements are then to the emissions reductions and not the carbon. This is important because carbon is invariably bound to the tree, and the tree to the land and it elicits pause as to what entitlements are expected when a (n) country/entity purchase carbon stocks in part or in whole. With emission reductions credits system there is no confusion of entitlements, real or contrived, as payment is only after emissions reductions, credited and saleable only after reductions are demonstrated. This system though would only function under cap and trade where countries have emissions reductions target to meet. Under this cap and trade system though, developing forest countries using REDD will have the option of using those credits to meet its own mitigation commitments under Nationally Appropriate Mitigation Actions (NAMA) or to sell those credits and elect to mitigate in other sectors that are more economically feasible and better aligned with development goals.

For instance in Belize the national green house gas inventory of the First National Communications to the UNFCCC (in accordance with IPPC regulations) indicates that over 90% of our emissions come from LULUCF sources. This means that there would be immediate overlap between mitigation in Belize and REDD, in that activities in one may well meet the objectives in full of the other. It may be preferable for Belize then to use the resources/funding available under REDD to generate credits for sale.

What is consistent throughout the negotiations is that REDD needs to be brought on stream in a phased manner, with the first phase requiring start up funds to flow from developed to the developing world. These funds, like those sought from the FCPF, will help countries prepare for REDD (institutions, baselines etc). The second phase has to do with implementation, REDD projects started up and running and the last phase moves into the performance based award of financial benefits.

Other Initiatives and Potential Co-financing Partners

There are many concurrent forest sector strategies with potential synergies with the proposed REDD+ strategy to address the driver of forest degradation through logging. For example, the Global Climate Change Alliance (GCCA) entails a working component entitled "Applied forest management: building capacities for the restoration of watersheds impacted by natural disasters", which aims to develop methodologies to assist land owners and logging concessionaires in addressing forest degradation after hurricanes and fires. The outputs of the GCCA component are in their nascent stages and may involve the adoption of recommendations to address the issue of sale of logging concessions or conversion to agriculture after degradation.

The GCCA component includes activities to develop a national system of forest nurseries to support replanting efforts following hurricanes and may be extended to include replanting after logging.

The World Bank funded Key Biodiversity Areas (KBA) project aims to build capacity in sustainable forest management in Belize, develop new and improved silvicultural systems, and support the revision of forest laws. This KBA project has not yet commenced, and so there is the possibility of further aligning REDD+ strategies with project objectives.

Budget 2c: Summary of REDD+ Implementation Framework Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands US\$)				
		2014	2015	2016	2017	Total
The role of the government in the implementing of REDD+ strategy	Identification of institutions that have capacity and authority to plan, implement and monitor REDD+ activities	10				10
	Authorization to participate in (domestic and/or international) potential REDD+ transactions	5	5	5	5	20
Carbon Financing	Evaluation of options for financing mechanisms for REDD+ activities and transactions		15			15
Total		15	20	5	5	45
Government						
FCPF		5	5	5	5	20
UN-REDD Programme (if applicable)						
Other Development Partner 1 (name)						
Other Development Partner 2 (REDD-CCAD-GIZ)		10	15			25
Other Development Partner 3 (name)						

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

REDD+ activities must not only “do no harm” but they should also “do good.” It is therefore important to manage social and environmental risks and impacts. The SESA requirement of the FCPF is essentially a strategic consideration of the REDD+ strategies to environmental and social priorities in the forestry sector and the opportunity costs of conserving forests. The ESMF, which is determined by The World Bank Operational Policies, establishes the framework for environmental and social management of future projects, policies, and activities of REDD+ implementation⁶.

SESA/ESMF Guidelines

REDD Country Participants are expected to incorporate social and environmental considerations of REDD+ readiness through a Strategic Environmental and Social Assessment (SESA). The guidelines for the SESA process are outlined as follows:

- 1) Undertake existing or new diagnostic work to identify and prioritize the drivers of deforestation and the key social and environmental issues associated with the drivers including those linked to the Bank safeguard policies. Diagnostic work should cover issues such as land tenure, sharing of benefits, access to resources, likely social and environmental impacts of REDD+ strategy options;
- 2) Undertake diagnostic work on legal, policy and institutional aspects of REDD+ readiness;
- 3) Assess existing capacities and capacity gaps to address the environmental and social issues identified;
- 4) Draft REDD+ strategy options taking into consideration the above environmental and social issues;
- 5) Develop framework in accordance with Bank safeguard policies to mitigate and manage the risks of the REDD+ strategy options, i.e., environmental and social management framework (ESMF);
- 6) Establish outreach, communication and consultative mechanisms with relevant stakeholders for each of the above steps.

As can be noted in number 5 above, the ESMF is part of the process of developing the SESA. The ESMF consists of environmental and social safeguards articulated by the following relevant World Bank Operational Policies. These policies are grouped into three different types and include the **1.) Environmental Policies** (Environmental Assessment - OP 4.01, Natural Habitats - OP 4.04, Forests - OP 4.36, Safety of Dams - OP 4.37), **2.) Social Policies** (Physical and Cultural Resources - OP 4.11, Indigenous Peoples - OP 4.10, Involuntary Resettlement - OP 4.12). The Cancun COP Decision 1/CP.16, Safeguards that seeks to respect the rights of indigenous peoples and ensure full and effective participation of indigenous peoples and local communities is also relevant to ensuring full compliance with SESA requirements.

Domestic Processes and Requirements Related to Safeguards

It has been the historical practice of the Government of Belize to manage its forest in an inclusive and participatory manner, partnering consistently with community based and non-governmental organizations in ensuring the sustainable management of forest resources. The relationship has at times been challenging but has lent to greater transparency, participation and continued dialogue. The government hopes to extend and augment that type of engagement in its implementation of REDD+.

⁶ Loayza, F. (2013), SESA and ESMF for REDD+ Readiness. The World Bank. Thailand. 2013.

terms of a formal process to ensure environmental protection, the Environmental Protection Act (EPA), Chapter 328 of the Laws of Belize, is the most comprehensive piece of environmental legislation in Belize. The law demonstrates, as stated in its preamble, the commitment of the Government of Belize to the protection and preservation of Belize's natural heritage to ensure that exploitation of the resources is consistent with maintaining ecological balance.

Part V of the EPA is devoted entirely to Environmental Impact Assessments (EIA) process. The EPA stipulates that any person intending to undertake any project, programme or activity which may significantly affect the environment shall cause an EIA to be carried out by a suitably qualified person to be submitted to the Department of Environment (DoE) for evaluation and recommendation. The EPA lists the areas that the EIA should evaluate, including effects on humans, flora and fauna, water, soil, air, ecological balance, among others. The EIA is required to include measures that should be undertaken to mitigate any adverse environmental effects, and statement of reasonable alternatives and justification for their rejection. Further, the EPA makes provision for the development of regulations prescribing procedures, guidelines, and the types of projects for which an EIA may be required. The EPA also mandates the involvement of the public in the EIA process. EIA Regulations were adopted in 1995 as subsidiary to the EPA. These Regulations outline criteria for environmental impact, define significant environmental issues, and stipulate the minimum content of an EIA. Of major significance in the EIA Regulations are two schedules: one which categorizes projects for which EIA is mandatory, and the other that stipulates those projects that must undergo a screening process to determine whether an EIA is necessary. Also stipulated are those projects for which EIA is not required.

In terms of the social protection and engagement of indigenous people, there are no domestic laws or regulations that specifically provide safeguards for the economic, social and cultural, or land rights of indigenous peoples other than the general provisions of the Belize Constitution that protects the fundamental freedoms of all citizens including freedom from discrimination. Indigenous peoples are recognized in the Preamble of the Constitution but are offered no other recognition of accompanying rights. The preamble which was amended by Act No. 2 of 2001 makes explicit reference to the indigenous peoples of Belize. The relevant section states:

*"WHEREAS the people of Belize ... (a) affirm that the Nation of Belize shall be founded upon principles which acknowledge ... faith in human rights and fundamental freedoms ... and the equal and inalienable rights with which all members of the human family are endowed ... (e) require policies of state which protect ... the identity, dignity and social and cultural values of Belizeans, including Belize's **indigenous peoples** ... with respect for international law and treaty obligations in the dealings among nations."*
(Emphasis added)

There are three recognized indigenous groups in the country namely the Maya (Q'eqchi, Mopan and Yucatec) and the Garifuna. The Garifuna are for the most part coastal communities unlike the Maya, especially the Q'eqchi and Mopan who are generally forest dependent. On July 25th 2013, the Court of Appeal issued a ruling that affirmed the rights of Maya people to their ancestral territory but stated that the Government of Belize is not obligated to provide relief in the interest of those rights⁷. Both the Government of Belize and the Mayas have appealed to the Caribbean Court of Justice (CCJ) for final legal ventilation of the question of Maya land rights. The application of OP 4.10 is therefore going to be very essential in the engagement of indigenous peoples in ensuring their participation and the safeguarding of their rights under REDD+. There are approximately 30,107 persons who self-identify as Mayas living in Belize. Officially, about 18,222 Q'eqchi and Mopan Mayas are living the Toledo District and continue to practice a way of life that is distinct from mainstream society given their political and cultural institutions. They are spread out across the western part of the district in 38 rural villages. The actual population however is probably higher than reflected in the official figures. Belize as a State has not ratified the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIPS) nor ILO Convention 169 which gives broad recognition to the rights of indigenous people to their social, cultural, political and land rights. It has however subscribed to the Charter of the Inter-American and also

⁷ The Attorney General of Belize and the Minister of Natural Resources and Environment v TAA and MLA. Civil Appeal 27 of 2010. Belize Court of Appeal, July 25, 2013.

American Convention on Human Rights and the American Declaration of the Rights and Duties of Man. The consultation requirements of the ESMF will also augment the consultation requirement of the domestic EIA law as there are no formally or legally established consultation regulations or protocols when engaging local communities or indigenous peoples under the Act. This however does not mean that consultation with affected communities does not occur. It is the standardization and institutionalization of the process that needs to be put in place.

Key gender concerns will also be analyzed in the developed of the SESA in order to manage any potential gender-based risks and to promote equal benefits and opportunities especially during the implementation of RED+ strategies. According to Belize's Revised Gender Policy 2013 men tend to be represented primarily in agriculture activities, in the forest and fisheries sectors. Meanwhile, women's high unemployment rate and their tendency to be unemployed for longer periods than men, place women at a disadvantage in qualifying for some social security benefits and as such, without real income. The Policy further states that during times of external shocks to the households, women's ability to earn an income is further compromised and that woman engaged in small scale informal economic activities are especially vulnerable. The principle of gender equity highlighted in the Policy requires that State policies, regulations, programmes and allocation of resources must ensure fairness and justice in the distribution of benefits and responsibilities between women and men, boys and girls. The concept of equity in the Policy recognizes that women and men have different needs and power, and that these differences should be identified and addressed in a manner that rectifies the imbalance between the sexes. This extends to men and women of all ages, geographic location and ethnicities. Similarly, the principle of gender mainstreaming requires development actors and practitioners to engage in evidence-based policy making that mainstreams a gender perspective into all stages of national policies, regulations and programmes. While the principles provide excellent overarching guidance there are not specific strategic considerations given to access, use and management of natural resources that addresses gender-based risks and access to equal benefits disparities in participation in the sustainable management of natural resources including land and forests. These will be addressed in the development of the ESMF especially among indigenous communities.

Development of SESA and ESMF for Belize REDD+ Program

The diagnostic work on social and environmental considerations for SESA will be based on Component 2 of the R-PP where the assessment of Land Use, Land Use Change Drivers, Forest Law, Policy and Governance issues are identified and addressed. This includes issues such as land tenure, sharing of benefits, access to resources, likely social and environmental impacts of REDD+ strategy options. The potential risks and opportunities for REDD+ implementation are also addressed by Component 2b. The identification and analysis of stakeholders is carried out under Component 1b since initial information sharing and early dialogue has already started. This will be further refined in order to ensure that all key stakeholders are fully identified and engaged. Such engagement including consultations of key stakeholders is addressed in Component 1c as it outlines a consultation process that will take place. Further elaboration of a stakeholder consultation and participation plan will be carried out at the start of readiness activities. The consultation and participation process required for the development of the ESMF is incorporated into the consultation plan. This includes sharing the consultation plan and incorporating feedback received from stakeholders and adhering to the principle of free, prior and informed consultation as specified in Operational Policy 4.10. The gap analysis where proposals for institutional strengthening are presented is capture in Component 2c where a REDD+ Implementation Framework is elaborated.

The development of the ESMF will be based on the inputs from SESA and this is to ensure that the World Bank's policies are adhered to in order to mitigate and manage the risks related to the REDD+ strategy options to be implemented. This applies to specific investments, actions, policies and regulations, and programs including carbon finance transactions. The development of the ESMF will ensure that there is informed participation and consultation. In all aspects of the development of the ESMF the participation of relevant stakeholders will be central to the process. In terms of Operational Policy 4.10, a social impact assessment will be developed including actions and measures to avoid, mitigate or compensate for any adverse effects. There will also be measures to ensure that culturally appropriate benefits accrue to affected persons. The criteria for obtaining benefits will be developed jointly with the affected persons in a participatory manner. Gender concerns will be addressed in the

process especially as it relates to access and control of natural resources and forests in this instance. The ESMF will also ensure that there is an established Grievance Redressal Mechanism that can be accessed by those affected one way or the other by REDD+ strategies and actions. A monitoring mechanism will also be built into the process and stakeholders will have the opportunity to participate in monitoring of the implementation of the safeguard mechanisms. The Belize REDD+ initiative does not envision any resettlement activities as a consequence of REDD+ program therefore a Resettlement Policy Framework will not be necessary and so only a Process Framework will be developed where restrictions to access to natural resources may occur.

R+CU will oversee development of the SESA Summary Report and the ESMF according to the following steps:

1. Undertake review of environmental and social risks and potential impacts (positive and negative) of proposed REDD+ strategies so as to refine the strategies and eventual formulation of final REDD+ strategies.
2. Identify legal, policy and institutional measures necessary for the management of environmental and social risks and potential impacts including measures to strengthen gender considerations.
3. Determine which of the World Bank's Operational Policies are triggered given the strategies and options identified for REDD+. This will be led by the R+CU in consultation with the TEG.
4. Develop TOR for the development of the ESMF and shared with the Project Steering Committee and the TEG.
5. Undertake studies by consultants to develop ESMF. Consultants will be retained to undertake the development of the safeguard mechanisms with oversight by the R+CU. The TEG will provide technical guidance for the SESA and ESMR and the final documents will be approved by the Project Steering Committee.
6. Coordinate consultation on social safeguards based on principles of free, prior and informed consultation. This will be done by consultants with the support and participation of the R+CU.
7. Review of Draft SESA Summary and ESMF Reports. Once the summary and reports are complete they will be reviewed internally.
8. Disclose the SESA Summary and ESMF Reports to key stakeholders for feedback and input. This will be done through stakeholder meetings and workshops.
9. Incorporate feedback from key stakeholders into relevant documents. The consultants will be required to complete this process in order to have the final documents prepared.
10. Publish final SESA Summary and ESMF Reports and disclose to the general public. The documents will be made available both locally by the R+CU and the generally by the World Bank through its own disclosure mechanisms.
11. Incorporate SESA Summary and ESMF into Readiness Package. The final summary and reports will all form part of the Belize's REDD+ Readiness Package.

Budget 2d: Summary of Social and Environmental Impacts during Readiness Preparation and REDD+ Implementation Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands US\$)				
		2014	2015	2016	2017	Total
SESA Summary Report	Review of environmental and social risks and potential impacts	10				10
	Identify legal, policy and institutional necessary measures	10				10
Prepare ESMF to examine the issues and impacts associated with projects, activities, or policies/regulations change	Preparation of Environmental Management Framework	30				30
	Preparation of Social Safeguard Mechanisms	40				40
Stakeholder Engagement	Meetings and Workshops	20	10			30
	Logistical Support	10	10			20
Capacity Building	Workshops targeted at Indigenous people and local communities	10				10
Total		130	20	0	0	150
Government						
FCPF		130	20	0	0	150
UN-REDD Programme (if applicable)						
Other Development Partner 1 (REDD-CCAD-GIZ)						
Other Development Partner 2 (name)						
Other Development Partner 3 (name)						

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

A key step for engaging in REDD+ is the development of a reference level against which future performance will be measured. The starting point for developing a reference level is for countries to generate robust estimates of their historic forest cover trends followed by historic emissions resulting from deforestation and degradation. This section describes a plan of work for establishing estimates of historic emissions from deforestation and forest degradation from hurricanes, fires, pests and logging. In this section the following are described: (A) definitions of forest, deforestation and degradation; (B) the setting of a reference period; (C) the steps taken to establish a national forest reference level; and (D) the steps taken to establish a national forest emissions reference level.

A. Definitions:

Belize working definitions in the context of REDD+:

Forest (adapted from FAO):

Any natural or planted tree assemblage, used for the production of wood and/or conservation of ecosystem goods and services, with average total tree height of 5 m or more at maturity, covering an area larger than 0.5 ha and exceeding 10 percent crown cover, including young natural and planted tree assemblages which have yet to reach these thresholds and areas normally forming part of such assemblages which are temporarily unstocked due to anthropogenic or natural disturbances but which are expected to meet these thresholds in situ. Excluding agroforestry areas, urban parks and tree assemblages planted primarily for the production of non-wood products. Including the area covered by forest roads, cleared tracks, fire breaks and other small openings within forests as herein defined.

Deforestation:

A change in land use from forest (as defined in its entirety above) to some other land use as a result of anthropogenic or natural causes.

Forest degradation:

a) A measurable instantaneous reduction in one or more components of above and/or below-ground forest biomass resulting from single or multiple independent or compounded anthropogenic and/or natural disturbances (e.g. logging, forest fires, pest outbreaks, hurricanes, agriculture, grazing), including from related post-disturbance mortality and/or consequent decline in forest productivity, taking into account any forest re-growth in the measurement;

b) a measurable gradual reduction in one or more components of above and/or below-ground forest biomass resulting from a decline in forest productivity associated with indirect anthropogenic or natural stressors (e.g. climate change, severe seasonal drought);

c) both a) and b) are assessed relative to the most recent available estimate of forest biomass before the degrading event(s), and should be measured in the case of a) as soon as possible after the event(s), or in the case of b) after ample time has elapsed to allow a measurable change.

d) the degrading event must not nullify any criteria which defines a forest (e.g. permanently preventing vegetation from being able to meet forest criteria in situ or conversion of a forest to an agro-forestry area), otherwise it is to be considered deforestation.

B. Reference period

Belize received independence in 1980 from Great Britain. Around the same time the focus shifted dramatically from conservation and expansion of the forest estate to expansion of agriculture. Also, just prior to the 1980's the use of satellites to monitor land cover and land use began. The period 1980 to present thus represents an ideal reference period for the estimation of historical deforestation and degradation trends.

C. Forest reference level

There has been a wealth of studies examining Belize's forest cover over the past few decades, and any one or number of them can be used to estimate a forest reference level. These studies are listed in Table 13 below. However, precision and repeatability have been major concerns regarding the use of these studies for the development of a national forest reference level as methodologies used remain largely unclear. Hence, a new study of Belize's forest cover was commissioned for the period 1980 to present.

Table 13: Belize forest cover bibliography

N o.	Author	Pub. year	Domain	Thematic focus	Imagery	Data periods	Study type
23	Wright et al.	1959	National	Overall land cover	Aerial photos	1950s	Single period
11	Gray et al.	1990	National	Mangroves	Landsat	1987, 1989	Single period
25	Zisman	1993	National	Mangroves	Landsat	1987, 1989	Single period
10	Fairweather & Gray	1994	National	Overall land cover	SPOT	1989, 1990, 1992	Single period
12	Iremonger & Brokaw	1995	National	Overall land cover	Landsat	1993	Single period
20	White et al.	1996	National	Overall land cover	Landsat	1994	Single period
18	Vasquez	1997	Rio Bravo	Forest cover	Landsat	1996	Single period
21	White et al.	1998	central Belize	Overall land cover	Landsat	1996	Single period
26	Zisman	1998	National	Mangroves	Aerial photos, Landsat	1987, 1989, 1990, 1992	Single period
7	DiFiore	2001	Belize River	Forest cover	Landsat	1989, 2001	Multitemporal
13	Meerman & Sabido	2001	National	Ecosystems / overall LC	Landsat	1993, 1996, 1998	Single period
22	White et al.	2001	Toledo	Overall land cover	EO-1, Landsat	2001	Multitemporal
8	Ek	2004	central Belize	Overall land cover	Landsat	1993, 2003	Multitemporal
16	Penn et al.	2004	Maya Mountains	Ecosystems / overall LC	IRS	1999	Single period
9	Emch et al.	2005	Toledo	Overall land cover	Landsat	1975, 1999	Multitemporal
14	Meerman	2005	National	Ecosystems / overall LC	Landsat	2004	Single period
1	Binford	2007	Toledo	Forest cover	Landsat	1991, 1996, 2001	Multitemporal
4	Cherrington et al.	2010	National	Forest cover	Landsat	1980, 1989, 1994, 2000, 2004, 2010	Multitemporal
5	Cherrington et al.	2010	National	Mangroves	ASTER, Landsat	1980, 1989, 1994, 2000, 2004, 2010	Multitemporal
15	Meerman et al.	2010	National	Forest cover	Landsat	1990, 2000, 2004	Multitemporal

N o.	Author	Pub. year	Domain	Thematic focus	Imagery	Data periods	Study type
24	Wyman	2010	CBS	Forest cover	Landsat	1989, 2004	Multitemporal
2	Cameron et al.	2011	National	Savannas	IKONOS, PALSAR, SPOT	2002, 2003, 2004, 2006, 2007, 2008, 2009	Single period
3	Canto	2011	Belize district	Mangroves	Landsat	1989, 2000, 2010	Multitemporal
6	Cherrington et al.	2012	National	Forest cover	Landsat	2010, 2012	Multitemporal
17	Ruscalleda	2012	Toledo	Forest cover	Landsat	1980, 1989, 1994, 2000, 2004, 2010, 2012	Multitemporal
19	Weishampel	2012	Chiquibul	Forest cover	LiDAR	2009	Single period

This study was carried out using the long archive of Landsat images collected since the late 1970s and covers the period 1980 to present. The Landsat mission ensures continuity of data and there is strong compatibility between the various sensors launched over the mission period. Estimates of land cover derived from Landsat images over the period 1980 to present are thus highly homogenous and provide a reliable and robust source of historical forest cover trends.

The details of the methodologies used to estimate forest cover and forest cover change are provided in Cherrington et al. (2010). The results of this study shows that Belize's forest cover reduced from around 74 percent of its national territory to around 61 percent between 1980 and 2013 (Table 14).

Table 14: Belize forest cover trends 1980 to 2013.

Date	Forest cover		Change		change / yr.		% change	% Forest cover
	(ha.)	(acres)	(ha.)	(acres)	(ha.)	(acres)		
Nov-80	1,648,783	4,074,228	-	-	-	-	-	74.4%
Dec-89	1,616,027	3,993,286	32,756	80,942	3,593	8,878	0.22%	72.9%
Mar-94	1,536,025	3,795,597	80,002	197,689	18,828	46,524	1.17%	69.3%
Mar-00	1,459,301	3,606,009	76,724	189,589	12,784	31,591	0.83%	65.8%
Feb-04	1,416,530	3,500,319	42,771	105,689	11,033	27,262	0.76%	63.9%
Jan-10	1,391,391	3,438,200	25,139	62,120	4,220	10,427	0.30%	62.8%
Apr-12	1,366,300	3,376,197	25,092	62,003	11,231	27,753	0.81%	61.6%
Mar-13	1,354,155	3,346,188	12,144	30,009	12,144	32,621	0.97%	61.1%

The annual deforestation rate was calculated using the formula suggested by FAO where $r = ((A_2/A_1)^{1/(t_2-t_1)} - 1)$, and t and A are the year and area, respectively, and 2 and 1 refer to ending and initial times, respectively. The annual deforestation rate experienced over the period 1980 to 2013 was approximately $-0.6 \text{ percent yr}^{-1}$.

Because this rate includes the entire post-independence period, when agricultural expansion was at its highest in the history of Belize, and because the absolute change per year (Table 14) shows no major trend (Figure 8) the historical rates are expected to continue into the future. Therefore, the approach to estimate forest cover and greenhouse gas emissions trends into the future will be one based on historical trends, as opposed to modeling.

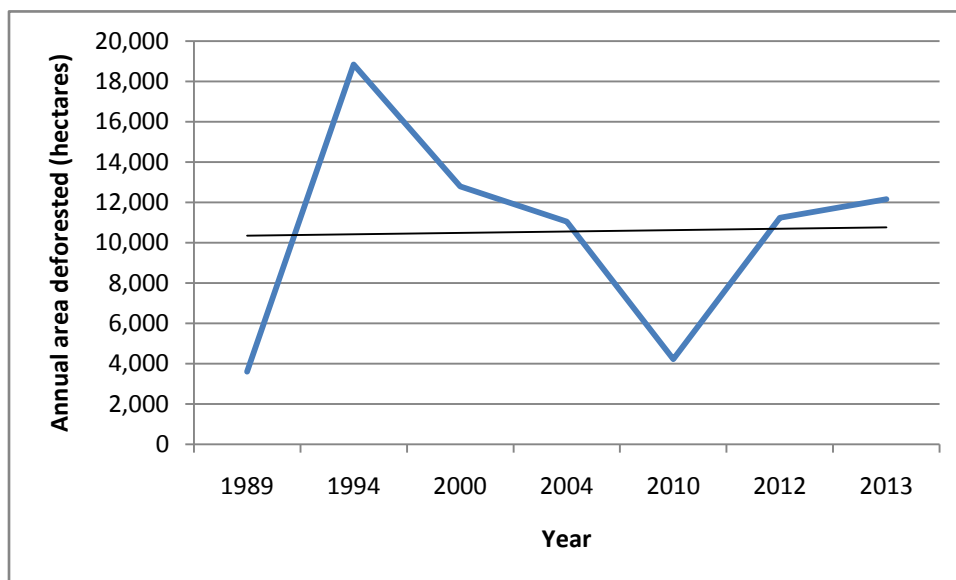


Figure 8: Deforestation trend over the period 1980 to 2013.

D. Forest reference emission level

There is a wealth of forest inventory data dating back to the 1950's for Belize which can be used to estimate historical forest reference emissions level. These old forest inventory data are valuable as they represent forest carbon stocks prior to the start of the reference period in 1980, when controls on logging and the expansion of small-scale logging began in earnest. It will be necessary to compile this data through a study to be commissioned as part of Belize's readiness plan for REDDD+.

In addition to the availability of history forest inventory data, recent forest inventory data has been collected for over 1000 forest inventory plots ranging in size from 0.5 to 1 hectare over the period 2007 to 2013 (Figure 9). These plots will form the basis for present forest carbon stock estimation. A comparison between estimates of forest carbon stock around 1980 using historical forest inventory data and forest carbon stock at present using present forest inventory data will provide a robust baseline for forest emissions over the reference period.

Permanent sample plots, of which there are currently 30 – each 1 hectare in size, will provide valuable data on carbon stock changes due to logging, fires, and hurricane degradation, as many of the 30 plots have been logged, affected by fire or hurricane. Also, carbon sequestration rates for undisturbed and disturbed forests can be estimated from these 30 permanent sample plots for the majority of forest types in Belize. The permanent plots were first established in the 1990s and since then only about half have been re-measured to provide data from 1990 to present. The remaining half is required to be re-measured and will provide additional data to estimate a degradation baseline due to logging, hurricanes and fires. Work is ongoing on the re-measurement but additional sources of financing are needed.

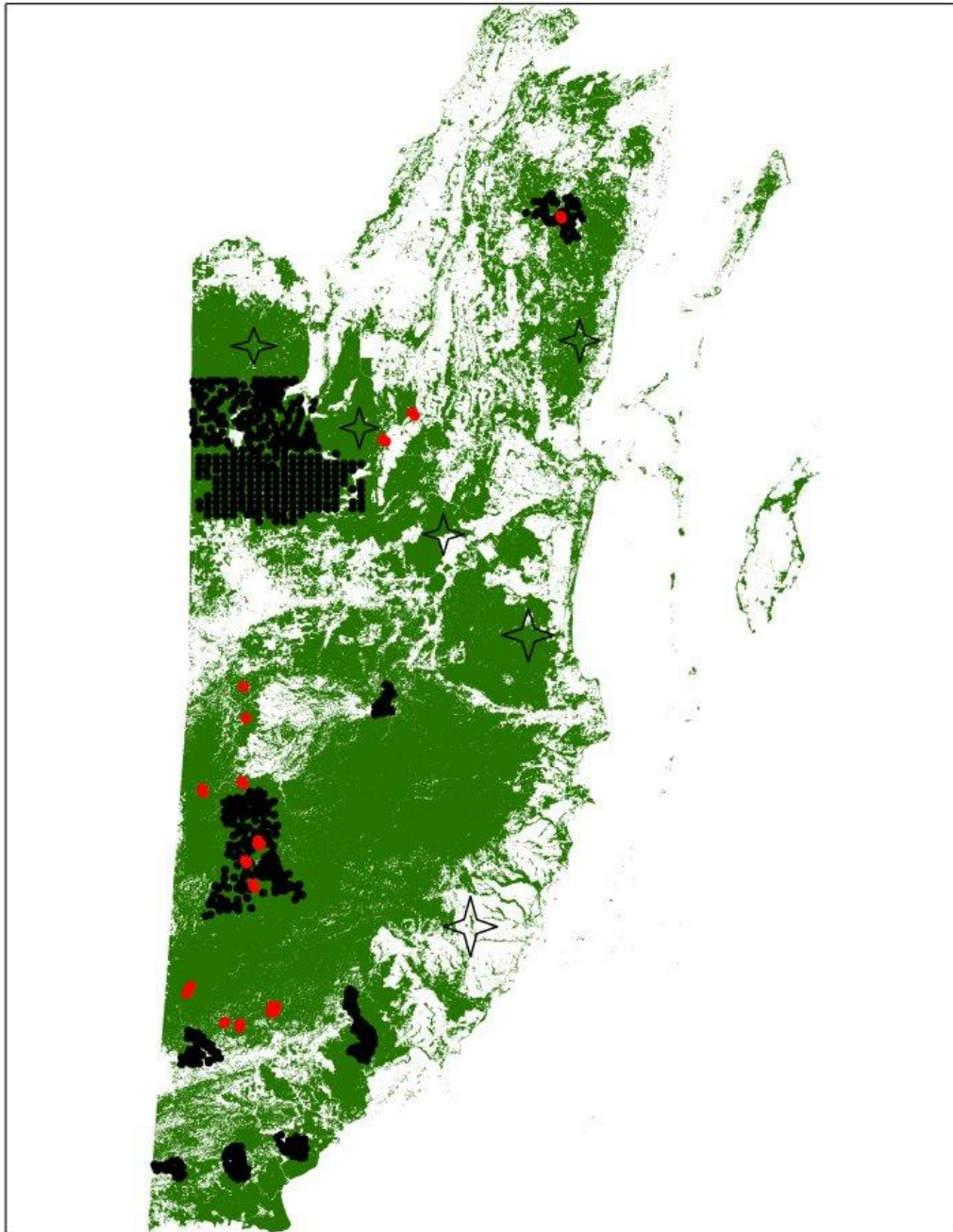


Figure 9: Expanse of forest inventory plots surveyed from 2005 to 2013. Black symbols represent static forest inventory plots while red symbols represent permanent forest plots. Green areas are forests in 2010.

I. Data requirements

In order to develop a robust forest reference level that takes into account deforestation rates in various forest types, further remote sensing work is needed as well as further remote sensing data. Through the GIZ funded REDD project, Belize has been able to obtain high resolution RapidEye images which it plans to use to classify present forest types. However, forest types may have changed since the start of

the reference period and it will be necessary to compile all available historical forest type maps, of which there are many.

In addition it will be necessary to collect data in non-forest cover types such as agriculture, in order to estimate an emissions reference level for land use change. This will require permanent agricultural plots to be set up.

II. Current capacity and capacity requirements

Limited capacity exists in government agencies to carry out advanced remote sensing and mapping work. It will be necessary to inject capacity in the form of qualified and experienced experts into the responsible agencies. Building of capacity in current staff of government, private and non-governmental agencies is also worthwhile but cannot be expected to make a large impact as the type of expertise needed cannot be quickly developed in people with other duties and responsibilities.

III. Process for developing a national reference level

There are several regional models available which can be followed when developing a national reference level for Belize. However, Belize is somewhat unique in that there is a multitude of data available which can inform the development of a national reference level. These include: nationally accepted deforestation rates, national system of permanent sample plots, forest cover datasets, land use datasets, identified deforestation drivers, and national plan to expand the forest monitoring network to cover all forest types. In addition, organizations are well versed in REDD and are already participating in national REDD planning. Figure 10 shows the process to be followed for the development of a national reference level:

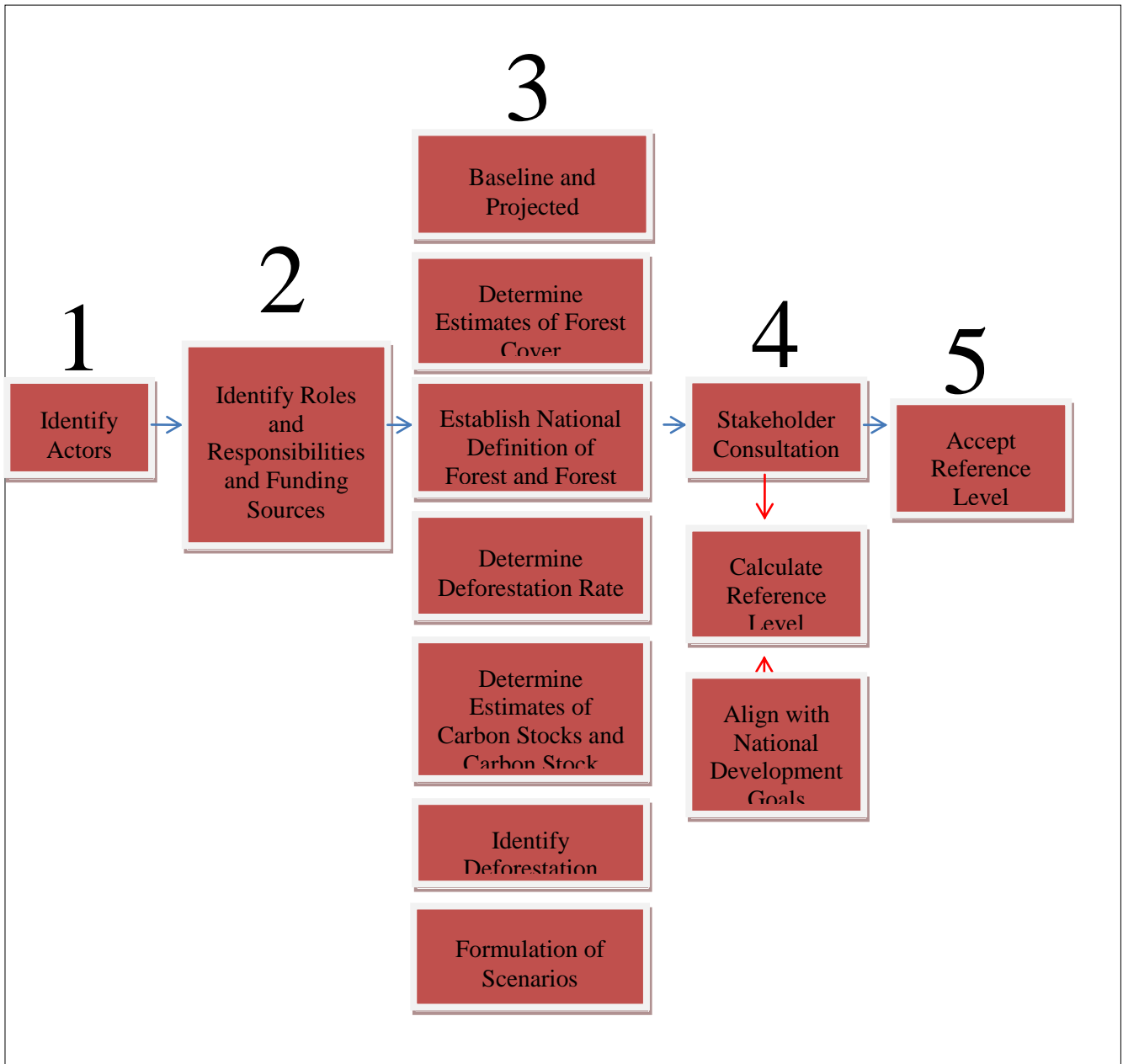


Figure 10: Process of Developing National Reference Level

Budget 3: Summary of Reference Level Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands US\$)				
		2014	2015	2016	2017	Total
Design and establishing a reference scenario model in readiness framework	Creation of forest cover task force		10			10
	Integration of MRV data and result into reference scenario modeling		10	20		30
Develop reference models	Adoption of mapping- and validation methodology ; Hardware; Forest+land cover mapping; Validation, publication; Reforestation strategy		100			100
	Establish a national registry for carbon project; Carbon stock verification on areas outside of reserves		50	30	20	100
Conduct Independent assessment	Capacity building needs assessment		30	20	20	70
Total		0	200	70	40	310
Government						
FCPF			200	70	40	310
UN-REDD Programme (if applicable)						
Other Development Partner 1 (REDD-CCAD-GIZ)						
Other Development Partner 2 (name)						
Other Development Partner 3 (name)						

Component 4: Design Systems for National Forest Monitoring and Information on Safeguards

The United Nation Framework Convention on Climate Change (UNFCCC) has several methodologies available for monitoring of REDD activities. Identifying the suitable methodologies for monitoring changes in forest cover, associated carbon stocks, GHG emissions, incremental changes due to sustainable management of forest, and reduction of emissions from deforestation and forest degradation in Belize is crucial to a formidable REDD strategy. The UNFCCC suggests a combination of remote-sensing and ground-based assessments for estimating and monitoring reductions in emissions from deforestation and forest degradation. The UNFCCC makes further specifications for monitoring systems such as:

- Combining remote sensing with ground approaches to forest carbon inventories for estimating emissions / removals forest;
- Providing calculations that are transparent, consistent, accurate and feasible and to reduce uncertainties and to calculate the remaining uncertainties and taking into account national capacities;
- Ensuring that the results of the system are available and ready for review, as agreed at the Conference of the Parties.

The UN-REDD program also provides specified considerations for development of a national MRV system:

- 1) Monitor What Matters
- 2) Warrant Multi-stakeholder process
- 3) Ensure Quality, Reporting and Verification compliance
- 4) Guarantee Availability and Accessibility of data and Methods
- 5) Support Investment and Sharing of Benefits
- 6) Strengthen Institutional, Technical, Legal and Policy Development Capacities

Two important sources for developing a robust MRV system include the IPCC GPG LULUCF and the GOF-C-GOLD Sourcebook. The methodologies within these provide a basis for efficient and accurate measurement for all activities under REDD+, including conservation, sustainable forest management and enhancement of carbon stocks.

Monitoring System and National GHG Inventories

In order to fulfill Belize's commitments under the Convention to the Conference of the Parties (COP) Belize must submit National Communications detailing what measures it is taking to address climate change. This includes a national inventory of sources and sinks of greenhouse gases using UNFCCC mandated IPCC guidelines. The national forest monitoring system will be used to support the development of a national inventory of greenhouse gases to transmit reports on emissions and removals to the UNFCCC in its National Communications. The GHG inventory for Belize has been done using the IPCC1996 Revised Guidelines as a basis for estimating changes in forest area and emissions with analysis utilizing the most current updated values provided by the IPCC. The conversions of forest (deforestation) to other land uses and the unsustainable use of forests (degradation) accounts for around 20% of global emissions. In Belize, Land Use, Land Use Change and Forestry (LULUCF) account for around 96% of our total emissions. The Government of Belize in its third National Communications will attempt to address data gaps which contribute to the degree of uncertainty of the estimates (%). Data gaps are currently related to the data unavailability for regions and sectors of the

country and inconsistency in reporting/ recording processes. The third national greenhouse gases inventory is expected to benefit from the technical assistance provided under the USAID/EPA/CCAD GHG Inventory Standardization Project that has been underway in the Central American countries since late 2003. This new technology will allow for the comparative analysis of inventory results with the objective of refining the tools and the national processes used to estimate the emissions.

Presently Belize has no standardized practice for measuring carbon stock but several private initiatives have established sample plots using methodology under the Voluntary Carbon Standard (VCS). The Forest Department is also revisiting Belize's advanced network of thirty 1-ha permanent sample plots, first established under strict protocol in the 1990's, to quantify not only present carbon stocks but also long-term carbon dynamics, examining trends that will help to define whether Belize's forests are sinks or sources of carbon and the magnitude of the sink or source.

In the context of REDD, the system of monitoring should be understood as a - by the drivers key of deforestation and forest degradation and to the improvement of the inventories of carbon as contemplated in the evaluation of the component 2a of past trends, as well as the performance of REDD+ strategies identified in the component 2b. Additionally, the MRV system needs to be designed to facilitate comparison between land area and the calculations of GHG emissions for the reference level set for the component 3, and to monitor the many benefits, other impacts and governance. The FCPF mandates MRV system to measurement that includes remote sensing and ground-based inventories, reporting that is transparent, consistent, and has accurate estimates and Verification that is transparent and available for review.

A strong monitoring system in Belize will need to account for changes and target responses to drivers on a progressive basis will be needed; training in Remote Sensing, carbon trade, carbon stock taking, climate change, participatory governance will be needed to improve and bolster existing capacities. On a macro level, the socio-economic situation will have to be increased so as to reduce the level of poverty and unemployment. Similarly, a nationally led sensitizing campaign highlighting the importance of forests to livelihoods, sustainable development and climate change is also necessary.

4a. National Forest Monitoring System

A robust National Monitoring System for REDD+ should include systematic and repeated measuring and observation of forest resources, their management, uses and users; and periodically deliver valid, representative and relevant information on status and trends for the country as a whole (CABI, 2007). See Annex 4 for more details.

In 1992, the Forest Planning and Management Project (FPMP) commenced implementation in Belize. This project was the result of the recently concluded Tropical Forestry Action Plan, which had suggested improvements in forest management, such as monitoring forest dynamics. By the late 1990's, the FPMP and the Forest Department had established 30 one-hectare permanent sample plots, with the objective of studying the dynamics of the Belizean forests. However, these were abandoned in 1997 and there was no continued re-measurement once the project closed. In 2010 with the support of Lancaster University and a Belizean PhD student, re-measurements of some of the 30 permanent sample plots were initiated. In 2011, in collaboration with CATIE, the joint re-measurements continued as these partners, including the Forest Department, embarked on a project to revisit a few selected permanent sample plots to obtain estimates of carbon stocks. Fourteen of these have been re-measured thus far giving the preliminary estimates of carbon potential in Belize. The Forest Department is planning to re-measure all the PSPs which should give reliable estimates of forest carbon stocks across representative forest and soil types in Belize. The research in these plots will also give preliminary estimates on the effects of hurricanes on carbon stocks; and help determine if the forests

are more than carbon stocks and actually actively sequestering carbon. In addition to these sites there are several static plots under monitoring by Protected Areas managers and Private initiatives.

This network of plots along with available satellite imagery can serve as the basis of national forest monitoring of carbon stock and forest cover change under REDD+. Given the relatively small size of Belize one would think that monitoring is not a significant challenge, and if the capacity to monitor were present, perhaps it would not be such an onerous task. However the capacity is limited and the need for an effective monitoring program that is replicable on a regular basis and fairly easily implemented is paramount to the success of REDD+ in Belize.

The monitoring program should have adequate indicators that would enable us to (Annex 4):

1. Quantify forest cover
2. Quantify the changes in forest cover
3. Quantify the carbon stocks (above ground)
4. Quantify the changes in carbon stocks (above ground)

A three tiered Monitoring program is recommended.

Tier 1 (Forest Inventory): Quantifying forest cover and changes in forest cover

REMOTE SENSING ANALYSIS:

- Obtain satellite imagery of country-wide coverage for the analysis of Forest/Non-Forest classification. Analysis to follow the protocols established by Cherrington et. al. in the previous forest cover analysis' conducted.
- Resolution of imagery to be of adequate resolution for the specific purpose.

VALIDATION:

- Establishment of field validation plots across the country; appropriate size and method of plot site selection to be determined through consultation with forestry experts in Belize.
- A participatory and inclusive approach will be necessary for this country-wide exercise. Long term concessionaires and other partners (e.g. large private land holders and park managers) will need to be consulted and incentivised to conduct the validation exercise.
- The collected data will then be utilized to make necessary adjustments to the desktop analysis.

Tier 2 (Permanent Sample Plots): Quantifying carbon stocks and emissions

MEASUREMENT OF CURRENT PERMANENT SAMPLE PLOT (PSP) NETWORK:

- Have a complete measurement of the current PSP network. Measurement to be done in accordance to the methodology established by Neil Byrd for tree measurements; apply allometric equations used in estimating carbon stocks (as amended by Percival Cho) and for measurements of Fine and Coarse Wood Debris (as outlined by Percival Cho).
- Establish appropriate timeframe for recurrent measurements.

EXPANSION OF PSP NETWORK:

- Expansion of the PSP network is to be inclusive of currently excluded forest types and appropriate representativeness of these within the network. This is important so that the Permanent Sample Plot network is sufficiently dense to be statistically robust/significant.
- Measurement of these additional PSPs is to be done in accordance with the established standards of the existing network. Recurrent measurements to be done along with all other plots.
- Data collected will need to be housed in a database for estimation of carbon stocks/carbon emissions and for projections based on the trends detected.

Tier 3 (Drivers of Deforestation and Forest Degradation)

DRIVERS OF DEFORESTATION

- Garcia et al, 2011, identified current drivers of deforestation. Based on these drivers and their geographic locations, "hotspots" can be identified and monitored. Implementation of specific forest management actions may be possible with early identification of areas and consultation of stakeholders. Future analysis of drivers can be carried out to assess effects interventions and REDD+ implementation.
- There needs to be an in depth assessment of the drivers of forest degradation. Degradation can be then mapped through the use of satellite imagery (of appropriate resolution) and application of appropriate processes, such as the Spectral Mixture Analysis. Figures of forest degradation (percentage per unit area) need to be adopted nationally.

The successful implementation of the program outlined relies heavily on the overcoming of critical barriers. Resource availability, institutional barriers and informational gaps are all issues that need addressing in order for the forest monitoring to be functional. These considerations are outlined in Annex 4 -Proposed Actions and Implementation Route. The results presented there come from a National Validation Workshop for an MRV System in Belize.

Other initiatives:

Under the Third National Communication to the UNFCCC Output 2 proposes the development of procedures to validate and improve national data for land-use, land use change and forestry (LULUCF) at the national level. This will involve work with national counterparts in the adoption of procedures to improve activity data for LULUCF, given that past communication exercises have shown this sector as being the most important source of emissions in Belize. Working alongside the Forest Department, the Caribbean Community Climate Change Center and key NGO groups, the project will attempt to validate the biomass values of the various (predominant) forest types or classes in Belize and deforestation rates by forest types. Data improvement will focus on reserve areas where the forest types are represented, in order to obtain national biomass values that should improve the quality of the estimates of emissions and sinks.

Activities under the third National Communications⁸:

- a. Definition of approaches to be adopted for data improvement

⁸United Nations Development Programme. 2011. PROJECT: Enabling Activities for the Preparation of Belize's Third National Communication to the UNFCCC

- b. Identification of forest categories that would be representative of forest cover at the national level
- c. Literature revision of comparable forest research in other countries
- d. Validation of data through field assessments
- e. Retrieval of national biomass factors and deforestation rates for use in the Inventory.

Capacity needs

Equipment and capacity to carry out the above proposed activities are limited. Skills and capacity to carry out field monitoring have been developed but there is need for strengthening. For example, although many members of forest dependent communities have participated in forest inventories in the past, the knowledge and skills quickly evaporate with time. Therefore, there needs to be an established annual training system to ensure a high level of readiness among partners willing to engage in any type of REDD+ MRV activities. More advanced scientific expertise is available in country to oversee forest inventorying and data collection in various forest types and agricultural land cover types.

Equipment needs will be high among those engaged in REDD+ MRV activities. Stakeholders including government agencies have little long-term equipment maintenance plans in place. Field equipment degrades quickly and often replacements are not budgeted. Furthermore, transportation is limited among those entities who may engage in REDD+ monitoring activities, and they cannot be expected to utilize existing transportation resources for high-intensity REDD+ monitoring activities.

One of the main capacity shortages is the limited expertise in country to design and adopt integrated indicators that go beyond specific species or ecosystems and that will be required to monitor REDD+ activities ranging from carbon emissions reduction performance to the impact of socio economic benefits and perverse impacts on communities. A large scale and multi-sectoral training programme will be necessary to address these shortages.

There is also need to establish a program for the construction and improvement of the allometric models used to estimate biomass of the country's forest species. Training in biometrics is of critical importance to the success of REDD+ MRV.

Proposed institutional and participatory arrangements for MRV

Monitoring is best performed in Belize through multi-stakeholder/participatory arrangements. It is proposed that at the high level of data analysis and verification, a partnership is required between government and academia. In particular, the REDD+ unit and the Environmental Research Institute of the University of Belize (ERI) can cooperate in overseeing REDD+ monitoring activities as they occur with the help of stakeholders.

It is envisioned that in the case of monitoring activities occurring in and around community and indigenous forests, that villagers will be engaged actively in carrying out field work. The National Biodiversity Monitoring Programme (NBMP) spearheaded by ERI represents an ideal opportunity to engage a stakeholder driven approach to monitoring biodiversity in the monitoring of REDD+ activities, as they are intricately related. For example, the NBMP can train and employ field technicians from communities to do data collection which is then fed to the larger coordinating entity in charge of data analysis and reporting.

Budget 4a: Summary of Monitoring Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands)				
		2014	2015	2016	2017	Total
National Forest Information System (NFIS)	Develop standards for NFIS		25			25
	Selection of indicators and monitoring methodology for reporting to CBD and REDD+	42.5	41			83.5
	Train REDD Coordination Unit and Relevant stakeholders in software		10	5		15
	Gather existing relevant data and input in system		5	5		10
Measurement Verification and Reporting (MRV)	Evaluate/expand PSP system, re-measurements of existing network		15	100	50	165
	Train FD personnel, CBOs, NGOs in MRV methodology		20	10	5	35
Total		42.5	116	120	55	333.5
Government						
FCPF		0	25	95	55	175
UN-REDD Programme (if applicable)						
Other Development Partner 1 (GEF-KBA)			40	5		45
Other Development Partner 2 (REDD-CCAD-GIZ)			10	20		30
Other Development Partner 3 (GEF-BEA)		42.5	41			83.5

4b. Designing an Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards

The Cancun COP Decision 1/CP.16 on Reporting on Safeguards calls for a system of how safeguards are being and addressed and respected throughout the implementation of REDD+ activities. Also, in addition of the carbon benefits in the reduction of deforestation and forest degradation there are other multiple benefits, impacts and governance issues that can arise as a consequence. Some of the benefits may include the enhancement of rural livelihoods, conservation of biodiversity and improved forest governance. The Cancun safeguards also seek to ensure that there is respect for the rights of indigenous peoples and local communities, the full and effective participation of stakeholders and there is greater transparency and effectiveness in forest governance. There are already nascent systems in place that can be extended to form a more comprehensive Information System for these co-benefits and other impacts and safeguards.

National Forest Information System and REDD+ Registry

The system to monitor the non-carbon aspects of Belize's REDD+ program will be integrated into the National Forest Information System and REDD+ Registry. The combination of a National Forest Information System and Registry will provide a comprehensive monitoring of biometric and dendrometric parameters and indicators such as deforestation, forest area, type of forest ecosystems as well as assessment of management of protected areas, application of certification schemes, law enforcement, but will also include stakeholder participation and/or indigenous peoples' participation and other non-carbon aspects.

Approach to Developing Non-Carbon Monitoring System⁹

Pre-design Phase

Awareness raising and capacity building activities will be undertaken to raise awareness of REDD+, potential impacts and established safeguard mechanisms. This activity will not be undertaken in isolation of the ongoing consultation activities but will instead be part and parcel of that process including the development of the ESMF frameworks. The results of the social assessments will be incorporated in this phase. Capacity building and logistical support will be provided to the Standards Monitoring Group that will oversee the development and implementation of the monitoring system.

Process Facilitation and Structure

The R+CU will organize meetings and consultations and compile all relevant information necessary for the monitoring system to be developed. The TEG will play a very critical role in assisting the R+CU in the identifying technical indicators and data collection procedures for the monitoring system. The R+CU will coordinate all planning activities in this regard.

Establish Standards Monitoring Group

The purpose of the Monitoring Group is to provide oversight in the application of the standards and in the monitoring of data collection and assessments. The Monitoring Group will fall under the National Forest Information System and REDD+ Registry. Members of Monitoring Group will be comprised similar to the RASC. The Monitoring Group members will include government ministries, department and agencies, civil society, private sector, and local communities including indigenous peoples. It is important that women's rights and interests are effectively represented on this body. A specific TOR and decision-making procedures will be defined for the group before it officially begins its activities. The members of the group will all be appointed by the MFSSD and will not exceed 15 persons. The Monitoring Group will

⁹ The process of developing and initial design has been adapted from the REDD+ SES (CCBA) and the Governance of Forests Toolkit (WRI).

also adopt a work plan that for performance assessment but also how the process will be integrated with other safeguards mechanisms.

Country Indicator Selection and Prioritization

The range of indicators to be monitoring must cover multiple benefits, safeguards and key governance issues. This will be developed jointly by the Standards Monitoring Group and the TEG. Country-specific indicators will be selected for monitoring within the system. All national ratifications and subscriptions to relevant international conventions and declarations will be assessed. In selecting the indicators to monitor, the Standards Monitoring Group will adhere to the REDD+ SES Principles as follows:

- Principle 1: Rights to lands and territories and resources are recognized and respected by the REDD+ Program
- Principle 2: The benefits of the REDD+ Program are shared equitably among all relevant rights holders and stakeholders.
- Principle 3: The REDD+ Program improves long-term livelihood security and well-being of Indigenous Peoples and Local communities with special attention to the most vulnerable people.
- Principle 4: The REDD+ Program contributes to broader sustainable development, respect and protection of human rights and good governance objectives.
- Principle 5: The REDD+ Program maintains and enhances biodiversity and ecosystem services.
- Principle 6: All relevant rights holders and stakeholders participate fully and effectively in the REDD+ Program.
- Principle 7: All rights holders and stakeholders have timely access to appropriate and accurate information to enable informed decision making and good governance of the REDD+ Program.
- Principle 8: The REDD+ Program complies with applicable local and national laws and international treaties, conventions and other instruments.

These Principles and their associated Criteria will need further elaboration and must be subjected to consultations for a more complete and final version that is country specific. It is important that the indicators developed can serve the readiness activities phase as well as during REDD+ implementation. Nonetheless they have been selected as they fully comply with the UNFCCC safeguards for REDD+ programs.

Additionally, key issues as identified in the Governance of Forests Initiative (GFI) Framework will be adopted as appropriate. These issues include:

- a. **Forest tenure:** the broad spectrum of ownership, use, access and management rights to forests, which shape relationships between people and forests by defining who can use what resources, for how long and under what conditions.
- b. **Land use planning:** the iterative and multi-stakeholder process to determine optimal land uses that maximize benefits for current and future generations given the economic and social conditions of an area.
- c. **Forest management:** the management and control of various different uses of forests, including conservation and ecological uses, community uses, extractive uses and conversion for agriculture, infrastructure, or other economic activities.
- d. **Forest revenues and incentives:** collection and management of revenues from productive functions on forested land, and the design and implementation of economic incentives that affect forests.

Organize Consultations on Indicators

As with the pre-design phase, the consultations must be incorporated into general consultations activities unless it is impractical to do so. The draft indicators must be provided for public comments and this can be done using a variety of methods including workshops, meetings and other forms of soliciting comments. It is important that there is stakeholder input and buy-in for the draft list of indicators. As with all consultation activities under REDD+ it must be gender-sensitive and must be appropriately communicated to indigenous peoples. The comments, feedback and input must be properly documented and collated. Once the final version is approved by the Standards Monitoring Group, it will be released to the general public.

Monitoring and Assessment Plans

The monitoring and assessment plans will establish a systematic approach to data collection including who will be involved. This includes determining sources of information, methods of data collection and analysis and the responsible parties. The process to disseminate the results of the assessments will also be presented as it is important to make them available to the public to encourage transparency. The Standards Monitoring Group will approve all assessment plans prior to their execution. It is likely that data collection for some indicators may not be possible at the start of the process but this should not mean that they are excluded from the list of indicators. An M&E consultant will be retained to assist in developing the monitoring and assessment plans.

Data Collection and Analysis

The monitoring and assessment plans will be used for data collection and this will be led by the R+CU based on established methodologies. A draft report of the results must be prepared based on the performance of the selected indicators. The report must show clear quality control measures in order to ensure there is confidence in the results.

Review and Publication of Monitoring and Assessment Report

There must be consultations on the results of the draft report. This is to facilitate stakeholder input into the report prior to finalization and to improve the credibility of the report. Sufficient time must be provided for stakeholders to provide input. It must be shown how feedback from stakeholders has been incorporated into the draft report. The Report must be approved by the Standards Monitoring Group and legal review by the MFSSD prior to release to the general public. Summary sheets of the results of the final report should also be prepared for dissemination.

Budget 4b: Summary of Non-Carbon Monitoring Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands)				
		2014	2015	2016	2017	Total
Predesign Phase Preparation	Awareness and Capacity Building	5	5			10
	Establishment of Standards Monitoring Group	10				10
	Administrative and Logistics Support for Monitoring Group	20	20	10	10	60
Development of Non-Carbon Monitoring System	Meetings and Workshops	20	10			30
	Consultations on Indicators	30				30
	Develop Monitoring and Assessment Plans	30				30
Implementation of Non-Carbon Monitoring System	Data Collection and Analysis	20	20	20	20	80
	Reporting	10	10	10	10	40
Total		145	65	40	40	290
Government						
FCPF		145	65	40	40	290
UN-REDD Programme (if applicable)						
Other Development Partner 1 (GEF-KBA)						
Other Development Partner 2 (REDD-CCAD-GIZ)						
Other Development Partner 3 (GEF-BEA)						

Component 5: Schedule and Budget

The period of implementation of the Readiness Activities outlined in this proposal is 4 years, with a total implementation budget of USD \$4,167,000. Overall implementation costs exceed that offered by the FCPF, but there are several initiatives both underway and in the pipeline that can co-finance the readiness activities outlined in the proposed strategy. Primary among these initiatives is the Program for the Reduction of Emissions from Deforestation and Forest Degradation in Central America and the Dominican Republic (REDD+ CCAD/GIZ). The Program's objective is to improve the general conditions within CCAD member countries for effective application of sustainable compensation mechanisms for the reduction of CO₂ emissions from deforestation and forest degradation. This program was the principal funder of the RPP development process in Belize and has actually helped to raise the profile of REDD+ in Belize. Phase one of this program is about to conclude in 2013 and a second phase has been approved by the German Federal Ministry of Economic Cooperation and Development, therefore it is anticipated that readiness activities will be supported. A pipe-line initiative is the Key Biodiversity Areas Project scheduled to commence in the first half of 2014. This project aims to build capacity in sustainable forest management in Belize, develop new and improved silvicultural systems, and support the revision of forest laws. There is the possibility of further aligning REDD+ readiness strategies within this project, and in fact some REDD+ activities are already incorporated. Certainly other fund-raising initiatives will be undertaken to support REDD+ in Belize, including exploring other multi-lateral and bi-lateral opportunities. Final co-financing arrangements will be made during the planning phases of the ongoing and pipeline initiatives. The overall budget for the RPP is presented by Component in the summary below. The detailed activities and associated budgets are located within each sub-component.

Component	Thousand US\$
Component 1: Organize and Consult	1269
Component 2: Prepare the REDD+ Strategy	1885
Component 3: Develop a National Forest Reference Emission Level and/or a Forest Reference Level	310
Component 4: Design Systems for National Forest Monitoring and Information on Safeguards	623
Component 6: Design a Program Monitoring and Evaluation Framework	80
TOTAL	4,167

COMPONENTS	Estimated Cost (in thousands US\$)				
	2014	2015	2016	2017	TOTAL
Component 1: Organize and Consult					
Budget 1a: Summary of National Readiness Management Arrangements Activities and Budget	367	171	158	148	844
Budget 1a: Summary of National Readiness Management Arrangements Activities and Budget	125	55	50	40	270
Budget 1c: Summary of Consultation and Participation Activities and Budget	80	40	25	10	155
Component 1 Summary	572	266	233	198	1269
Component 2: Prepare the REDD+ Strategy					
Budget 2a: Summary of Assessment of Land Use, Land Use Change Drivers, Forest Law, Policy and Governance Budget	70	50	40	40	200
Budget 2b: Summary of REDD+ Budget	440	310	270	165	1185
Budget 2c: Summary of REDD+ Implementation Framework Budget	90	155	65	40	350
Budget 2d: Summary of Social and Environmental Impacts during Readiness Preparation and REDD+ Implementation Budget	130	20	0	0	150
Component 2 Summary	730	535	375	245	1885
Component 3: Develop a National Forest Reference Emission Level and/or Forest Reference Level					
Budget 3: Summary of Reference Level Budget		200	70	40	310
Component 3 Summary	0	200	70	40	310
Component 4: Design Systems for National Forest Monitoring and Information on Safeguards					
Budget 4a: Summary of Monitoring Budget	42	116	120	55	333
Budget 4b: Summary of Non-Carbon Monitoring Budget	145	65	40	40	290
Component 4 Summary	187	181	160	95	623
Component 6: Design a Program Monitoring and Evaluation Framework					
Budget 6: Summary of Program M&E Budget					
Component 6 Summary					
GRAND TOTAL	1489	1182	838	578	4087

Component 6: Design a Program Monitoring and Evaluation Framework

A Monitoring and Evaluation Framework (**Table 1**) is essential to the successful implementation of the RPP. The M&E Framework provides a tool to evaluate the successes and setbacks of your project. It is proposed that the M&E of the RPP implementation will be the responsibility of a working group of the REDD+ Steering Committee with support from the TEG. Monitoring of the activities under the RPP will be continuous and involve site visits, periodic interviews, surveys where necessary and formal bi-annual reports to the NCCC. Evaluation of the project will occur on a yearly basis by the M&E working group (MEWG) based on the following criteria (Flinders University 2010):

- Process Evaluations - Assessment of the processes involved in organizing and/or implementing the project. The focus here is on evaluating organizational and project capabilities rather than results.
- Impact Evaluations - Assessment of short term objectives which suggest that your larger goals are being achieved. Impact evaluations are much easier to measure because they consider benefits in terms of changes in beliefs and attitudes, skills, behavior and/or policies, structures and systems.
- Outcome Evaluations - Assessment of how effective you have been in meeting big picture goals.

Proposed Monitoring and Evaluation Working Group

A working group on monitoring and evaluation (WG-ME) will be selected from the REDD+ Steering Committee and work in collaboration with the R+CU. This group will be composed of a minimum of 5 persons in composition and not more than 10 persons. They will be supported by the TEG which possesses the relevant technical expertise. Where the product or any activity under the product is not met within the proposed timeline of the M&E framework, the reasons for this will be summarized in a reports to the R+CU. Any progress made under these activities or the full achievement of the product along with accompanying expenditures and collaborations (financial, technical or otherwise) shall be noted in the report.

The mandate of the WG-ME is as follows:

The WG-ME will ensure that all the proposed activities within the RPP are being carried out in a timely manner and the outcomes are being met. This will be achieved by:

1. making recommendations for setting criteria for the type and format of data necessary to monitor activities, this should at minimum reflect quality controls for data collection and generation at the regional and international levels
2. making recommendations for the establishment of a national monitoring and evaluation agency responsible for the auditing projects to ensure accurate representation of carbon inventory and compliance with commitments to reduce emissions from deforestation and forest degradation (particularly in the long-term).
3. facilitating the process of designing a national monitoring plan that details a schedule for monitoring, the project specific modalities for monitoring, and procedures for recourse in instances of non-compliance

ensuring that the summation of all REDD activities contribute to overall goals of the REDD+ Readiness plan at national level. Reports will be produced on a bi-annual basis and presented to the REDD+ Steering Committee for comments, recommendations and further direction. The form of the report shall be determined by the TEG in collaboration with the REDD focal point/project manager and must report on the progress of the RPP implementation. Provisions should be made by the WG on monitoring and evaluation for a consultant to make a full review of the project at the end of the three years to determine

the success of the program in meeting the goal of national REDD readiness. Perhaps a regional consultant could be hired to do this, since the objective is a regional as well as a national one.

Table 15: Monitoring and Evaluation Framework for REDD+ Readiness Activities

Component	Sub-Component	Outcome	Outcome indicator	Timeframe				Responsible Organization
				2014	2015	2016	2017	
Component 1: Organize and Consult	1a. National Readiness Management Arrangements	Formalization of NCCC	NCCC has the capacity to oversee REDD+ activities	x	x			<ul style="list-style-type: none"> • NCCO • MFFSD
			Functional NCCC with regular meetings.	x	x	x	x	
		Engagement of Key Stakeholders	Planning Workshops with key government ministries/agencies have been held.	x	x	x	x	<ul style="list-style-type: none"> • REDD+ Steering Committee • Social Specialist •
			Planning Workshops with Private Sector and Civil Society have been held.	x	x	x	x	
			IP institutions have the capacity to engage in REDD+.	x	x	x	x	
		Project Oversight and Guidance	Established and Operational REDD+ Steering Committee.	x	x	x	x	<ul style="list-style-type: none"> • NCCO • NCCC • MFFSD • FD
			Formalized and Operational TEG	x	x	x	x	
			All members of TEG and REDD+ SC have the capacity to advise the R+CU in the implementation of REDD+ Readiness activities.	x	x	x	x	
		REDD+ Coordination Unit is established within the Forest Department	R+CU is fully staffed	x	x	x	x	<ul style="list-style-type: none"> • MFFSD
			R+CU has reliable transportation within the unit	x	x	x	x	
			R+CU has an established office with adequate equipment.	x	x			
			R+CU has regular communications with the NCCC, REDD+ SC and TEG	x	x	x	x	
		1b Information Sharing and Early Dialogue	Development, consultation and planning of REDD+	REDD+ Communications Strategy is published	x			

Component 2: Prepare the REDD-plus Strategy	with Key Stakeholder Groups	Communication Strategy	Gender Study and Plan on enhancing women's participation in forest management is carried out	x				Communication Office
			Workshops, meetings and outreach are held	x	x	x	x	
		Implementation of the REDD+ Communication Strategy	Activities outlined in the Communications Strategy are implemented.	x	x	x	x	<ul style="list-style-type: none"> • R+CU • MFFSD Communications Officer • TEG Communication specialist
	1c. Consultation and Participation Process	Prepare a national REDD+ Consultation & Participation Plan	A REDD+ Consultation and Participation plan is completed.	x				<ul style="list-style-type: none"> • R+CU
		Implement a national REDD+ Consultation Plan	Belize has a REDD+ strategy that reflects the inputs of all stakeholders.	x	x			<ul style="list-style-type: none"> • Independent Consultant?
			Stakeholders have the capacity to make meaningful contributions to a REDD+ strategy.	x	x	x		<ul style="list-style-type: none"> • REDD+ SC • TEG
		Feedback and Reporting	Stakeholders, implementing c=bodies and the general public are fully aware and informed on REDD+ activities.	x	x	x	x	<ul style="list-style-type: none"> • R+CU
	2a. Assessment of Land Use, Land Use Change Drivers, Forest Law, Policy and Governance	Support for dialogue on governance of forests with TAA, NAVCO and DAVCO	IPs and NAVCO/DAVCO are equipped to make informed decisions on REDD+	x	x	x	x	<ul style="list-style-type: none"> • FD • TAA • DAVCO/NAVCO
			IPs and NAVCO/DAVCO are accurately represented in decision making processes for REDD+	x	x	x	x	<ul style="list-style-type: none"> • Relevant Environmental/Cultural NGOs

	Complete drivers of deforestation and forest degradation analysis	Drivers of degradation are identified and prioritized.	x				<ul style="list-style-type: none"> • ERI • REDD Steering Committee\ • TEG
		Strategic actions are implemented to address drivers of deforestation and degradation	x	x	x	x	
2b. REDD-plus Strategy Options	Sustainability and integration with other sector policies	Improved collaboration, synergy and planning with identified sector policies and strategies		x			<ul style="list-style-type: none"> • MFFSD • NCCO • MNRA • REDD+SC
		In depth analysis of synergies and/or conflicts among the various relevant sector policies and strategies is carried out.	x				
	Develop Implementation Plan for National Land Use Policy (NLUP) and National Integrated Planning Framework for Land Resource Development(NIPFLRD)	Implementation plan is finalized and endorsed by cabinet	x				<ul style="list-style-type: none"> • MFFSD • MNRA • LIC • Lands Department
		Funding is in hand to implement NLUP and NIPFLRD		x			
		Prioritized actions of the plan are implemented	x	x	x	x	
	Formal planning and collaboration MNRA/ MFFSD	Current and Forecasted demand for land for the agricultural sector is modeled and mapped	x				<ul style="list-style-type: none"> • MNRA • Dept. of Agriculture • MFFSD • NCCO
		Government implements sustainable agricultural practices and climate smart agricultural systems	x	x	x	x	
	Strengthen Forest Policy and Legislation to reduce degradation drivers	Analysis of impact of proposed "Wood tax" on market value of lumber and competition with imported lumber is carried out			X		<ul style="list-style-type: none"> • FD • Independent consultant • Ministry of Finance • Timber concessionaires
Salvage logging requirements are update				x		<ul style="list-style-type: none"> • FD 	

		Institutional Strengthening of REDD+ implementation bodies for Pest Management and Control	x	x	x	X	<ul style="list-style-type: none"> MFFSD ERI Environmental NGOs
		Wildland Fire Management Strategy is implemented and integrated across sectors	x	x	x	x	<ul style="list-style-type: none"> FD MFFSD
		A plan for assessing domestic leakage of greenhouse gas benefits/risks is carried out.		x			<ul style="list-style-type: none"> Independent Consultant R+CU
2c. REDD-plus Implementation Framework	Examine Feasibility of Proposed Implementation Framework and identify options for improvement	Established benefit Sharing Mechanism that represents government and stakeholder interest		x			<ul style="list-style-type: none"> MFFSD FD REDD+ Steering Committee Ministry of Finance
		Cost vs benefits of Nested & Jurisdictional REDD+ is realized		x			
		Options for fiscal management of REDD+ are identified		x			
	Policy and Legislation to Support Mainstreaming of Climate Change and REDD+ into national planning processes	National Low Carbon Development Strategy is finalized and endorsed by cabinet		x			<ul style="list-style-type: none"> NCCO FD NCCC TEG MFFSD
		REDD+ relevant activities from the National Climate Change Policy and Strategy are being implemented	x	x	x	x	
		National REDD+ Policy if finalized and passed (legalized?) by cabinet	x				
		Legislation that defines the rights of carbon is finalized and passed in law		x	x		
	Support the REDD+ Implementation Framework	Capacity Building strategy is developed and implemented	x	x	x	x	<ul style="list-style-type: none"> FD NCCO MFFSD
		Partner and Government Institutions have the capacity to carry out the REDD+ Implementation Framework	x	x	x	x	

	2d. Social and Environmental Impacts during Readiness Preparation and REDD-plus Implementation	SESA Summary Report	Environmental and Social Risk and potential impacts are identified at a national scale	x				<ul style="list-style-type: none"> • FD • Identified Social Expert • REDD+ Steering Committee
			Necessary institutional and legal measures needed to address risks are identified	x				
		Prepare ESMF to examine the issues and impacts associated with projects, activities, or policies/regulations.	An environmental Management Framework is finalized	x				<ul style="list-style-type: none"> • FD • Steering Committee • Environmental /Cultural Partner NGO • ERI/Academia
			Social Safeguards mechanism is finalized	x				
		Stakeholder Engagement	meetings and workshops are held with Identified stakeholders	x	x	x	x	
		Capacity Building	Local communities and Indigenous peoples are well informed about REDD+ and can participate in the REDD+ process	x				
Component 3: Develop a National Forest Reference Emission Level and/or a Forest Reference Level	National Forest Reference Emission Level	Reference scenario model in readiness framework	forest cover task force is created		X			<ul style="list-style-type: none"> • R+CU • TEG • NCCO
			Integration of MRV data and result into reference scenario modeling		X	x		
	Reference models	Adoption of mapping- and validation methodology ; Hardware; Forest+land cover mapping; Validation, publication; Reforestation strategy			X			<ul style="list-style-type: none"> • R+CU • TEG • NCCO
			National registry for carbon project is established; Carbon stock verification on areas outside		x	x	x	

		of reserves							
Component 4: Design Systems for National Forest Monitoring and Information on Safeguards	4a. National Forest Monitoring System	National Forest Information System (NFIS)	Standards have been develop for NFIS		X			<ul style="list-style-type: none"> • FD • R+CU • NCCO • CBOS • PA Managers • TEG • REDD+ SC • ERI 	
			Indicators and monitoring methodology for reporting to CBD and REDD are selected	X	X				
			REDD Coordination Unit and Relevant stakeholders are trained in software		X				
			existing relevant data have been inputted into the system		x				
		Measurement Verification and Reporting (MRV)	PSP system has been evaluated/expanded, existing network is re-measured		X	X	X	<ul style="list-style-type: none"> • TEG • FD • R+CU • ERI 	
			Train FD personnel, CBOs, NGOs in MRV methodology		X	X	X		
		4b. Designing an Information System for Multiple benefits , other impacts, Governance and safeguards	Development of Non-Carbon Monitoring System	Belize has the capacity to initiate a multiple benefits Monitoring system	X	X	X	X	<ul style="list-style-type: none"> • R+CU • TEG • ERI • PA Managers • CBOs • REDD+ SC
				Elements of the monitoring system has been design including key social and environmental safeguards and their indicators	X				
				Monitoring and Assessment plan has been developed.	X	X			
				consultations have been held	X				

		Implementation of Non-Carbon Monitoring System	Data has been collected and analyzed	X	X	X	X	<ul style="list-style-type: none"> • FD • TEG • R+CU
			Reports on the monitoring system are made available.	X	X	X	X	

Budget 6: Summary of Program M&E Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands)				
		2014	2015	2016	2017	Total
Design a Monitoring and Evaluation Plan	Establishment of the M&E working group	10	0	0	0	10
	Workshops and Meetings	10	5	5	5	25
Monitoring of REDD projects countrywide	Training of relevant personnel	10	5	2.5	2.5	20
	Re-assessment of Monitoring and Evaluation Plan	0	0	5	0	5
	Quarterly visits to implementation sites for monitoring of progress	5	5	5	5	20
Total		35	15	17.5	12.5	80
Government						
FCPF		35	15	17.5	12.5	80
UN-REDD Programme (if applicable)						
Other Development Partner 1 (name)						
Other Development Partner 2 (name)						
Other Development Partner 3 (name)						

Annex 1a: National Readiness Management Arrangements



FOREST DEPARTMENT

Ministry of Natural Resources and the Environment
Forest Drive, Belmopan, Belize
Tel: (501) 802-1524 • Fax: (501) 822-1523
Email: fdsecretary@mnrei.gov.bz



Belmopan, October 30, 2013

RE: National REDD+ Technical Expert Group Working Session

Dear Sir/Madam:

This letter serves as an official invitation to a special Reducing Emissions from Deforestation and Forest Degradation (REDD+) working session on **November 12, 2013** at The Belmopan Convention Hotel from 8:30 am to 2:00pm.

The objective of this meeting will be to discuss and evaluate the present REDD+ Technical Expert Group structure and its Terms of Reference (ToR). This session will be facilitated by The Nature Conservancy. Please find the agenda attached. The Belize REDD+ Technical Expert Group is a crucial working group that serves to guide the process of implementation of REDD+ in Belize. It is important that we are able to finalize the TEG ToR in time for our final presentation of the Belize Readiness Preparation Proposal in December 2013.

The Chief Forest Officer cordially invites you to be a part of this most important undertaking.

Please confirm which individual from your institution will be able to contribute meaningfully to this forum by the **6th of November 2013**.

Sincerely yours,

Wilbur Sabido
Chief Forest Officer
Forest Department
Ministry of Forest Fisheries and Sustainable Development

Overseeing the sustainable management of Belize's forest resources

Annex 1b: Information Sharing and Early Dialogue with Key Stakeholder Groups

Partners/Key Actors Identified

Type of Organization	Description
Government Ministries, Departments and Agencies	
Ministry of Forestry, Fisheries & Sustainable Development	The Ministry of Forestry, Fisheries and Sustainable Development is a new ministry and is responsible for Climate Change, Coastal Zone Management Authority, Environment, Fisheries, Forestry, Protected Areas and Reserves and the Protected Areas Conservation Trust.
Ministry of Natural Resources and Agriculture	The Ministry of Natural Resources and the Environment is a key agency in the public administration structure of Belize, and is responsible for the management of the land and solid waste management along with the agriculture sector. The agriculture sector is firmly committed to sustainable rural development and sees the agricultural sector as providing the economic base for enhanced economic growth of the country (in particular the rural areas) and as a mechanism to addressing poverty alleviation.
Ministry of Energy, Science & Technology and Public Utilities	This is a new ministry and is responsible for Geology and Petroleum, Public Utilities (Water, Electricity, Telephone, Post Office).
National Climate Change Secretariat	
National Protected Areas Secretariat	Streamline the coordination and implementation of the National Protected Areas Policy and System Plan.
Department of the Environment	The Department of the Environment, within the Ministry of Forestry, Fisheries and Sustainable Development is responsible for fostering the prudent use of and proper management of the natural resources of Belize. The preservation, protection and improvement of the environment and the control of pollution, thus guaranteeing a better quality of life for present and future generations.
Geology and Petroleum Department	To accelerate the development of Belize's non-renewable, mineral resources through the creation of vibrant petroleum and other minerals sectors with the assistance of private, national and international investors, cognizant of environmental costs, thereby improving the welfare of Belizeans into the 21st century. This department falls under the authority of the Ministry of Energy, Science & Technology & Public Utilities.

Lands and Survey Department	Land and Surveys Department is committed to efficiently manage the processes of determining, recording and disseminating all information about land, including ownership, value, its coordinates, its highest and best use for the socio-economic benefit and sustainable development of Belize. This department is under the Ministry of Natural Resources & Agriculture.
Forest Department	The Forest Department is a public oriented entity that fosters Belize's economic and human development by effectively enforcing relevant policies and regulations for the sustainable management of its natural resources through strategic alliances and efficient coordination with relevant stakeholders. This department is under the Ministry of Forestry, Fisheries & Sustainable Development
Department of Agriculture	The Department of Agriculture's primary role is to develop and transfer environmentally friendly technologies that will make farming more sustainable and farmers more competitive.
CZMA&I - Coastal Zone Management Authority and Institute	The Coastal Zone Management Institute carries out the technical functions of coastal management in coordination with the various agencies involved. The Institute's main functions are to conduct marine research, maintain a data centre, provide information as required by the Authority, organize training courses, support other agencies involved in CZM, maintain coastal monitoring programmes, and to assist with preparation of a national CZM plan. The Authority is to formulate the policies and regulations.
Protected Areas Conservation Trust	PACT is a strategic partner in the funding, management and sustainable development of Belize's natural and cultural resources for the benefit of Belizeans and the global community.
BTB - Belize Tourism Board	The BTB is a strategic partner in marketing the Belize Tourism Product, developing tourism initiatives and programs, and implementing tourism policies, to address the changing needs of visitors and stakeholders.
Institute of Archaeology	The Institute of Archaeology is dedicated to the research, protection, preservation, and sustainable management of Belize's cultural and archaeological resources.
Non-government Organization	
APAMO - Association for Protected Areas Management Organization	APAMO is an association of non-governmental protected areas management organizations that advocates for the sustainability and improved management of Belize's protected areas system. APAMO is currently comprised of 14 founding members. These 14 non-governmental and community-based membership agencies are responsible for the co-management of 28 protected areas representing approximately 51% of Belize's land and sea currently under protection, exclusive of forest reserves, and 65% of all co-managed protected areas.
BAS - Belize Audubon Society	The Belize Audubon Society is a leader in conservation, not only protecting wildlife and habitat, but also by involving local communities in management to ensure sustainable use of natural resources, and advocating for maintaining the integrity of the environment in a growing nation. BAS is committed to creating a balance between people and the environment.

<p>BFREE - Belize Foundation for Research and Environmental Education</p>	<p>BFREE manages a private research and educational facility, located on 1,153 acres of tropical rainforest nestled in the foothills of the Maya Mountains in southern Belize along the crystal clear Bladen River. Four protected areas adjoin the BFREE reserve, including the Bladen Nature Reserve, Cockscomb Basin Jaguar Reserve, Deep River Forest Reserve, and Maya Mountain Forest Reserve.</p>
<p>BTIA - Belize Tourism Industry Association</p>	<p>BTIA is an umbrella organization for the tourism industry's private sector. BTIA's main strategic objective is to advocate on behalf of its members for the benefit of the tourism industry by influencing the outcomes of public policy and resource allocation decisions by the government, specifically for tourism.</p>
<p>CBS - Community Baboon Sanctuary</p>	<p>The Community Baboon Sanctuary is a pioneering project in voluntary grassroots conservation. The goal of the CBS is to sustain the habitat of the Black Howler Monkey (called 'baboon' in the local Creole dialect) while promoting the economic development of the participating communities. The result has been an innovative project in sustainable ecotourism that protects the habitat for the endangered Black Howler Monkey and other species while offering a unique opportunity for visitors to experience the rainforest and witness Black Howler Monkey in the wild.</p>
<p>FAMRACC - Forest and Marine Reserves Association of Caye Caulker</p>	<p>The Caye Caulker Forest and Marine Reserves were declared in May of 1998. The Caye Caulker community formed the Forest and Marine Reserve Association of Caye Caulker (FAMRACC) to co-manage the new Reserves along with the Government of Belize. FAMRACC is composed of representatives from all the organizations on the Caye, including the Village Council, Caye Caulker BTIA, Tour Guide Association, Water Taxi Association, Northern Fishermen Cooperative, churches and schools.</p>
<p>FCD - Friends for Conservation and Development</p>	<p>FCD is a membership non-profit, non-governmental organization based in Belize, Central America whose primary goal is to motivate the public to protect the environment through conservation awareness while enhancing the development of the human resource. Since its establishment in 1999, FCD has made significant achievements in environmental awareness, protected areas co-management, community support programs, sustainable livelihoods, monitoring, research, policy recommendation, and bi-national cooperation aimed at the protection of the Chiquibul National Park and the encompassing Maya Mountain a Key Biodiversity Area.</p>
<p>FOSC - Friends of Swallow Caye</p>	<p>Friends of Swallow Caye a community based non-profit conservation association focused on the protection of manatees in the Swallow Caye area. The group was organized in 1996 to promote the designation of this area as a Wildlife Sanctuary.</p>
<p>Monkey Bay Wildlife Sanctuary</p>	<p>Monkey Bay Wildlife Sanctuary is an environmental education center that offers experiential learning programs and training opportunities while serving as a model of conservation land Stewardship.</p>

PfB - Programme for Belize	The Programme for Belize is a Belizean, non-profit organization, established in 1988, to promote the conservation of the natural heritage of Belize and to promote wise use of its natural resources. The Rio Bravo Conservation and Management Area is its flagship project where Programme for Belize demonstrates the practical application of its principles.
SATIIM - The Sarstoon Temash Institute for Indigenous Management	The Sarstoon Temash Institute for Indigenous Management is a community based indigenous environmental organization working in the far south of Belize, in a region in the Toledo District that lies between the Sarstoon and Temash Rivers. SATIIM co-manages, with the Forest Department the 41,898 acre Sarstoon Temash National Park.
SEA - Southern Environmental Association	SEA's mission as a non-governmental organization is to continuously work towards improving stewardship and the environmental integrity of key marine areas in southern Belize through effective, collaborative protected areas management, community involvement, and strategic partnerships for the benefit of all stakeholders.
The International Tropical Conservation Foundation	The International Tropical Conservation Foundation is a small non-profit organization having practical conservation of tropical nature in the field as its objective. ITCF-Netherlands was established in 1990 and It manages the Shipstern Nature Reserve in Belize.
STACA - Steadfast Tourism and Conservation Association	Steadfast Tourism and Conservation Association was formed by concerned villagers of Steadfast Village in Southern Belize for the management and protection of the Mullins River Basin Area, to foster the development of Steadfast Village through ecologically sound tourism while promoting conservation consciousness.
TIDE - Toledo Institute for Development and Environment	TIDE is the co-manager of the Port Honduras Marine Reserve and the Payne's Creek National Park and is an effective leader in ecosystems management and biodiversity conservation that fosters community development and empowers communities to sustainably manage and use the natural resources in the Toledo District of Belize.
Ya'axché Conservation Trust	The Ya'axché Conservation Trust is a community-oriented organization which advances integrated landscape management for equitable development in southern Belize through sustainable land use management, strategic advocacy and awareness, and by supporting socially innovative and economically viable enterprises.
Wildtracks	Wildtracks is a multi-faceted, non-profit conservation organisation based in. Wildtracks programs are wide ranging and focus heavily on engaging interest and participation in conservation activities; both at a local level, and by working with NGOs and government agencies.
BELPO - Belize Institute for Environmental Law and Policy	The Belize Institute of Environmental Law and Policy was incorporated in 1995 by professionals in the fields of law, education, science, natural resource management, and grassroots Belizeans who organized themselves to address the serious and growing environmental problems faced by Belize, to ensure better management of the environment and natural resources, and to safeguard public health now and for future generations.
Communities (BCLPA, Rax Mu Q'Iche, Q'Iche Ha)	

NAVCO - National Association of Village Councils and District Association of Village Councils	The work of NAVCO is guided by its Strategic Plan 2007 to 2010, approved by the National Executive in 2007. Program, project, and operational development are aligned with the Strategic Plan and the obtainable resources to strengthen local governance to enhance national governance.
BENIC - Belize National Indigenous Council	BENIC is the umbrella organization of indigenous organizations in Belize. It consists of an alliance of agencies working for the advancement and inclusion of indigenous people in development. BENIC is a membership organization which provides opportunities for training, information gathering and advocacy on indigenous issues.
TAA - Toledo Alcaldes Association	
TMCC - Toledo Mayan Cultural Council	The Toledo Mayan Cultural Council community based organization which was established in 1982, as part of the Toledo Indian Movement, which had the purpose of uniting the Mayas. This came about when the United Nations recognized the indigenous Mayan Rights (specifically the land rights) which addresses various issues. The organization started with twenty seven (27) members and has grown over the past decades.
Private sector – all LTFLs, private lands group (John Carr and Private Land Owners Assn)	
BAPPA - Belize Association of Private Protected Areas	BAPPA has a strong network, representing its members by liaising with the Forest Department and the Fisheries Department of Belize. As a member of the National Protected Areas Commission, BAPPA plays a leading role in representing Private Protected Areas (PPA's). It is a member of the Regional Network of PPA's, and helped draft the Regional Policy and Strategy for PPA's.
Yalbac Ranch and Cattle Cooperation	Yalbac Ranch Lands are situated with the Guatemala Border on its western boundary, the Gallon Jug Lands on its northern boundary, Programme For Belize Lands on its eastern boundary and Labouring Creek on its southern boundary.
Gallon Jug Estate	The Gallon Jug area has been known throughout its history as an area rich in wildlife and tropical hardwoods. Their goal is to maintain the integrity of the forest and the inhabiting wildlife through various agricultural and forestry based businesses.
Balam Jungle Estates	Balam Jungle Estates is a large privately owned land mass within the South-East Corozal District. This area is a wilderness rich in wildlife and varied landscapes.
Bull Run Overseas Ltd	This company is the owner of 7,200 acres in Belize's magnificent Mountain Pine Ridge area which includes an exclusive, small 12 unit lodge, the Hidden Valley Inn.
BNE - Belize Natural Energy	To positively impact the Belizean people by efficiently finding, producing and marketing oil and gas in a healthy, safe, environmentally and socially conscious manner that fosters teamwork, creativity and professionalism. BNE is currently extracting and exporting crude oil in the Spanish Lookout area of Belize.
Academia	

ERI-UB Environmental Research Institute, University of Belize, UB- NRM	As the premiere environmental research institute in Belize and highly respected in the region, ERI provides sound science and creates a culture of evidence-based decision-making in the public and private sector in areas relevant to national development.
Galen University	The mission of Galen University is to provide excellence in undergraduate, graduate, and professional education to prepare students to achieve their dreams and goals. Galen University is committed to providing an exciting and stimulating learning environment, innovative and supportive teaching, scholarship, and active service to the community – with a unique focus on “sustainable development” throughout our courses, programs, and service.

Annex 1c: Consultation and Participation Process

Programa REDD/CCAD-GIZ, Reducción de Emisiones por la Deforestación y Degradación de Bosques

PN 2008.2211.4-001.00

Consultor / Consultora: **THE NATURE CONSERVANCY (TNC)**

Para: **DESARROLLO DEL PLAN DE CONSULTA PARA LA FASE DE
PREPARACION DEL PROCESO REDD (READINESS PHASE) DE BELICE**

Contrato No.:

1. Información corta del Proyecto / Programa

La Cooperación Alemana está presente en Centro América y en la República Dominicana con diferentes programas nacionales, regionales y proyectos sectoriales, acompañando procesos relacionados y participando activamente en la discusión sobre el tema de Cambio Climático con sus diferentes socios y contrapartes. Bajo este contexto, se ha identificado la necesidad de complementar el trabajo actual en la región, en cooperación con los programas y proyectos ya existentes, acentuando el tema de preparación de los países centroamericanos para que los mismos puedan participar activamente en la discusión, desarrollo e implementación del régimen REDD (Reducción de Emisiones por Deforestación y Degradación). En diferentes instancias se ha discutido sobre posibles líneas de acción, enfoques metodológicos y posibles socios para crear sinergias en la región y maximizar los procesos ya existentes. Hasta el momento Alemania apoya a Honduras y Nicaragua a través de sus Programas Ambientales de Cooperación Técnica bilaterales en el desarrollo de su estrategia REDD. Al mismo tiempo, Alemania asesoró la CCAD (Comisión Centroamericana de Ambiente y Desarrollo) a través de estos Programas y el Proyecto PUEMBO en el diálogo regional sobre bosques que culminó en 2008 en la aprobación del Programa Estratégico Regional sobre el manejo de Ecosistemas Forestales (PERFOR). En base a esto, se ha recibido un mandato de trabajo del Ministerio Alemán Federal de Cooperación Económica y Desarrollo (BMZ), para desarrollar e implementar un proyecto regional para fomentar y fortalecer la cooperación en la región en el tema de REDD.

En el marco de la discusión internacional sobre Emisiones Evitadas en Deforestación y Degradación (conocido como REDD) los países Centroamericanos han mostrado su voluntad de prepararse estructuralmente para un régimen internacional en REDD en varias estrategias regionales.

La duración del proyecto abarca seis años (desde octubre del 2009 hasta octubre del 2016), con la contribución alemana alcanzando hasta los 12.000.000 de euros. La fase actual abarca tres años y seis meses (desde octubre del 2009 hasta octubre del 2013). La contribución alemana en esta fase será de hasta 6.000.000 de euros.

2. Antecedentes

Belice se encuentra desarrollando la fase de formulación de preparación de la propuesta "Readiness" (R-PP) con el apoyo financiero del Programa REDD-CCAD/GIZ. En este proceso, el país ha solicitado ser miembro del Fondo Cooperativo para el Carbono de los Bosques (FCPF) y tiene previsto presentar posteriormente la propuesta de R-PP al Comité de Participantes del FCPF, para acceder a recursos adicionales para las Fases de Preparación e Implementación.

Uno de los aspectos que están pendientes es el de socializar el proceso nacional REDD y fomentar la participación con los actores relevantes para que se genere un diálogo constructivo y se genere una retroalimentación del contenido de la propuesta. Para ello, se ha considerado conveniente desarrollar una consultoría para diseñar un plan de consulta y diálogo temprano en el marco de preparación de la propuesta Readiness.

3. Objetivo de la Consultoría

La consultoría tiene como objetivo desarrollar las actividades de información y diseminación, reuniones de dialogo y diseñar el proceso de consulta con los diferentes grupos de actores claves que será ejecutado durante la fase de preparación de la estrategia REDD+ de Belice.

Para ello la empresa consultora:

1. Actuará como punto coordinador de las actividades de reuniones con los diferentes grupos de actores;
2. Diseñará el plan de consulta con estrecha referencia y coordinación a las actividades iniciales de acercamiento con los grupos de actores.

4. Actividades Principales

Para cumplir los objetivos de la consultoría, el consultor deberá realizar las siguientes tareas:

Tarea 1: Diseñar e implementar talleres o actividades de información para la mayor comprensión del tema REDD+ y para que los diversos actores conozcan y discutan sus respectivos roles dentro del marco de preparación de la estrategia REDD+ e identifiquen los mecanismos de consulta para asegurar el éxito de los mecanismos REDD+.

Tarea 2: Coordinar y dar seguimiento cercano a las actividades, reuniones y talleres con grupos de actores y documentar los aportes, cuestiones e inquietudes expuestas por parte de los grupos de actores para formar las bases que coadyuve en el aseguramiento de un proceso de participación y de gestión adecuada por parte de los grupos de actores claves en el diseño de la estrategia REDD+ nacional.

Tarea 3: Actualizar el mapa de grupo de actores: (i) aquellos grupos de actores que están afectados por el programa (positivamente y negativamente); y (ii) aquellos grupos de actores que pueden afectar el resultado del programa (apoyo u oposición al programa).

Tarea 4: Formular un plan de consulta y el diseño de la estrategia metodológica para aumentar el capital social de acuerdo con la red de relaciones institucionales vinculadas a la estrategia REDD+ y ponerlo en operación. Específicamente, el Plan de Consulta y Participación con los actores relevantes, para ser ejecutado en la fase de “Readiness”, tiene que incorporar los siguientes elementos: (i) mapa de actores, (ii) las actividades de información y divulgación, (iii) la transparencia en el proceso, (iv) los foros apropiados y los métodos de consulta y participación, (v) la forma de documentación, (vi) el registro de las decisiones; (vii) el proceso de retroalimentación, y (viii) los mecanismos de resolución de preocupaciones.

Tarea 5: Validar el plan de consulta participativa que permita a los diversos actores interiorizar la responsabilidad social para la gestión adecuada del R-PP de REDD+.

Tarea 6: Apoyar en la capacitación del personal del “Technical Expert Group (TEG)” y Forest Department sobre el proceso de consulta y los diferentes grupos de actores y un protocolo de cómo llevar a cabo el mecanismo (os) que permiten contabilizar el aumento de capital social entre los diferentes actores vinculados al R-PP de REDD+.

Tarea 7: Contribuir y apoyar en el desarrollo del mecanismo que permita llevar a cabo un proceso transparente y acorde, para la selección de los representantes de los territorios indígenas y de la sociedad civil del TEG en REDD+.

Tarea 8: Desarrollar los términos de referencia (perfil, rol y mandato) y los protocolos de operación que le permitan al TEG en REDD+ llevar a cabo las actividades propias del mismo de forma coordinada y activa.

Tarea 9: Poner en operación y apoyar el TEG en REDD+ en el mantenimiento de un control físico y digital de la operación del mismo y el respectivo seguimiento coordinado de sus acuerdos con la Ministry of Forestry, Fisheries and Sustainable Development.

5. Productos a Entregar / Fechas / Forma de Pago

Producto	Detalle	Porcentaje	Fecha
1	Una guía metodologica de consultas a ser aplicado en los talleres, consultas y actividades de información y recolección de comentarios e insumos de los grupos de actores claves.	25%	15.06.13
2	Plan de consulta que incluya la participación amplia de los grupos de actores claves cn roles claros dentro de REDD+ y que incluya los aportes e insumos recogidos por parte de los actores en los talleres de información llevados a cabo previamente.	25%	30.08.13
3	Propuesta con recomendaciones al Ministerio	25%	15.09.13

	para que el TEG sea legalizado y puesto en operación; incluyendo términos de referencia sobre composición, perfil, ro y responsabilidades, según lo aprobado por el Forest Department.		
4	Propuesta con recomendaciones para un Manual de Procedimientos para el TEG según lo aprobado por el Forest Department.	25%	30.09.13

Para proceder al respectivo pago, todos los productos resultantes deberán contar con la previa revisión y aprobación por parte de Forest Department y de GIZ.

El/la consultor/a deberá entregar 2 ejemplares impresos originales, los cuales deben ser enviados vía Courier con atención a Guillermo Mayorga a la siguiente dirección: Blvd. Orden de Malta Edificio GIZ Urbanización Sta. Elena, Antiguo Cuscatlán, La Libertad. El Salvador Apto. Postal 755. Los gastos de envío de los informes será por cuenta de la empresa; también deberá entregar 2 copias en formato electrónico de todos los productos resultantes.

Estos documentos y medios magnéticos deben contener el nombre de la consultoría, nombre de autor, fecha y número de contrato y no deberá utilizar ningún logo de la GIZ.

6. Tiempo de la Consultoría

La presente consultoría tendrá una duración de 6 meses a partir de la firma del contrato. **Iniciando el 08.04.13 y finalizando el 08.10.13**

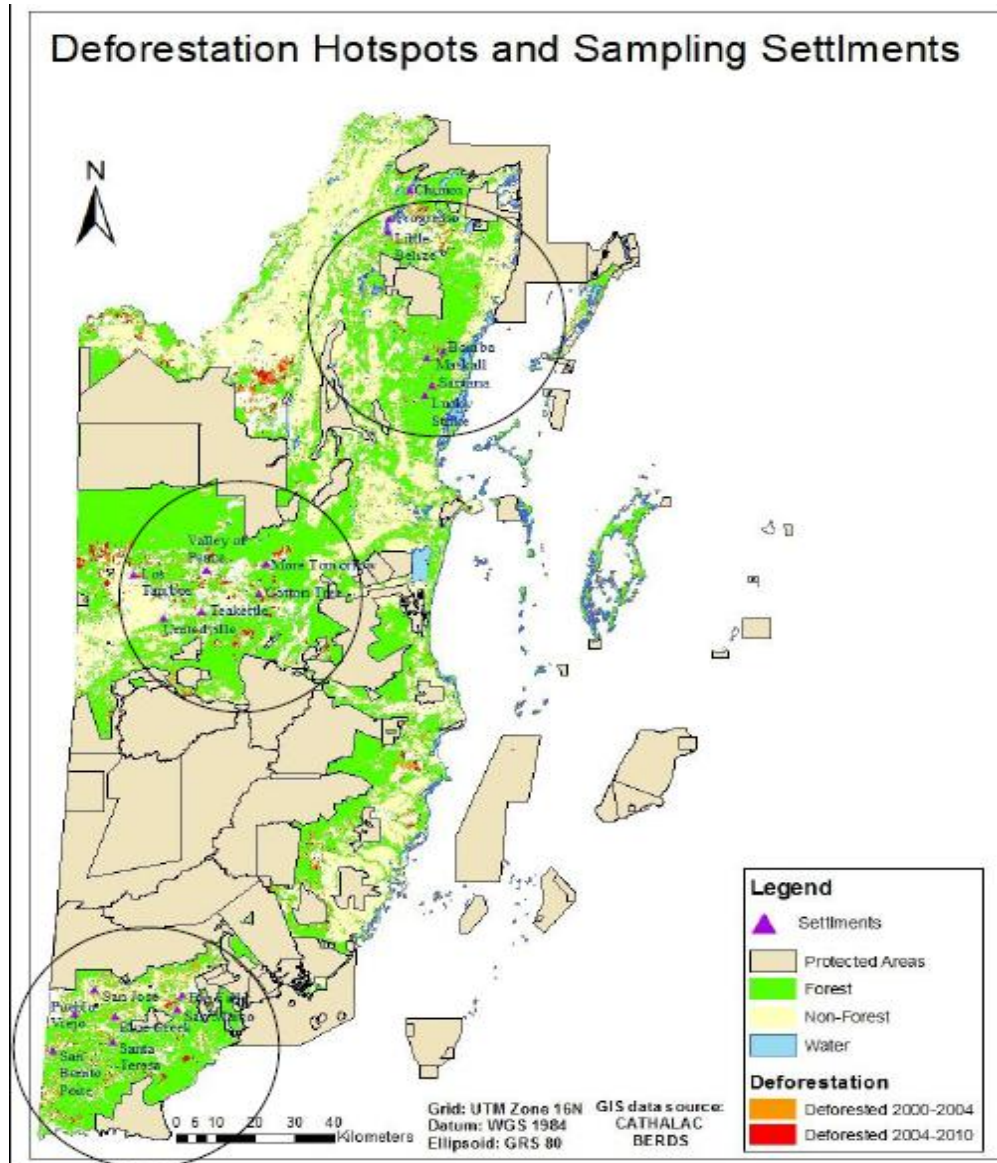
7. Cronograma de Actividades (como anexo de los TdR)

Un Cronograma de Actividades deberá adjuntarse a la propuesta presentada por el oferente.

8. Consideraciones Adicionales

1. La modalidad por la cual se realiza la contratación será como consultoría a corto plazo.
2. La alimentación y material de los participantes en las reuniones y talleres será cubierto por la empresa consultora, para lo cual se le estará entregando un monto global.
3. La GIZ se reserva al menos 5 días hábiles para la revisión y aprobación del informe final para poder realizar los pagos correspondientes.
4. Los informes impresos y factura correspondiente a cada pago deberá ser enviada vía Courier a Guillermo Mayorga a la siguiente dirección: Blvd. Orden de Malta Edificio GIZ Urbanización Sta. Elena, Antiguo Cuscatlán, La Libertad. El Salvador Apto. Postal 755. Los gastos de envío será por cuenta de la empresa consultora.
5. La empresa consultora deberá presentar listado de participantes, listado de entrega de materiales originales y copia de la convocatoria por cada taller o evento realizado.
6. La selección de participantes y la convocatoria estará a cargo del Forest Department.
7. La persona responsable por parte de GIZ para el seguimiento de la consultoría es Mayorga, Guillermo, teléfono: 2121-5173, correo: guillermo.mayorga@giz.de. La persona responsable por Forest Department en Tanya Santos sfm.fd@ffsd.gov.bz

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



Drivers of Deforestation and Degradation Ranking Guidelines (Adapted)

Very High-4 High-3 Medium-2 Low-1

Severity of Damage -- *What level of damage can reasonably be expected within 10 years under current circumstances (given the continuation of the existing situation)*

Very High	The driver is likely to <i>destroy or eliminate</i> the forest over some portion of its occurrence
High	The driver is likely to <i>seriously degrade</i> the forest over some portion of its occurrence
Medium	The driver is likely to <i>moderately degrade</i> forest over some portion of its occurrence
Low	The driver is likely to <i>only slightly impair</i> the forest over some portion of its occurrence

Scope of Damage – *What is the geographic scope of impact on the forest that can reasonably be expected within 10 years under current circumstances (given the continuation of the existing situation)*

Very High	The driver is likely to be <i>very widespread or pervasive in its scope</i> , and affect the forests <i>throughout its occurrence</i>
High	The driver is likely to be <i>widespread in its scope</i> , and affect the forests <i>throughout its occurrence</i>
Medium	The driver is likely to be <i>localized in its scope</i> , and affect the forests at <i>some of its occurrences</i> .
Low	The driver is likely to be <i>very localized in its scope</i> , and affect forests at a <i>limited portion of its occurrences</i> .

Source-of-Stress Ranking Guidelines

Contribution – *Expected contribution of the driver, acting alone, to the deforestation and degradation under current circumstances (i.e., given the continuation of the existing situation)*

Very High	The driver is a <i>very large</i> contributor to deforestation and degradation
High	The driver is a <i>large</i> contributor to deforestation and degradation
Medium	The driver is a <i>moderate</i> contributor to deforestation and degradation
Low	The driver is a <i>low</i> contributor to deforestation and degradation

Irreversibility – *Reversibility of the damage caused by the driver*

Very High	The driver produces damage that is not reversible, for all intents and purposes (e.g. forest converted to shopping center)
High	The driver produces damage that is reversible, but not practically affordable (e.g. forest to agriculture)
Medium	The driver produces damage that is reversible with a reasonable commitment of additional resources (e.g. reforestation or enrichment planting)
Low	The driver produces damage that is easily reversible at relatively low cost (e.g. leaving wamil to recover)

Annex 2b: REDD-plus Strategy Options

Please present the early ideas and/or draft input to ToR for work to be carried out. Please also present the strategy options themselves if they are available.

Annex 2c: REDD-plus Implementation Framework

Please present the early ideas or draft input to ToR for work to be carried out. If you decided to merge Components 2b and 2c, you may also wish to merge Annexes 2b and 2c.

Annex 2d: Social and Environmental Impact during Readiness Preparation and REDD-plus Implementation

Please present the early ideas or draft input to ToR for work to be carried out.

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

Biomass equations used in the study.

Life Form	Input	Species	Y = Biomass (kg unless otherwise stated)	Source	Input range	
Palms	H_s	<i>Chrysophylla stauracantha</i>	$Y = 0.182 + 0.498H_s + 0.049H_s^2$	‡	0.5-10.0 metres	
	H_s	<i>Attalea cohune</i>	$Y = 10.856 + 176.76H_s - 6.898H_s^2$	‡	0.5-15.7 metres	
	H_s	<i>Sabal mauritiiformis</i>	$Y = 24.559 + 4.921H_s + 1.017H_s^2$	‡	0.2-14.5 metres	
	H_s	<i>Euterpe precatória</i>	$Y = 6.666 + 12.826H_s^{0.5} \ln H_s$	‡	1.0-33.0 metres	
Lianas	DBH	Liana species	$Y = 10^{0.12+0.91 \log_{10}(\pi[DBH/2]^2)}$	†	1.0-12.0 cm	
Cecropia	DBH	<i>Cecropia</i> spp.	$Y = 12.764 + 0.2588DBH^{2.0515}$	§	10.0-40.0 cm	
Saplings	DBH	All	$Y = ((\exp(4.9375 + 1.0583 \ln(DBH^2)))1.14/10^6)10^3$	*	1.0-10.0 cm	
	DBH	All	$Y = \exp(\ln(42.69 - 12.8DBH + 1.242DBH^2))$	+	≥10 cm	
	DBH, ρ	All	$Y = \rho \times \exp(-1.499 + 2.148 \ln DBH + 0.207(\ln DBH^2 - 0.0281 \ln DBH^3))$	#	≥10 cm	
	Hardwood Trees	DBH, ρ , H_T	All	$Y = \exp(-2.409 + 0.9522 \ln DBH^2 H_T \rho)$	~	≥10 cm
			All	$Y = 0.0509 \times \rho DBH^2 H_T$	#	≥10 cm
	DBH, ρ	All	$Y \text{ (Mg)} = \frac{\rho \times \exp(-9.480 + 0.975 \ln DBH^2 H_s)}{1 - (0.723 CFI - 0.091)}$	¶	≥10 cm	

$$Y \text{ (Mg)} = \frac{\rho \times (0.981[\exp(-8.367 + 2.261 \ln DBH)] + 0.086)}{1 - (0.723 CFI - 0.091)}$$

H_s, CFI

 DBH, ρ, CFI All ≥ 10 cm

‡Brown *et al.* (2001); †Putz (1983); §Winrock International; *Hughes *et al.* (1999); +Brown (1997); #Chave *et al.* (2005); ~Brown *et al.* (1989); ¶Cho *et al.* in press.

The table below lists the total live AGB ≥ 1 cm in all 70 replicates according to three different methods, along with the overall grand mean of all replicates and all methods.

Replicate	Mg ha ⁻¹ A	Mg ha ⁻¹ B	Mg ha ⁻¹ C	Location
1	207.23	151.63	174.19	Cohune Ridge, Chiquibul National Park
2	197.76	155.66	178.67	Cohune Ridge, Chiquibul National Park
3	196.90	154.81	177.21	Cohune Ridge, Chiquibul National Park
4	190.30	154.13	175.13	Cohune Ridge, Chiquibul National Park
5	258.20	164.12	180.79	Cohune Ridge, Chiquibul National Park
6	287.29	251.31	198.32	Prasco Ha Creek, Columbia River Forest Reserve
7	306.37	268.43	211.30	Prasco Ha Creek, Columbia River Forest Reserve
8	221.94	151.05	164.34	Prasco Ha Creek, Columbia River Forest Reserve
9	291.09	260.27	213.86	Prasco Ha Creek, Columbia River Forest Reserve
10	297.94	263.20	219.49	Prasco Ha Creek, Columbia River Forest Reserve
11	210.01	143.45	157.22	Prasco Ha Creek, Columbia River Forest Reserve
12	265.75	224.34	189.37	Possomberry Creek, Columbia River Forest Reserve
13	273.88	229.51	190.83	Possomberry Creek, Columbia River Forest Reserve
14	188.48	115.43	129.44	Possomberry Creek, Columbia River Forest Reserve
15	188.07	159.59	172.54	Possomberry Creek, Columbia River Forest Reserve
16	188.64	159.54	175.03	Possomberry Creek, Columbia River Forest Reserve
17	166.40	120.17	119.66	Cohune Ridge, Chiquibul Forest Reserve
18	245.92	122.82	129.49	Cohune Ridge, Chiquibul Forest Reserve
19	172.83	139.82	168.49	Suky Camp Road, Eljio Panti National Park
20	199.13	116.54	141.38	No. 1 Line, Mountain Pine Ridge Forest Reserve
21	333.05	256.31	235.15	Freshwater Creek Forest Reserve
22	301.77	219.53	210.23	Freshwater Creek Forest Reserve

23	221.22	150.98	172.50	Las Cuevas, Chiquibul Forest Reserve
24	205.38	144.09	171.51	Las Cuevas, Chiquibul Forest Reserve
25	270.67	221.09	249.64	Las Cuevas, Chiquibul Forest Reserve
26	174.54	119.69	120.65	Las Cuevas, Chiquibul Forest Reserve
27	186.66	132.48	130.44	Las Cuevas, Chiquibul Forest Reserve
28	253.48	181.81	205.84	Las Cuevas, Chiquibul Forest Reserve
29	196.07	152.99	158.07	Las Cuevas, Chiquibul Forest Reserve
30	187.55	141.24	149.13	Las Cuevas, Chiquibul Forest Reserve
31	176.78	142.90	148.32	Las Cuevas, Chiquibul Forest Reserve
32	187.07	151.76	157.08	Las Cuevas, Chiquibul Forest Reserve
33	252.39	190.98	178.20	Grano de Oro, Chiquibul Forest Reserve
34	253.24	199.52	187.22	Grano de Oro, Chiquibul Forest Reserve
35	328.23	274.50	299.91	Grano de Oro, Chiquibul Forest Reserve
36	219.02	163.54	166.44	Grano de Oro, Chiquibul Forest Reserve
37	200.68	153.04	158.84	Grano de Oro, Chiquibul Forest Reserve
38	288.99	222.24	219.92	New Maria Camp, Chiquibul Forest Reserve
39	264.92	217.55	214.39	New Maria Camp, Chiquibul Forest Reserve
40	201.69	159.80	181.65	New Maria Camp, Chiquibul Forest Reserve
41	213.03	172.51	192.87	New Maria Camp, Chiquibul Forest Reserve
42	185.57	136.53	141.03	Irish Creek, Rio Bravo
43	167.89	132.77	134.67	Irish Creek, Rio Bravo
44	212.52	172.09	167.91	Irish Creek, Rio Bravo
45	213.34	174.56	169.32	Irish Creek, Rio Bravo
46	207.63	175.96	181.71	Marimba, Rio Bravo
47	214.62	181.38	186.63	Marimba, Rio Bravo
48	208.84	195.76	198.45	Marimba, Rio Bravo
49	177.90	137.81	145.34	Marimba, Rio Bravo
50	165.60	128.75	133.71	Marimba, Rio Bravo
51	176.05	157.74	156.44	Marimba, Rio Bravo
52	275.96	231.21	196.40	Lion Camp, Columbia River Forest Reserve
53	316.30	220.09	236.22	Lion Camp, Columbia River Forest Reserve

54	341.87	296.59	259.22	Union Camp, Columbia River Forest Reserve
55	466.02	313.12	241.99	La Flor, Chiquibul Forest Reserve
56	374.64	240.85	229.46	La Flor, Chiquibul Forest Reserve
57	343.08	208.31	186.58	La Flor, Chiquibul Forest Reserve
58	305.41	220.71	198.80	La Flor, Chiquibul Forest Reserve
59	221.56	171.42	142.09	S-hill, Columbia River Forest Reserve
60	132.54	76.31	85.74	S-hill, Columbia River Forest Reserve
61	305.55	232.91	201.92	S-hill, Columbia River Forest Reserve
62	155.76	91.00	102.56	S-hill, Columbia River Forest Reserve
63	395.05	276.24	214.27	Twist-ankle Valley, Columbia River Forest Reserve
64	297.82	253.64	198.65	Twist-ankle Valley, Columbia River Forest Reserve
65	210.94	147.95	157.57	Twist-ankle Valley, Columbia River Forest Reserve
66	420.13	272.31	228.53	Back-break Hill, Columbia River Forest Reserve
67	403.04	272.45	228.71	Back-break Hill, Columbia River Forest Reserve
68	238.14	111.22	126.35	Back-break Hill, Columbia River Forest Reserve
69	264.04	259.41	222.54	Northeast Bladen
70	267.05	259.47	235.13	Northeast Bladen
Mean	244.79	186.04	181.18	204.00
±SEM	8.26	6.58	4.72	Grand Average

Annex 4: Design Systems for National Forest Monitoring and Information on Safeguards

PROPOSE ACTIONS AND IMPLEMENTATION ROUTE

1. FOREST COVERAGE BASELINE

ACTORS (high and very high level involvement)	Actions to collect data with access restriction	Action to fill information Gaps
<ul style="list-style-type: none"> • LIC • Forest department • CATHALAC • UB/ERI Galen • Funding Agencies • (PACT, GIZ, etc.) • Forest Consultants 	<ul style="list-style-type: none"> ☑ Data sharing protocols + Ethics. ☑ Pool resources to purchase / acquire high resolution imagery. ☑ Pool resources to acquire necessary software licenses. ☑ Pursue software + data donations. ☑ Acquire necessary hardware (GIZ) . 	<ul style="list-style-type: none"> ☑ Compile Landsat imagery + update imagery database regularly. ☑ Define methodology for field validation + Conduct field validation. ☑ Working agreements b/w entities to fill data gaps ref. the research priorities. ☑ Define methodologies for mapping forest types, other land covers + pilot projects. ☑ Define timeframe for updates. ☑ Create consensus among key stakeholders on the data management. ☑ Capacity building on data sharing, data collection, data analysis, etc.
Implementation route (expected results)		
Until 2012	Until 2013	Until 2014
<ul style="list-style-type: none"> • Forest cover task force created by March 2012 (roles, responsibilities). • Mapping methodology + validation methodology adopted – March 	<ul style="list-style-type: none"> • Submit proposals to Planet Action, Geo Eye Foundation for imagery + software (Feb 2013). • Start training on areas based on the need assessment (2 times for the year) • Submit funding proposals 	<ul style="list-style-type: none"> • Start draft forest + land cover map for 2014 by April 2014. • Training events (2 times a year). • Validate 2014 LC map (June 2014). • Publish 2014 LC map (Aug.

1. FOREST COVERAGE BASELINE

<p>2012.</p> <ul style="list-style-type: none"> • Purchasing of hardware • Start draft 2012 forest + land cover mapping – March 2012. • Validate 2012 land cover map – June 2012. • Publish 2012 land cover map – August 2012 • Use 2012 data to develop reforestation strategies in country. • Protocols (data sharing) define + adapted – June 2012. • Investigate use of Rapid Eye imagery from GIZ for land cover mapping • Capacity building needs assessment / initial round of workshop. • Training personnel late 2012. 	<p>to sustain trainings, fieldwork, public awareness, etc.</p>	<p>2014)</p>
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2. BIOMASS/CARBON BASELINE

<p>Actors (High and very high level of involvement)</p>	<p>Actions to collect data with access restrictions</p>	<p>Actions to fill information gaps</p>
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Forest Department Academia/ ERI CATHALAC NGO (land managers) + Private land owners	<input checked="" type="checkbox"/> Business (data sharing agreements) <input checked="" type="checkbox"/> Technology – hardware + software, capacity – training <input checked="" type="checkbox"/> Intellectual property rights (agreements) <input checked="" type="checkbox"/> Funding cooperation b/w FD + other stakeholders	<input checked="" type="checkbox"/> Plot data research: palms(allometric equations), soil, lianas roots(surrogate/proxy) <input checked="" type="checkbox"/> Develop/ accept (adapt) a methodology → number of basic parameters
Implementation route (Expected results)		
Until 2012	Until 2013	Until 2014
<ul style="list-style-type: none"> • Identify various strata • Adopted methodology (plot data) • Technology capacity building 	<ul style="list-style-type: none"> • Data sharing agreements 	<ul style="list-style-type: none"> • National forest inventory

3. REFERENCE LEVEL FOR REDD

ACTORS (high and very high level involvement)	Actions to collect data with access restriction	Action to fill information Gaps
<ul style="list-style-type: none"> • Forest Dept. – *Special partners – CATHALAC, Jan Meerman: Data collection storage & analysis. • Ministry of Agriculture: Data collection • NGOs (co-managers): Data collection storage & analysis - * projects or site level. • Climate Change Office: Storage - * coordination 	<input checked="" type="checkbox"/> Established clearing house w/ set protocols for information sharing, uploads, data integrity intellectual property. <input checked="" type="checkbox"/> Clearly define (revision) the conditions / requirements of research permits. – involve PA co-managers. <input checked="" type="checkbox"/> Agreements / policy / regulation that requires all private land owners to disclose carbon info TBO.	<input checked="" type="checkbox"/> Carbon stock inventory as part of PA management plans. <input checked="" type="checkbox"/> Expansion of PSP network. <input checked="" type="checkbox"/> Determine how often PSPs are measured – ID long term source of funding * partnerships w/ NGO to accomplish <input checked="" type="checkbox"/> Align research students with national NRM agenda (Thesis).

<p>(potential).</p> <ul style="list-style-type: none"> • Private Sector (land owners) - *interest - * size: Data collection & analysis. 		
Implementation route (expected results)		
Until 2012	Until 2013	Until 2014
<ul style="list-style-type: none"> • Reactivate / establish a national clearing house. • Compilation of existing reports on deforestation. • Public consultation to present existing reports (baseline data). • Expansion of PSPs network. 	<ul style="list-style-type: none"> • Revision of research permit. • Establish a national registry for carbon projects. • Obtain (carbon) info on areas outside of reserves (established). 	<ul style="list-style-type: none"> • Initiate process of carbon stock verification (pilot).

4. MONITORING & REPORTING

Actors (High and very high level of involvement)	Actions to collect data with access restrictions	Actions to fill information gaps
<p>MNRE: responsible for making legislative/policy arrangements for monitoring + reporting</p> <p>Co-managers: collecting/gathering data on deforestation, carbon stocks, forest use + threats</p> <p>Assessing co-benefits + safeguards</p> <p>DOE & Department of</p>	<ul style="list-style-type: none"> ☑ Negotiating data use and data sharing ☑ Agreements that are specific ☑ Preferably through networks 	<ul style="list-style-type: none"> ☑ Agree on objectives for NH Biodiversity, monitoring program + select indicators to collect data ☑ Implement ☑ Ensure that NH REDD strategy includes consideration on policy to institutionalize/operationalize monitoring + reporting framework for benefit sharing

<p>Agriculture: provide information on deforestation/ trends</p> <p>Forest Department: Establishment of national standards for PSPs Engagement of private stakeholders Authority for Pas/ extraction of forest products Training and oversight of standards Enforcement of monitoring + reporting</p> <p>ERI: Housing, maintaining, analyzing data (processing) Research on methodologies/ on the ground data collection</p> <p>Local educational institutions: training for data collection + analysis (university level).</p>		<ul style="list-style-type: none"> ☑ Research on degradation indicators ☑ Remeasure existing PSPs + expand network for national coverage ☑ Research to expand measurement to all carbon pools (field + modeling approaches) ☑ Systematize/centralize data via agreements and CHM especially from FD, DOE + Department of agriculture
Implementation route (Expected results)		
Until 2012	Until 2013	Until 2014
<ul style="list-style-type: none"> • Agree on role, rights and responsibilities of partners for PSP maintenance/ remeasurement/ form NH network • Training of multiple partners for PSP measurement and to some extent data analysis at academic institutions • Finalize/Complete national REDD Strategy 	<ul style="list-style-type: none"> • Remaining 16 PSPs located / recovered + remeasured • Seek funding to implement biodiversity monitoring PSP expansion, implement REDD strategy • Implement REDD strategy • Data collection biodiversity monitoring program/design database 	<ul style="list-style-type: none"> • Start expansion of PSP network

<ul style="list-style-type: none"> • Group of experts to define very specific/concrete research lines. RE: 5 C pools, degradation, indicators, biodiversity indicators, etc. • National workshops to define objectives + indicators for NH biodiversity monitoring program • Determine what data + from whom • Enter data use / sharing agreement terms of accessibility • Seek funding to remeasure PSPs • Design database 	<ul style="list-style-type: none"> • Ensure periodic collection of relevant data 	
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2. BIOMASS/CARBON BASELINE

Actors (High and very high level of involvement)	Actions to collect data with access restrictions	Actions to fill information gaps
Forest Department Academia/ ERI CATHALAC NGO (land managers) + Private land owners	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Business (data sharing agreements) <input checked="" type="checkbox"/> Technology – hardware + software, capacity – training <input checked="" type="checkbox"/> Intellectual property rights (agreements) <input checked="" type="checkbox"/> Funding cooperation b/w FD + other stakeholders 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Plot data research: palms(allometric equations), soil, lianas roots(surrogate/proxy) <input checked="" type="checkbox"/> Develop/ accept (adapt) a methodology → number of basic parameters
Implementation route (Expected results)		
Until 2012	Until 2013	Until 2014
<ul style="list-style-type: none"> • Identify various strata 	<ul style="list-style-type: none"> • Data sharing agreements 	<ul style="list-style-type: none"> • National forest inventory

<ul style="list-style-type: none"> • Adopted methodology (plot data) • Technology capacity building 		
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3. REFERENCE LEVEL FOR REDD

ACTORS (high and very high level involvement)	Actions to collect data with access restriction	Action to fill information Gaps
<ul style="list-style-type: none"> • Forest Dept. – *Special partners – CATHALAC, Jan Meerman: Data collection storage & analysis. • Ministry of Agriculture: Data collection • NGOs (co-managers): Data collection storage & analysis - * projects or site level. • Climate Change Office: Storage - * coordination (potential). • Private Sector (land owners) - *interest - * size: Data collection & analysis. 	<ul style="list-style-type: none"> ☑ Established clearing house w/ set protocols for information sharing, uploads, data integrity intellectual property. ☑ Clearly define (revision) the conditions / requirements of research permits. – involve PA co-managers. ☑ Agreements / policy / regulation that requires all private land owners to disclose carbon info TBO. 	<ul style="list-style-type: none"> ☑ Carbon stock inventory as part of PA management plans. ☑ Expansion of PSP network. ☑ Determine how often PSPs are measured – ID long term source of funding * partnerships w/ NGO to accomplish ☑ Align research students with national NRM agenda (Thesis).

Annex 5: Schedule and Budget

Please present any additional details of your proposed Schedule and Budget.

Annex 6: Design a Program Monitoring and Evaluation Framework

Please present any additional details of your proposed Monitoring and Evaluation.

[end]