



ADAPTATION FUND

PRE-CONCEPT FOR A REGIONAL PROJECT/PROGRAMME

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme:	INCREASING CLIMATE RESILIENCE THROUGH RESTORATION OF DEGRADED LANDSCAPES IN THE ATLANTIC REGION OF CENTRAL AMERICA
Countries:	Guatemala and Belize
Thematic Focal Area ¹ :	Disaster risk reduction and early warning systems
Type of Implementing Entity:	Multilateral Development Organization
Implementing Entity:	UN Environment
Executing Entities:	WRI and CATIE
Amount of Financing Requested:	10.009 Million (in U.S Dollars Equivalent)

Project / Programme Background and Context:

Central America is one of the most vulnerable regions in the world to climate change. As warming of the atmosphere continues, the impacts of weather extremes in the fragile and exposed Atlantic area of Central America pose a major risk for countries in the region. An assessment of hurricanes in the Caribbean concluded that the observed surge in land-falling hurricanes indicates a broader increase in average tropical cyclone wind speeds as sea-surface temperature rises, and a shift toward a greater number of Category 4 and 5 hurricanes (Curry et al. 2009). Also, an increase of land-falling of hurricanes is indicative of a broader trend in cyclone wind speeds as sea surface temperature increases in the Caribbean Sea. Besides high wind speeds, a higher impact of hurricanes and tropical storms is linked to heavy rainfall, massive river flooding and mudslides which destroy crops, affect infrastructure, limit potential for the expansion of coastal tourism and severely disrupt community-led conservation and management of forests. The protected and community-managed areas of northern Nicaragua and eastern Honduras protect the largest area of mature forest north of Amazonia and Miskito and other ethnicities are heavily dependent on them.

Land degradation and climate extremes negatively affect people's livelihoods and drive migration and resettlement upwards. As an example, entire villages were wiped out by the flooding and mudslides during catastrophic hurricanes Mitch (1998) and Felix (2007). Both extreme weather event resulted in severe impacts on coastal and inland areas of Nicaragua, Honduras, Guatemala, El Salvador, and Belize. Entire villages were wiped out by the flooding and mudslides. The number of homes destroyed was in the hundreds of thousands, and thousands of hectares of coastal

¹ Thematic areas are: Food security; Disaster risk reduction and early warning systems; Transboundary water management; Innovation in adaptation finance.

mangrove, broadleaf and pine forest were damaged or blown down. Similar losses have followed many other extreme weather events that have affected the region.

Regrettably, unsustainable land practices in the Atlantic region of Central America (Belize, Guatemala), including generalized deforestation have resulted in on-going land degradation that has translated into a decrease in resilience to weather extremes and climate impacts. Bare or degraded soils are less likely to absorb heavy rainfall and prevent runoffs. The loss of canopy and vegetation cover induces severe impacts on soil erosion during periods of extreme rainfall associated to the intensification of weather events. Of particular concern are the associated impacts that land degradation and anticipated climate change will have on the welfare of poor indigenous rural populations and the quality of the soil, water and natural biodiversity on which they depend in the Atlantic region of Central America. This coastal region is home to Miskito Indians and Garifuna who have historically experienced high rates of poverty limited access to public services and are dependent on the terrestrial and coastal-marine biodiversity of their land- and seascapes. These populations are disproportionately affected by extreme weather events.

A report on the consequences of global warming in Latin America (Vergara et al. 2013) concludes that the anticipated costs of weather extremes are amongst the most onerous financial impacts of climate change in the region. The economic impact of damages from tropical cyclones is considerable and is projected to be \$110 billion–\$149 billion for the period between 2021 and 2025, including \$80 billion–\$103 billion for Mexico’s Gulf Coast and \$30 billion–44 billion for Central America and the Antilles (Curry et al. 2009). An assessment made by Toba (2009) places the annual costs of intensified hurricane activity in the region by 2050 at approximately \$5 billion.

Fortunately, there is a growing consensus in the region that land restoration is key to protect natural capital, social welfare, promote job creation and offer a mechanism to strengthen resilience to climate impacts. This consensus is reflected in the region’s participation in Initiative 20x20, (www.initiative20x20.org) an effort to change the dynamics of land degradation in Latin America.

Some methods include revegetation and restoration of coastal areas have been shown to prevent soil erosion, reduce the likelihood of floods, contribute to maintaining stable surface hydrology and stabilize runoffs associated to extreme precipitation rainfall (UNFCC, 2012). These approaches span from restoration of mangroves and degraded inland forests to the increase of tree cover on agricultural lands.

In the Atlantic region of Central America these methods have already been applied. Specifically, in Belize, mangroves have been found to protect the immediately adjacent shoreline. Mangroves, which can mitigate the force of both waves and storm surge, shelter about half of the mainland coastline and about 75% of the shoreline of keys. Where mangroves are present, they contribute between 10–35% of the stability of the shoreline. The value of shoreline protection services provided by mangroves is estimated at US\$111–167 million per year (Cooper et al., 2008). Similar coastline ecosystems, such as those of those of Punta Manabique, Guatemala’s only marine-coastal protected area, will mitigate against extreme weather events.

A macroeconomic assessment of land restoration processes (WRI, 2016) has found that, in general, restoration of degraded land would have a positive NPV and IRR. However, the report cautions that there exist many barriers to realize the full restoration potential. Such barriers are particularly notorious in areas of extreme poverty, where focused efforts should be specially targeted. There are additionally, several barriers that have prevented more forceful actions to be taken to reduce vulnerability in the region, including, a weak regulatory framework, lack of access to information, and scant experience with adaptation systems

Initiative 20x20, a country-led effort, was launched by countries in the region in 2014 and seeks to change the dynamics of land degradation in Latin America and the Caribbean (LAC) by restoring 20 million hectares of land by 2020. Under this initiative, 15 LAC countries and 14 investment funds have committed to restoring over 50 million hectares of degraded lands and have earmarked about \$US 1.5 billion for investment in restoration, respectively.

Building on Initiative 20x20, this proposed project aims to identify and promote policies that unlock public and private funding to support the implementation of restoration investments to strengthen the resilience of the Atlantic Region to extreme weather impacts.

Project / Programme Objectives:

The project's objective is to strengthen resilience in the coastal Atlantic region of Belize and Guatemala to the impacts induced by the intensification of weather extremes. This will be pursued through the promotion of landscape restoration efforts (restoration of degraded natural forest, reforestation, optimal management of trees on farms, sustainable use of mangrove and coastal swamp forests, and landscape management) with an emphasis in poor rural areas in the region. Efforts on landscape restoration in coastal areas align to the Central America Commission on Environment and Development's strategies (CCAD 2014).

Project / Programme Components and Financing:

Component One. Enabling regulatory frameworks. The project will identify, promote and support policy and regulatory measures to be adopted by national and local land management authorities, that would enable sustainable, long-term efforts in land restoration.

Building on the political and regulatory dialogue under Initiative 20x20, the project will particularly seek to promote the deployment of fiscal and regulatory incentives to promote restoration processes in the region and, to do so, address issues of land tenure in the areas of intervention. The project will also promote and enhance social organizations, strengthening of communities, development of social platforms to steer the process, linking farms and forests to value chains for the improvement of rural economic welfare

Component Two. Regional information network. The project will support the development of a virtual regional information system focused on land-use based management, mitigation and

response systems to the intensification of extreme weather events. This system would be integrally linked to other regional information networks, for example the proposed system for the Dry Corridor of Central America. The regional information system will collect, analyse and disseminate information generated through the project and from other sources.

Component Three. Restoration measures. The project will support the design and deployment of specific measures in land restoration with a significant potential for replication by the private sector. This effort will consist of restoration investments such as revegetation of coastal areas, reforestation of denuded or degraded coastal forests and mangroves in vulnerable regions, land management schemes, such as agroforestry, silvipastoral systems and sustainable management of hurricane-damaged natural broadleaved and pine forests, that could lead to reduced vulnerability and improved social welfare. The project will also seek the adoption of monitoring processes to follow up on the long-term process of land restoration. The project will treat separately actions that will take place in coastal areas (mangrove and swamp forests) from those inland (restoration of broadleaved and natural pine forests, agroforestry-silvipastoral systems to restore tree cover in farm/pasture lands).

At least two projects per country will be implemented. The investments will seek co-financing from impact investors (2:1) working under the regional initiative for land restoration in Latin America, Initiative 20x20. The projects and co-financiers will be selected on a competitive basis through a process yet to be defined but that would seek to enhance the sustainability and scale of the AF-sponsored projects.

(Fill in the table presenting the relationships among project components, outcomes, outputs and countries in which activities would be executed, and the corresponding budgets.)

Project/Programme Components	Expected Outputs	Expected Outcomes	Countries	Amount (US\$)
1. Assessment of alternatives to promote restoration in coastal areas	Strengthen regulations and local ordinances in support of restoration as an adaptation measure to extreme weather events in coastal areas of the Atlantic region	Improved use of available technical, extension and financial services in support of restoration projects in coastal areas vulnerable to the intensification of extreme weather events	Guatemala and Belize	700,000
	Regional adaptation approach to	Efficiency in the allocation of available		

	extreme weather events	development resources		
2. Set up of a regional information system to address the intensification of extreme weather events	Regional system in operation – working to collect, analyse, disseminate and drive action on information regarding extreme weather events	Improved and timely access to information reduces the damages caused by extreme weather events	Guatemala and Belize	650,000
3. Implementation of Adaptation Measures	XX ha of coastal (mangrove, swamp) forests, XX ha of inland forests (broadleaved and natural pine) and XX ha of farm/pasture lands with restored tree cover, all affecting XX population benefits from improved resilience to extreme weather events	Restoration for adaptation investments in place, one in each country	Guatemala and Belize	7,000,000
3.				
6. Project/Programme Execution cost				875,000
7. Total Project/Programme Cost				9,225,000
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)				784,125
Amount of Financing Requested				10,009,125

Project Duration: 5 years *(In years and months)*

PART II: PROJECT / PROGRAMME JUSTIFICATION

(Provide a brief description of the proposed regional project/programme including, as a minimum², the following aspects:

The project / programme components, particularly focusing on the concrete adaptation activities, how these activities would contribute to climate resilience, and how they would build added value through the regional approach, compared to implementing similar activities in each country individually.

A regional approach is required because major wildlands, watersheds, areas lived in and governed by Miskito and Garifuna peoples, and the negative effects of climate extremes and land degradation, are all trans-frontier. Cooperation among countries is also required in early-warning systems and management responses for climate extremes. Additionally, the regional approach of this project will permit intensive comparative multi-disciplinary monitoring of restoration in different political contexts.

How the project would promote new and innovative solutions to climate change adaptation, such as new approaches, technologies and mechanisms.

Different restoration approaches will be deployed in the participating countries. This will allow the use of a maximum of different alternatives being tested in the region. The project will initiate a regional communication program and form a regional information center that will collect, analyse and disseminate information generated through the project and from other sources. The information will support decision-making and allocation of resources in the participating nations.

The cost-effectiveness of the proposed project / programme, explaining how the regional approach would support cost-effectiveness.

A coordinated regional approach will allow the use of different approaches that can be assessed through similar economic assessments. The proposed invitation to private sector to complement resources for adaptation purposes should result in cost efficient approaches.

How the project / programme would be consistent with national or sub-national sustainable development strategies, including, where appropriate, national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist. If you wish and if applicable, you can also refer to regional plans and strategies where they exist.

At a regional level, the countries have developed a regional strategy for the conservation and sustainable use of biodiversity in Meso America (Estrategia Regional para la Conservación y Uso Sostenible de la Biodiversidad en Mesoamérica (CCAD 2003)) as well as a Regional Strategy for Rural Development (Estrategia Centroamericana de Desarrollo Rural Territorial - ECADERT (CAC, 2010). These are complemented for purposes of the proposed project by a Regional Climate Change Strategy (Estrategia Regional de Cambio Climático - ERCC (CCAD 2010a)) and a Regional Strategy for the Integrated Management of Water Resources (Estrategia y Plan para la Gestión

² Please note that subsequent proposal stages (concept and fully-developed proposal) would require further information on these criteria, as well as additional criteria.

Integrada de Recursos Hídricos en Centroamérica – ECGIRH, elaborada en colaboración con CEPREDENAC (CCAD 2010b)). All of these are set in the context of a Regional Environmental Strategy (Estrategia Regional Ambiental Marco 2015-2020 – ERAM (CCAD 2014))

The región has also adopted a Regional Strategic Program for the Management of Forest Ecosystems, which calls for sustainable use, conservation and restoration of forest resources (Programa Estratégico Regional para el Manejo de los Ecosistemas Forestales - Perfor (CCAD y CAC, 2014)).

Guatemala

The project supports the implementation of the National Forest Landscape Restoration Strategy, released in 2015 that aims to improve adaptation processes to achieve better landscape management and planning on degraded landscapes. The project also supports the country adaptation efforts under the strategical objective 11 from the National Strategy on Biological diversity and the Action Plan 2012-2022 from the National Council of Protected Areas (CONAP). Additionally, this project will contribute to achieve the targets on reduction of deforestation and degradation established under the National Strategy for the reduction of the deforestation and will make the links with mitigation under the Law for the reduction of vulnerability and adaptation to climate change Decree 7-2013. The objective of this project for the improvement of livelihoods in the focus areas of the project will also contribute to the goals expressed on the National Development Plan K'atun 2032, chapter 13 on Natural resources for today and tomorrow that have the goal to protect the natural resources in equilibrium with social, cultural, economic and territorial development to satisfy the actual and future demands from the population.

Belize

The project will contribute to Belize's defined priorities in filling the existing information gap on the role of best land use practices as a means of adaptation and by linking restoration opportunities to investments. As determined in Belize's NDC under UNFCCC3, adaptation is of the utmost importance for the country due to its high vulnerability to the impacts of climate change. Priority adaptation measures considered include activities in reserves and sustainable forest management. In the agriculture sector, Belize expects a projected loss of production within the range of 10% to 20% which could lead to million dollars in lost revenue by the year 2100 (Richardson 2009). Other affected sectors include the fisheries and tourism sectors.

The project is consistent with key national and sectoral policies, strategies and action plans to incorporate climate change to enhance Belize's resilience. Priority actions are already determined in the National Climate Change Policy, Strategy and Action Plan (2015-2020). The action plan calls for, inter alia, the reviewing of national strategies and regulations, designing monitoring and evaluation frameworks, improving mangrove and habitat conservation and management, institutional strengthening, integrated water resource management and the

³ BELIZE Nationally Determined Contribution under the United Nations Framework Convention on Climate Change (https://unfccc.int/files/focus/ndc_registry/application/pdf/belize_ndc.pdf).

undertaking of comprehensive assessments on human settlements and infrastructure. More specific climate change adaptation needs in the sectorial plans include the need to educate different stakeholder groups about climate change adaptation measures and to help them develop capacity to research, develop and implement adaptation strategies.

The learning and knowledge management component to capture and disseminate lessons learned.

The proposed communication program and regional information system will ensure that lessons and experiences are quickly disseminated.

The consultative process, planned to be undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy of the Adaptation Fund.

A comprehensive consultation process would be undertaken in the region, with a focus on the populations and institutions in the most vulnerable areas of the Atlantic Corridor. The consultation will be organized with WRI's support.

How the sustainability of the project/programme outcomes would be taken into account when designing the project / programme.)

The project relies on the long-term involvement of the private sector to expand and complement the financing from the adaptation fund for the restoration activities. The involvement of the private sector will provide a 2:1 leverage on the Fund financing. The private sector resources will remake the restoration activities into productive systems that will continue to deliver the adaptation benefit.

PART III: IMPLEMENTATION ARRANGEMENTS

(At the pre-concept stage, this section should only briefly explain which organizations would be involved in the proposed regional project/programme at the regional and national/sub-national level, and how coordination would be arranged. The involvement of national institutions, and when possible, national implementing entities (NIEs), partnering in the project should be explained.)

UNEP is the Implementing Agency.

WRI will assist countries in the design and implementation of the regional information component and will also bring the 20x20 platform to bear on the adaptation measures through the participation of private impact investors. The investors will bid for expansion and operation of the adaptation measures designed under the project leveraging 4:1 the resources from the Fund.

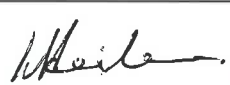

At a country level, each nation will appoint a coordinating body. These bodies plus the three institutions above will form a steering committee for purposes of project implementation.

PART IV: ENDORSEMENT BY GOVERNMENTS AND CERTIFICATION BY THE IMPLEMENTING ENTITY

- A. Record of endorsement on behalf of the government⁴** *Provide the name and position of the government official and indicate date of endorsement for each country participating in the proposed project/programme. Add more lines as necessary. The endorsement letters should be attached as annexes to the project/programme proposal.*

Hon. Omar Figueroa, Minister of State, Ministry of Agriculture, Fisheries, Forestry, the Environment, Sustainable Development, and Immigration of Belize	Date: June 27 th , 2017
Dr. Sydney Alexander Samuels Milson, Minister, Minister of Environment and Natural Resources of Guatemala	Date: June 16 th , 2017

- B. Implementing Entity certification** *Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address*

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (Belize's National Climate Change Policy, Strategy and Action Plan 2015-2020, Guatemala's National Forest Landscape Restoration Strategy) and subject to the approval by the Adaptation Fund Board, <u>commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund</u> and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
<p>Leo Heileman Director and Regional Representative UN Environment Office for Latin America and the Caribbean Clayton, City of Knowledge - Morse Avenue, Building 103 Corregimiento de Ancón - Panama City, PANAMA</p> <p>Implementing Entity Coordinator</p>	 
Date: November 21 st , 2017	Tel. and email: (507) 305-3133 leo.heileman@unep.org
Project Contact Person: Tel. And Email: (507) 305-3127 gustavo.manez@unep.org	

GM

⁴ Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.



**Ministry of Agriculture, Fisheries, Forestry, The
Environment, Sustainable Development and Immigration**

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Please Quote

Ref No: GEN/11/01/17 (74) VOL. V

June 27, 2017

The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: secretariat@adaptation-fund.org
Fax: 202 522 3240/5

Subject: Support letter for the project proposal entitled "Increasing climate resilience through restoration of degraded landscapes in the Atlantic region of Central America"

We wish to refer to the project concept "Increasing climate resilience through restoration of degraded landscapes in the Atlantic region of Central America" presently under development by World Resources Institute (WRI) and Centro Agronómico Tropical para la Investigación y Enseñanza (CATIE).

We wish to provide our endorsement and support for the project proposal submitted by WRI and CATIE which supports our National Climate Change Policy in advancing adaptation actions to reduce the adverse impacts and risks posed by climate change.

Sincerely,

Hon. Omar Figueroa, PhD.
Minister of State in the
Ministry of Agriculture, Fisheries, Forestry,
the Environment, Sustainable Development
and Immigration

c: National Climate Change office



**MINISTERIO DE AMBIENTE Y RECURSOS NATURALES
GUATEMALA, C.A.**

Ministro

Guatemala, 16 de junio de 2017
Oficio-No.MI-790-2017/SASM-pm

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for INCREASING CLIMATE RESILIENCE THROUGH RESTORATION OF DEGRADED LANDSCAPES IN THE ATLANTIC REGION OF CENTRAL AMERICA

In my capacity as designated authority for the Adaptation Fund in Guatemala, I confirm that the above regional) programme proposal is in accordance with the government's priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the region.

Accordingly, I am pleased to endorse the above programme proposal with support from the Adaptation Fund. If approved, the project/programme will be implemented by [implementing entity] and executed by WRI and CATIE.

Sincerely,



Dr. Sydney Alexander Samuels Milson
Ministro
Ministerio de Ambiente y Recursos Naturales

c.c: Cooperacion Internacional
Archivo