

# Please fill in the form in the grey spaces, by following the instructions in italic.

Requesting country:	Dominican Republic	
Request title:	Blue Carbon NAMA	

### **Contact information:**

*{Please fill in the table below with the requested information. The request proponent is the organization that the request originates from, if different from the National Designated Entity (NDE).}* 

	National Designated Entity	Request Applicant
Contact person:	Mr. Pedro Garcia Brito, M.sc.	Mr. Paul Guggenheim
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### **Technology Needs Assessment (TNA):**

{Select one of the three boxes below:}

The requesting country has conducted a TNA in .... (please insert date of TNA completion)

The requesting country is currently conducting a TNA

The requesting country has never conducted a TNA

*{If the requesting country has completed a TNA, please indicate what climate technology priority this request directly relates to. Please indicate reference in TNA/TAP/Project Ideas.}* 

## **CTCN Request Incubator Programme:**

{Please indicate if this request was developed with support from the Request Incubator Programme: }

Yes

🖂 No



### **Geographical focus:**

{Select below the most relevant geographical level for this request:}

Community-based

Sub-national

🛛 National

Multi-country

*{If the request is related to the sub-national or multi-country level, please indicate here the areas concerned (provinces, states, countries, regions, etc.)}* 

### Theme:

*{Select below the most relevant theme(s) for this request:}* 

Adaptation to climate change

Mitigation to climate change

Combination of adaptation and mitigation to climate change

### Sectors:

{*Please indicate here the main sectors related to the request. e.g. energy, industry, transport, waste, agriculture/fisheries,* **forestry**, *water,* **ecosystem/biodiversity**, **coastal zones**, *health, education, infrastructure/human settlement, tourism, businesses, early warning/disaster reduction, institutional design and mandates, cross-sectorial*}

## **Problem statement** (up to one page):

{*Please describe here the difficulties and specific gaps of the country in relation to climate change, for which the country is seeking support from the CTCN. Please only provide information directly relevant to this request, and that justifies the need for CTCN technical assistance.*}

The Dominican Republic, rated the 8<sup>th</sup> most vulnerable country to climate change in the 2015 Global Climate Risk Index, is an island nation highly susceptible to negative effects of increasing and erratic climate change including significant storm events and drought, sea level rise, ocean temperature increase, and other threats that can degrade estuarial ecosystems such as mangrove complexes that provide essential ecological and economic services. Some of the most vulnerable sectors include tourism, agriculture, local fisheries and infrastructure, especially in coastal communities. These vulnerabilities affect employment / livelihoods and quality of life across the Dominican Republic, where a significant level of the population lives within 25km of the coast. Based on research demonstrating that some mangroves in the Dominican Republic have higher than normal capacities for sequestering and storing carbon, the country is supportive of developing a Blue Carbon NAMA to build its capacity to develop and implement a comprehensive, inclusive national action strategy to increase its carbon sequestration through targeted mangrove conservation and forestation.

The CTCN's technical assistance would be key to helping the DR build its capacity to quantify its blue carbon stocks, project scenarios of business as usual vs. restoration and reforestation, increase capacity for developing an effective MRV, all of which would contribute to stakeholder understanding and commitment around the subject. Mitigation efforts that restore and conserve mangrove thus increasing the carbon sequestration capacity would also bring



about co-benefits in adaptation and resiliency serving the nation's coastal communities through increased ecosystem services, employment opportunities and quality of life. These efforts will complement the coordination leadership and technical support provided by Counterpart International, in supporting the Dominican government.

# **Past and ongoing efforts** (up to half a page):

{Please describe here past and on-going processes, projects and initiatives implemented in the country to tackle the difficulties and gaps explained above. Explain why CTCN technical assistance is needed to complement these efforts, and how the assistance can link or build on this previous work.}

In a study/workshop conducted by Counterpart in 2014 it was found that ecosystem carbon stocks of the mangroves of the Monti Cristi Region, DR (1) had among the largest carbon stocks of any tropical forest ecosystems and (2) their loss led to extremely large emissions of greenhouse gasses. This was a study led by Oregon State University (Dr. Boone Kauffman) in conjunction with CIBIMA, AgroFrontera and published in 2014. Many participating organizations, government agencies, Universities, and local communities were trained. This field training and carbon inventory can be replicated in other mangroves of the country leading to a national inventory and baseline establishment of blue carbon.; Information needed for a NAMA.

Ministry of Environment's REDD efforts are mapping forest resources across the country including mangroves. Other NGOs, including CEBSE, FUNDEMAR, PCEF, Grupo Jaragua, etc... have made some efforts at mangrove restoration. These efforts could be linked together under systematized best practices and coordinated for measurement and verification.

## Assistance requested (up to one page):

{Please describe here the scope and nature of the technical assistance requested from the CTCN and how this could help address the problem stated above and add value vis-à-vis the past and on-going efforts. Please note that the CTCN facilitates technical assistance and is not a project financing mechanism.}

Broadly, during the Preparation phase, we hope to build the capacity in the Dominican Republic to quantify mangrove based blue carbon potential in the country; elevate and widen the national level conversation to include multiple stakeholders to participate; develop a sound monitoring, verification and reporting structure; initiate steps to establish research laboratories around the country in key areas; identify strategies for financing and economic benefit for communities affected;

We want to build the capacity for participation in mitigation and adaptation strategies, to be accomplished through field trainings, education in data analysis, and establishment of appropriate laboratory facilities, laboratory procedures, and final reporting. Identification of potential areas for conservation, enhancement, and restoration. Conduct workshops for scientists and resource managers on methodological approaches for the quantification of carbon stocks of coastal ecosystems that would provide participants with the knowledge, mechanisms, and practical tools needed for the Measurement, Monitoring and Reporting of Carbon stocks/emissions in mangrove and other tropical wetland or coastal ecosystems.

We hope to also gain assistance in seeking funding for Implementation of the NAMA, which the CTCN is well positioned to help with.



## **Expected benefits** (up to half a page):

*{Please outline here the medium and long-term impacts that will result from the CTCN technical assistance, including how the assistance will contribute to mitigate and/or adapt to climate change.}* 

In the short to medium term, the support will: Build capacity of the country to establish a national inventory of its current and potential Blue Carbon stocks; Develop capacity for MRV of blue carbon resources; Explore sustainable strategies for mangrove conservation and restoration; Build knowledge base regarding blue carbon and dialogue, action planning and commitment at national level, while integrating communities through positive incentives; Establish a structure of research laboratories around the country ; and Set the DR on a course of leadership in blue carbon work that can be disseminated to other countries.

Tropical wetland ecosystems are known to contain critical ecosystem services to humanity including their function as among the most important and largest ecosystem carbon stocks on earth. Yet, they are among the least studied of tropical ecosystems and face tremendous exploitation pressures. Rates of deforestation of mangroves are among the highest on any topical forest type on earth and the greenhouse gas emissions arising from their widespread conversion are significant contributions to climate change (Donato et al. 2013 Kauffman et al., 2014). Given their important ecosystem services, their large carbon stocks, and rapid rates of land conversion, they are potentially ideal candidate ecosystems for participation in climate change mitigation (and adaptation) strategies such as nationally appropriate mitigation actions (NAMAS), voluntary markets, and REDD+.

Participation in either voluntary or regulatory climate change mitigation and adaptation programs requires quality collection, monitoring, and reporting of baseline data on carbon stocks and emissions. Globally, data are lacking with respect to carbon stocks and dynamics in tropical coastal wetlands. With strengthened capacity to design, measure and analyze data established or strengthened, this assist will help resource managers, decision makers, and scientists interested in addressing the challenging task of filling the gaps related to carbon accounting in mangrove and other "Blue Carbon" ecosystems.

There is currently great interest in establishing NAMAs for mangroves and other blue carbon ecosystems throughout the world. This is important as mangroves are not only significant sources and sinks of atmospheric carbon but provide a number of critical ecosystem services to coastal communities. They are clearly vulnerable to land use as well as climate change impacts such as sea level rise. By increasing the expertise in the DR, eventual multiplication of efforts can be invested in other countries in order to accomplish regional and even broader conservation and restoration.

## **Post-technical assistance plans** (up to half a page):

{Please describe here how the results of the CTCN technical assistance will be concretely used by the applicant and national stakeholders, to pursue their efforts of resolving the problems stated above after the completion of the CTCN intervention (list specific follow-up actions that will be undertaken).}

Implement the world's first Blue Carbon NAMA

The results of the CTCN technical assistance will enable, through strengthened capacity of local stakeholders and the applicant, to identify and acquire funding and other support to finance and to implement the BC NAMA on a nationwide scale. The implementation of the NAMA will build on the expertise and capacity attained and developed from the CTCN



assistance. The commitments achieved from the public and private sector stakeholders to implement the NAMA, based on national dialogue and series of workshops and forums during the Preparation that will have revealed economic and adaptation benefits, and solutions to challenges such as developing the science and supporting infrastructure, economic instruments that generate income for communities as incentives for conserving, restoring mangroves, and a map for how the DR can be a leading model for other countries to develop blue carbon NAMAs and other instruments with co-benefits. Some future developments after the CTCN technical assistance may be hard to define at this time, since part of the Preparation phase will include gathering input from multiple stakeholders for future planning. It may be that the stakeholders decide that developing policies to protect mangroves currently outside of the national protected areas limits is a worthy pursuit. In such a case municipal governments may begin to play a significant role. Or it may be that one or more of the consortiums of companies in the country unite to invest in restoration and community participation for the Implementation of the BC NAMA and beyond.

## Key stakeholders:

{*Please list in the table below the main stakeholders who will be involved in the implementation of the requested CTCN technical assistance, and what their role will be in supporting the assistance (for example, government agencies and ministries, academic institutions and universities, private sector, community organizations, civil society, etc.). Please indicate what organization(s) will be the main/lead counterpart(s) of CTCN experts at national level, in addition to the NDE.}* 

Stakeholder	Role to support the implementation of the assistance
Counterpart International	Lead coordinating entity, providing technical support and coordination with Public and Private Sector and NGOs
Ministry of Environment—Office of Climate Change	National Designated Entity (NDE), Focal point for international environmental agreements including UNFCCC (Art. 18, low 64-00), a leader in policy development on Environment and Natural Resources of the country, lead International Environmental Cooperation.
Ministry of Environment—Vice Ministry of Coastal Marine Resources	Coastal expertise and authority around the country
Ministry of Environment—Vice Ministry of Protected Areas and Biodiversity	Protected areas expertise and authority around the country
National Council on Climate Change and the Clean Development Mechanism (CNCCMDL)	As Focal Point/Approver for NAMAs in the DR, a leader in policy development, international promotion, linkages, and more (Decree 601-08)
Communities	Dominican coastal communities will play a key role in participating in research, education, conservation and income generating efforts
Municipal and other local public sector institutions	Municipal and other local public sector institutions in Dominican coastal communities will play a key role in participating in research, education, conservation and income generating efforts
German Development Agency (GIZ)	Support in seeking out funding



Private Sector: Representatives of groups such as ECORED, Asociacion Empresarial INdustria Herrera (AEIH), American Chamber of Commerce (AMCHAM), German Chamber of Commerce, etc	Support for funding
Various nongovernmental and academic institutions	The following organizations will play a role in research, community outreach and conservation action (other partners may be identified)
Oregon State University	Scientific technical expertise provides support in blue carbon measurement
AgroFrontera	Dominican nongovernmental organization with training in blue carbon measurement—Montecristi region
Centro de investigación de Biología Marina (CIBIMA)	Dominican marine biology research center in University of Santo Domingo with training in blue carbon measurement
Center for the Conservation and Eco- Development of Samaná Bay and its Surroundings (CEBSE)	Partners in mangrove conservation and community outreach—Samana Bay region
Other stakeholders	Other stakeholders may not have been identitfied in this document yet

## Alignment with national priorities (up to half a page):

{Please demonstrate here that the technical assistance requested is consistent with documented national priorities (examples of relevant national priorities include: national development plans, poverty reduction plans, technology needs assessments (TNAs), LEDS, NAMAs, TAPs, NAPs, sectorial strategies and plans, etc.). For each document mentioned, please indicate where the priorities specifically relevant to this request can be found (chapter, page number, etc.).}

- Law of Environmental Protection 64-00,
- Ramsar Convention on Wetlands (four sites of international importance registered in the DR),
- Estrategia Nacional de Desarrollo (END) 2030, Law 1-12
- Intended Nationally Determined Contributions (INDCs),
- Low Emissions Development Strategies (LEDS),
- Plan de Accion Nacional para la Adaptacion del Cambio Climatico en la Republica Dominicana (PANA RD),
- Plan de Desarrollo para Cambio Climatico (CCDP),
- Decree 303 from 1987 (an older law singling out mangroves for protection) demonstrates a historical record of value for mangroves

## **Development of the request** (up to half a page):

{Please explain here how the request was developed at the national level and the process used by the NDE to approve the request before submitting it (who initiated the process, who were the stakeholders involved and what were their roles, and describe any consultations or other meetings that took place to develop and select this request, etc.)}



In 2012 research led by Counterpart International began in Montecristi National Park in the DR to understand the capacity of the mangrove system for blue carbon stocks. In 2014 Counterpart's efforts to promote linkages between sound science and policy led to the publishing of the blue carbon study in the Montecristi National Park which had been implemented by Oregon State University's Dr. Boone Kauffman, with support from the NGO AgroFrontera, the marine biology research center, CIBIMA, of the University of Santo Domingo, and Counterpart. The study revealed extraordinarily high levels of carbon stocks stored in the mangrove sites tested, and comparatively low stocks stored in nearby lands composed of abandoned shrimp ponds which had formerly been mangroves. When the results were shared and discussed with the government's Climate Council (CNCCMDL), the significance of the evidence generated a dialogue on mangroves' potential benefits for carbon mitigation and increased climate resiliency for the country. The Council then asked Counterpart to develop a Nationally Appropriate Mitigation Action (NAMA) focused on Blue Carbon. In June 2015 the government registered the first ever Blue Carbon NAMA in the UNFCCC's NAMA Registry.

In conversations with GIZ, the Inter-American Development Bank, the MacArthur Foundation, with international scientsists and leaders such as Dr. Eduardo Calvo of Peru, support and interest was generated over the NAMA theme. In September interest was expressed by the CTCN and NAMA Registry to offer technical support for Preparation. November 2015 the NAMA Concept was presented officially to the NDE based in the Climate Change office in the Ministry of Environment. In January 2016 the Vice Ministers of Coastal Marine Resources, Protected Areas, and International Cooperation were consulted, and in February 2016 a stakeholder's meeting including the key offices of the government and representatives of associations of the private sector engaged in a stakeholders round table to learn about, discuss, and offer feedback regarding the Blue Carbon NAMA. There has been consensus that the NAMA is a positive opportunity for the DR in Mitigation and Adaptation.

- August 2012 -- Blue Carbon research initiated in Montecristi
- April 2014 -- DR Blue Carbon study published
- November 2014 -- dialogue between DR Climate Council and Counterpart International identified the NAMA model
- April 2015 -- BC NAMA Concept designed
- June 2015 First Blue Carbon NAMA in NAMA Registry
- **October 2015** -- CTCN offered complimentary technical support for Preparation phase of NAMA (in process of determining specific support)
- November 2015 NAMA Concept presented to NDE in DR's Climate Change office of Ministry of Environment, The NDE offered to support the process as a priority
- January 2016 One on one conversations with three Vice Ministers in the Ministry of Environment and Natural Resources
- **February 2016** Stakeholder meeting with private sector, Ministry officials including NDE, and CNCCMDL
- **Future:** Will be seeking support for Implementation, possible Green Climate Fund, other partnerships



#### **Expected timeframe:**

*{Please propose here a duration period for the assistance requested.}* 1.25 years for Preparation and 4 years for Implementation

#### **Background documents:**

{Please list here relevant documents that will help the CTCN understand the context of the request and national priorities. For each document, provide weblinks if available, to attach to the submission form while submitting the request. Please note that all documents listed/provided should be mentioned in this request in the relevant question(s), and that their linkages with the request should be clearly indicated.}

1. Dominican governmental documents:

Law of Environmental Protection 64-00, Ramsar Convention on Wetlands (four sites of international importance registered in the DR), Estrategia Nacional de Desarrollo (END), Intended Nationally Determined Contributions (INDCs), Low Emissions Development Strategies (LEDS), Plan de Accion Nacional para la Adaptacion del Cambio Climatico en la Republica Dominicana (PANA RD), Plan de Desarrollo para Cambio Climatico (CCDP), Decree 303 from 1987 (an older law singling out mangroves for protection), NAMA Registry's Blue Carbon NAMA in the DR

- 2. Documents created by Counterpart International in conjunction with Dominican partnerships: BC study, Concept Paper, Counterpart website, BC NAMA process presented by CNCCMDL on behalf of Counterpart International at COP21
- 3. Documents created by other third parties: NAMA News story on BC NAMA in the DR.

### Monitoring and impact of the assistance:

### {Read carefully and tick the boxes below.}

By signing this request, I affirm that processes are in place in the country to monitor and evaluate the assistance provided by the CTCN. I understand that these processes will be explicitly identified in the Response Plan in collaboration with the CTC, and that they will be used in the country to monitor the implementation of the CTCN assistance.

I understand that, after the completion of the requested assistance, I shall support CTCN efforts to measure the success and effects of the support provided, including its short, medium and long-term impacts in the country.

#### Signature:

NDE name: Pedro Garcia Brito

Date: 07/04/2016 Signature:

## THE COMPLETED FORM SHALL BE SENT TO THE CTCN@UNEP.ORG