## **ADAPTATION FUND**

Welcome to the 9<sup>th</sup> Readiness Webinar!

Please click "Connect to audio / Call using computer" to be connected to the webinar.

The webinar will start at 9:00am EDT





## **ADAPTATION FUND**

Readiness Programme for Climate Finance

Webinar #9: Evidence based interventions – Assessing vulnerability and feasibility for sustained local-level resilience: experiences and lessons learned from Adaptation Fund

> 24 October 2019 9:00 – 10:30am EDT





- 9:00 Introduction from the AFB secretariat Farayi Madziwa, Readiness Programme Coordinator, AFB Secretariat
- 9:10 CTCN's experience with evidence-based interventions **Rajiv Garg**, Regional Manager East and Southern Africa & West and Central Asia, Climate Technology Centre and Network (CTCN)
- 9:20 NIE experience with VAs and evidence-based project scaling-up **Innocent Musabyimana**, Single Projects Implementation Unit Coordinator, Rwanda Ministry of Environment (MoE)
- 9:30 NIE Experience with feasibility studies Aïssata Boubou Sall, Head of Climate Finance Unit Centre de Suivi Écologique (CSE)
- 9:40 NIE experience with feasibility study and climate change interventions **Joan Sampson**, Project Coordinator at the DoE, Department of Environment (DoE), Antigua and Barbuda
- 9:50 NIE experience with project formulation grant (PFG) and feasibility study **Arcadia Francisco**, Project Coordinator, **Rafael Beriguete**, Project Consultant, **Pedro Zuccarini**, M&E Project Consultant, Dominican Institute of Integral Development (IDDI), Dominican Republic
- 10:00 Dialogue and exchange.
- 10:30 Summary and close

## Helpful tips

- Keep your microphone muted during presentations
- Avoid sharing your video (icon on bottom of screen)

- Raising hand
- Chat window
- General discussion and Q&A in the end
- Please take evaluation at the end





CTCN's experience with evidence-based interventions – Rajiv Garg, Regional Manager - East and Southern Africa & West and Central Asia, Climate Technology Centre and Network (CTCN)



Evidence based interventions – Assessing vulnerability and feasibility for sustained local-level resilience

Rajiv Garg, Regional Manager Climate Technology Centre and Network



## **CTCN: UNFCCC Technology Mechanism**



UN Climate Technology Centre and Network (CTCN) is the operational arm of the UNFCCC Technology Mechanism.

Our mandate is to support the development, transfer, deployment and dissemination of climate technologies that can deliver mitigation or adaptation outcomes.





## **CTCN** service areas and core sectors



Agriculture **Energy Supply** Forestry Industry Transport Waste Management

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**Agriculture & Forestry Coastal Zones** Early Warning & Environmental Assesment Human Health Infrastructure, Transport & Urban Design **Marine & Fisheries** Water

## **Requests for Technical Assistance**

![](_page_8_Picture_1.jpeg)

![](_page_8_Figure_2.jpeg)

![](_page_8_Picture_3.jpeg)

## **Distribution of Technical Assistance Requests by Sector**

![](_page_9_Figure_1.jpeg)

# **CTCN Experience :** Climate Change Vulnerability and Adaptation Study for the Port of Port Louis

![](_page_10_Picture_1.jpeg)

Objective : Undertake climate risk assessment for the Port of Port Louis, both land based and sea-based, that will identify current vulnerabilities and future risks, evaluate the risks, identify and prioritize adaptation options using a multi-criteria analysis and set a monitoring baseline.

#### Expected Benefits :

- Enhancing the resilience of port infrastructure to support future economic development
- Ensuring that climate changes are incorporated in future design specifications such as sea level rise and storm surges
- Mitigating the impact of climate change through proper climate resilient spatial planning of the port
- Enabling more targeted investment in technology and equipment such as gantry loaders, shore cranes, etc. that will adapt to future climate changes
- Identifying areas where upgrading of infrastructure including port facilities, storage areas and navigation systems are required.

![](_page_10_Picture_9.jpeg)

**CTCN Experience** : Improving resiliency of crops to drought through strengthened early warning within Ghana

![](_page_11_Picture_1.jpeg)

**Data** : Use of satellite-based data strengthened by methods for automated download and processing of relevant satellite data to avail near real time satellite products related to the crop, climate and soil moisture conditions and impacts.

**Climate forecast**: Seamless weather forecasting functionalities enabling climate forecast across different temporal scales from short to seasonal to decadal periods. Use of climate forecast products.

**Early warning**: The criteria for the early warning categories are to be determined through the national stakeholders' consultation.

**Planning**: Planning methods incorporating the early warning assessments and the uncertainty associated with climate predictions addressed. Identification of solutions that are robust and resilient towards droughts.

**Dissemination**: The dissemination and outreach part of a warning and forecast system is one of the key components.

![](_page_11_Picture_7.jpeg)

# **CTCN Experience** : Resilience to climate variability in the building sector of Antigua and Barbuda

![](_page_12_Picture_1.jpeg)

- The country has experienced >10 hurricanes in 20 years. Each brought loss of lives, damages on buildings and ecosystems, and lack of access to electricity.
- CTCN conducted technical assessments of key government buildings, including hospitals, police offices, fire stations and schools, and identified the interventions to make them resilient to climate change and variability, and their costing.
- This support led to the development of a funding proposal to GCF for scaling up the building resilience project.

| Propon<br>ent | Ministry of Agriculture,<br>Housing, Lands and the<br>Environment | TA<br>implem<br>entor | UNEP; Engineering<br>Construction and<br>Management<br>Consulting (St. Lucia) |
|---------------|---|-----------------------|---|
| NDE           | Ministry of Agriculture,<br>Housing, Lands and the<br>Environment | Budget                | 96,000 USD  |

![](_page_12_Picture_6.jpeg)

![](_page_13_Picture_1.jpeg)

- Stakeholders Identification and Consultations Civil Society and Gender
- Data Availability Site specific , format of data digital/manual ; data retrieval
- Modelling and Projections
- Software package used
- Linkages with Universities and other public institutions
- Local Institutions and absorptive Capacity

![](_page_13_Picture_8.jpeg)

## **CTCN: Centre & Network**

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![](_page_14_Figure_2.jpeg)

#### Distribution of Network Members by Type of Institution

![](_page_14_Figure_4.jpeg)

![](_page_14_Picture_5.jpeg)

![](_page_15_Picture_1.jpeg)

- Country demand driven matching needs with Network technology expertise
- Funded primarily by contributions from developed country parties

Four step process:

- 1. Local proponent works with NDE to submit request
- 2. NDE submits CTCN
- 3. Team of CTCN experts collaborate with NDE to develop a tailored solution (response plan)
- 4. Response plan is implemented

![](_page_15_Picture_9.jpeg)

![](_page_16_Picture_0.jpeg)

CLIMATE TECHNOLOGY CENTRE & NETWORK

**CTCN Secretariat** UN City, Marmorvej 51 DK-2100 Copenhagen, Denmark www.ctc-n.org ctcn@un.org

UNFCCC\_CTCN UNFCCC.CTCN

#### Supported by

![](_page_16_Picture_5.jpeg)

Norwegian Ministry of Foreign Affairs

![](_page_16_Picture_7.jpeg)

![](_page_16_Picture_8.jpeg)

MINISTERO DELL'AMBIENTE EDFLIATUTELA DEL TERRITORIO E DEL MARE

![](_page_16_Picture_9.jpeg)

![](_page_16_Picture_10.jpeg)

Schweizerische Eidgenossenschaft Confédération suisse **Confederazione** Svizzera Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs, Education and Research EAER State Secretariat for Economic Affairs SECO

![](_page_16_Picture_14.jpeg)

![](_page_16_Picture_16.jpeg)

Federal Ministry for Economic Affairs Canada and Energy

K

Ministry of Science and ICT

Government Offices of Sweden Ministry of the Environment and Energy

MINISTRY FOR FOREIGN AFFAIRS OF FINLAND

Comhshaol, Pobal agus Rialtas Áitiúil Environment, Community and Local Governmen

UN 😥 environment

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NIE experience with VAs and evidence-based project scaling-up -Innocent Musabyimana, Single Projects Implementation Unit Coordinator, Rwanda Ministry of Environment (MoE)

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# 9<sup>TH</sup> WEBINAR FOR ACCREDITED NIES OF THE FUND ON OCTOBER 24, 2019 FROM 9:00-10:30AM EDT

## TOPIC: EVIDENCE BASED INTERVENTIONS – ASSESSING VULNERABILITY AND FEASIBILITY FOR SUSTAINED LOCAL-LEVEL RESILIENCE: EXPERIENCES AND LESSONS LEARNED FROM ADAPTATION FUND.

## Questions to be answered during the Presentation

- When the project was developed, was project design done factoring in that the project could be scaled-up in the future or has scale-up been an idea that came later?
- Can you please explain how the opportunity to scale-up your project was influenced by the results of your medium-term review/evaluation (MTR/MTE)?
- What other evidence are you going to use to support the rationale and development of activities you intend to scale-up? e.g., baselines, studies, assessments, research, etc.
- What is the biggest lesson you can share with peers about using evidence to inform climate change interventions?

When the project was developed, was project design done factoring in that the project could be scaled-up in the future or has scale-up been an idea that came later?

- •Yes under **Output 3.1** Training of government technical staff in climate risk management and flood and landslide prevention measures for further scaling up
- •Field visits were performed by communities to visit projects' achievements "come and see go and implement"

Can you please explain how the opportunity to scale-up your project was influenced by the results of your medium-term review/evaluation (MTR/MTE)?

- During the Midterm Evaluation the Evaluator selected other activities than farming are very importance in terms of resilience to climate change, testimonies from the communities
- Also terraces have been identified as important in the area of flood control and landslide management
- General message from interviewees was there is a need for scaling up.
- Every project in Rwanda, should have an exit and this include sustainability measures and scaling up projects' achievements.

![](_page_22_Picture_0.jpeg)

107 young boys and girls have been supported to afford VTCs (65% are women)

![](_page_23_Picture_0.jpeg)

What other evidence are you going to use to support the rationale and development of activities you intend to scale-up? e.g., baselines, studies, assessments, research, etc.

- Vision 2050: For Rwanda to be a developed climate-resilient, low-carbon economy by 2050.
- **Priority 7:** Sustainable Management of Natural Resources and Environment to Transition Rwanda towards a green economy, this is enriched in the National Strategy for Transformation 2017/2018-2024/2025
- Tool kit for smart Green Village developed in May, 2015, highlighted Rainwater Harvesting, terracing and tree planting as key ingredients to achieve climate resilient, Economic development and the creation of jobs, Promoting resource efficiency and mitigating climate change

What is the biggest lesson you can share with peers about using evidence to inform climate change interventions?

- Some of the Project we develop do not have exit strategy and hence exit strategy for a project is very important to think about the project scaling up
- It is up to the Development Partner or the Government to plan a budget for developing a project proposal for scaling up
- It is also good to document lessons learnt during the implementation of the Project so that during the scaling up step you can avoid some technical or administrative problems

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18.3

# Thank

![](_page_27_Picture_0.jpeg)

NIE Experience with feasibility studies - Aïssata Boubou Sall, Head of Climate Finance Unit - Centre de Suivi Écologique (CSE)

![](_page_28_Picture_0.jpeg)

NIE experience with feasibility study and climate change interventions – Joan Sampson, Project Coordinator at the DoE, Department of Environment (DoE), Antigua and Barbuda

## NIE experience with feasibility study and climate change interventions

WEBINR :

Evidence based interventions – Assessing vulnerability and feasibility for sustained locallevel resilience: experiences and lessons learned from Adaptation Fund o Octobe 24, 2019

> Joan Sampson, Project Coordinator Department of Environment (DoE), Ministry of Health and the Environment Antigua & Barbuda

#### **PPROJECT TITLE**

An integrated approach to physical adaptation and community resilience in Antigua and Barbuda's northwest McKinnon's watershed

- The project takes place within the McKinnon's watershed One of Thirteen watershed in the island
  - Its communities are characterized by:
  - Flooding,
  - High levels of poverty,
  - Vector borne illnesses,
  - vulnerability to hurricanes and sea level rise.
  - No hurricane shelters within this community.
  - Background of social challenges.
  - Polluted waterways
  - Drought & Degradation

## **Project Area**

![](_page_31_Figure_1.jpeg)

#### **PPROJECT TITLE**

## An integrated approach to physical adaptation and community resilience in Antigua and Barbuda's northwest McKinnon's watershed

#### **Project Goal**

To reduce vulnerability of the community, by increasing the ability of the watershed to handle extreme rainfall, while increasing the resilience of the built environment simultaneously to cope with the multiple stressors of climate change.

- Project1.Implement concrete adaptation actions that support natural and<br/>physical drainage systems along the 3 km urban and semi-urban<br/>waterways to meet projected climate change, in particular<br/>extreme hydro-meteorological events and disease vectors.
  - 2. Disburse concessional loans through a revolving fund mechanism to vulnerable households to meet new adaptation guidelines and standards for built infrastructure to withstand extreme climate variability.
  - 3. Support social adaptive capacity and local ownership of adaptation through community-awarded contracts and climate resilient community-built infrastructure such as community centers, schools and clinics.

## Project Components

- Upgrade urban drainage and waterways to meet projected climate change impacts
- Revolving Loans for homes in McKinnon's watershed to meet new adaptation guidelines established in the building code and physical plan
- **C** 3

**C**1

• Adaptation mainstreaming and capacity building in NGOs and community groups to sustain project interventions

## Some preliminary indicators on project impacts

- 5 percent of homes are equipped with 2 weeks' worth of water stored on-site with filtration and pump equipment
- 5 percent of homes (approximately 200) benefit from the installation of hurricane shutters and rain water harvesting
- The number of persons requiring shelters during droughts/extreme weather events is reduced by 50 percent, with priority for vulnerable populations including single mothers, older persons and children, particularly special needs children
- 5 percent of vulnerable homes and 30 percent of shelters have back up energy using renewable energy (for essential services including pumping water)
- McKinnon's waterway can withstand a 1 in 50-year extreme rainfall event
- Mosquito larvae in water bodies in the area are reduce by at least 30 percent
- 40 percent of the families and businesses are exposed to the public awareness knowledge products of the project
- Three community groups are trained in the management and maintenance of the adaptation interventions in the waterways
- Physical planning in local area is updated to reflect new findings of the IPCC AR5 report and regional climate modelling.

#### Example of an Output:

• Technical Design for upgrade of McKinnon's Waterway & Woods Pond – Completed

Feasibility study for climate resilient drainage. (During the project preparation stage of this project).

- Technical Feasibility Study for the project was conducted by Engineers without Borders,
- Quality of the project and the possibility of the structures of the project
- To understand the various factors to be considered through technical analysis, selection of location, required institutional arrangements, technology selection, capacity planning, Cost/capacity relationship etc.
- **Timeline: 4 months** (We reached out to them)

Feasibility study for climate resilient drainage. Contd.)

- Recommended Interventions were validated, and additional needs identified for the project
- This Study used to finalize the draft TORs for the design and supervision contract as a deliverable of the AF project
- Financial & Technical proposal for the Development of Engineering & Drainage Solutions, McKinnon's Pond Sub Watershed.

Vulnerability Impact & Adaptation Analysis in the Caribbean (VIAAC) – Local Vulnerability Analysis for Antigua & Barbuda (LVIA) by CaribSave Partnership with Funding from UNEP – ROLAC, 2015.

- Produced a Local Vulnerability Analysis through Survey & Consultation with the communities through participatory engagement, local & Expert opinion;
- Identify adaptation Options, incorporating but not limited to an emphasis on ecosystem-based adaptation.

## Social Market Resource & Demand for Low interest unsecured Loans for adaptation on the Northwest Coast.

- Designed to determine the level of Market demand for unsecured household and small business loans for adaptation
- Collected quantitative data to inform the design of the project
- Methodology drew on three approaches to data collection in Yorks, Yorks New Extension, McKinnon's, and Gambles communities within the McKinnon's watershed:
- 1. Literature review and baseline data
- 2. A survey of households and small businesses.
- 3. Community consultations/focus group discussions

Timeline 2 Months

Literature review:

#### A private sector assessment conducted by the Inter-American Development Bank (IADB) in 2013

Findings:

- access to finance was a critical challenge to private sector development
- "Given the important role played by finance in the development process, the country's poor ranking in terms of access to credit represents a significant risk to private sector development and growth... Antigua and Barbuda has attempted to fill the credit void through the establishment of a national development bank, but the credit needs of the private sector significantly outstrip the available resources."
- IADB, 2013. Private Sector Assessment of Antigua and Barbuda, p. 15. <u>http://www.caribank.org/uploads/2014/11/2014-Antigua-</u> and-Barbuda-PSAR.pdf Accessed 4 May 2016

## Focus Group Consolation within the community

- presentation of project concept
- demand and willingness to participate in Macro Loan for Adaptation at the household level.
- Presentation and identification of various Adaptation interventions etc.

#### FINDINGS OF FEASIBILITY STUDIES ON PROJECT DESIGN AND DEVELOPMENT

- Source of concrete evidence required to support justify project development
- □ Identifies nature of vulnerabilities
- Provides recommendations on what needs to be done which allows for concrete components & Activities to implement the project.

Example:

- The need for Hydrological Assessment, Flood Modeling to inform Drainage design interventions for the 3 KM of waterway that traverses the communities Component 1.
- Micro-Loans for Adaptation at the household level with emphasis on woman headed households Component 2.
- Community Grants, contracts for sustaining interventions and community engagement plan Component 3.

### **Consultants:**

- Environmental & Social /Gender Impact Assessment/ ESMP
- Timeline: 3 Months
- 6 days of field visits,
- Two community consultations
- Literature review
- Meetings with technical staff of the department
- Unstructured interviews with key informants

# Leveraging Regional and National funded programs / studies:

 CaribSave Vulnerability Impact and Adaptation Analysis in the Caribbean (VIAAC): Local Vulnerability Analysis for Antigua & Barbuds with UNDP-ROLAC funding

![](_page_43_Figure_1.jpeg)

Figure 17. Diagram of the NIE's project management structure

### **Consultants:**

- Environmental & Social /Gender Impact Assessment/ ESMP
- Timeline: 3 Months
- 6 days of field visits,
- Two community consultations
- Literature review
- Meetings with technical staff of the department
- Unstructured interviews with key informants

# Leveraging Regional and National funded programs / studies:

 CaribSave Vulnerability Impact and Adaptation Analysis in the Caribbean (VIAAC): Local Vulnerability Analysis for Antigua & Barbuds with UNDP-ROLAC funding

## Inhouse staff & interns:

- Social Market Research on Demand for Low interest unsecured Loans for Adaptation on the Northwest Coast of Antigua.
- Timeline: Two Months

## Literature review :

 A private sector assessment conducted by the Inter-American Development Bank (IADB) in 2013 found that access to finance was a critical challenge to private sector development

#### MAIN CHALLENGES IN DATA GATHERING

Most activities were community based.

- Willingness of the public to provide information. This against a background of giving info but not getting tangible output.
- Fear of being taxed particularly re the loans process.

Institutional level.

Most agencies were forth coming As they are members of out Technical Advisory Committee (TAC)

## **Thank You**

Department of the Environment Ministry of Health and the Environment Botanical Gardens, Factory Road St. John's, Antigua +1.268.462.4625 antiguaenvironmentdivision@gmail.com

Photo credit: Andre Philip

![](_page_48_Picture_0.jpeg)

NIE experience with project formulation grant (PFG) and feasibility study – Arcadia Francisco, Project Coordinator, Rafael Beriguete, Project Consultant, Pedro Zuccarini, M&E Project Consultant, Dominican Institute of Integral Development (IDDI), Dominican Republic

![](_page_49_Picture_0.jpeg)

## Enhancing Climate Resilience in San Cristobal Province, Dominican Republic –

Integrated Water Resources Management and Rural Development Program

![](_page_49_Picture_3.jpeg)

![](_page_49_Picture_4.jpeg)

![](_page_49_Picture_5.jpeg)

![](_page_49_Picture_6.jpeg)

#### **Project Development Process**

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![](_page_50_Picture_2.jpeg)

#### Enviromental and Social Management System Plan

The ESMP was developed by conducting studies and stakeholder consultations, through a consultancy conducted at the request of IDDI to Brightline Institute, Inc.

After several consultations and technical reviews, environmental, social and gender considerations were reinforced for Components 1 and 2 and were integrated into the project design.

This approach was also important to maintain the sustainability of the outputs of the components itself.

Participation of technical staff of the Ministry of Environment, INAPA and IDDI for the collection of information in the field.

Consultation meeting with the participation of 40 community representatives from the intervention areas

![](_page_51_Picture_0.jpeg)

![](_page_51_Picture_1.jpeg)

#### Challenges

- The communities do not identify Climate Change as a risk factor, their "needs" approach is oriented to routine problems (unemployment, public services failure, roads, etc.).
- There are no reliable or updated technical studies in the intervention areas.
- Local governments lacks resources (technical and economic) to address the local problem.

#### **Strategies (Inception Phase)**

- Workshops implementation to identify needs and knowledge of Climate Change with project beneficiaries to guide the problems caused by climate variability.
- Develop a baseline that allows to define the indicators and make an exhaustive analysis of the local problem.
- Incorporate and support local authorities in information collection processes.
- Implement mechanisms for technical information to be used for the establishment of public policies in local governments.

![](_page_52_Picture_0.jpeg)

![](_page_52_Picture_1.jpeg)

#### Proyecto: Aumentando la capacidad de Resiliencia Climática en la Prov. de San Cristobal. HOJA DE RUTA

![](_page_52_Figure_3.jpeg)

#### Lessons Learned

![](_page_53_Picture_1.jpeg)

![](_page_53_Picture_2.jpeg)

The experience and knowledge of the local reality of the communities must be taken into account and valued, which allows us to understand "their vision of the problem", and orient the objectives for the satisfaction of their needs, in accordance with the ToR of the project.

The participation and integration of local authorities is essential to ensure the sustainability of the project. It must be part of a comprehensive plan that ensures that adaptation measures can be integrated into the public policies that local governments will implement.

![](_page_53_Picture_5.jpeg)

![](_page_53_Picture_6.jpeg)

Technical personnel should be involved in the process of consultation and analysis of needs in the communities, for a better identification of adaptation measures and jointly establish action plans with the beneficiaries.

#### Lessons Learned

![](_page_54_Picture_1.jpeg)

It is important to align the objectives of National and International initiatives (National Adaptation Plan for Climate Change RD), SDG's, and Adaptation Fund guidelines, to contribute to the development of adaptation measures that bring tangible changes in the intervention communities.

![](_page_54_Picture_3.jpeg)

![](_page_54_Picture_4.jpeg)

![](_page_54_Picture_5.jpeg)

![](_page_55_Picture_0.jpeg)

"Resilience is that ineffable quality that allows some people to be knocked down by life and come back stronger than ever. Rather than letting failure overcome them and drain their resolve, they find a way to rise from the ashes."

![](_page_55_Picture_2.jpeg)

# Dialogue and exchange: Questions submitted by NIEs at webinar registration

- 1) How do we measure a community's climate resiliency? Are there examples of assessment tools used in the past that worked?
- 2) Regarding evidence-based interventions: have there been any valuable experiences on the application of behavioral science (specifically behavioral economics) to sustained local-level resilience?
- 3) How to elaborate proper TORs? What is important to consider?
- 4) Identification of in-house mechanisms which can be carried out, at a low cost, to determine the vulnerability and feasibility of proposed projects/programs.
- 5) Do you know of cost-efficient graywater re-use systems?

## Announcements

• Please complete webinar evaluation

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#### ADAPTATION FUND THE END Readiness Programme for Climate Finance

Webinar #9: Evidence based interventions – Assessing vulnerability and feasibility for sustained local-level resilience: experiences and lessons learned from Adaptation Fund 24 October 2019 9:00 – 10:30am EDT

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