Report of the Vulnerability and Capacity Assessment Training Workshop in Grenada

under the

Regional Implementation of the Vulnerability and Capacity Assessment for the Climate Change Adaptation in the Eastern Caribbean Fisheries Sector Project (CC4FISH)

March 9-10, 2020

Fisheries Division Conference Room, St. George's, Grenada

1. Introduction

The ***Climate Change Adaptation in the Eastern Caribbean Fisheries Sector Project (CC4FISH)*** is being implemented by the Food and Agriculture Organization of the United Nations (FAO)/Western Central Atlantic Fishery Commission (WECAFC) and the national fisheries authorities from the seven project countries, Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, Saint Lucia, St. Vincent and the Grenadines and Trinidad and Tobago (T&T), from 2017-2020. It aims to increase resilience and reduce vulnerability to climate change impacts in the Eastern Caribbean fisheries sector through introduction of adaptation measures in fisheries management and capacity building of fisherfolk and aquaculturists. It is funded by the Global Environment Facility.

The Caribbean Natural Resources Institute (CANARI) has been contracted by FAO to undertake the regional implementation of a Vulnerability and Capacity Assessment (VCA) in coastal and fishing communities under CC4FISH. This work involves implementation of VCAs in 14 coastal and fishing communities across four target countries, Grenada, St. Kitts and Nevis, St. Vincent and the Grenadines and T&T, from October 2019 to November 2020. It directly contributes to Component 1 of CC4FISH, which aims to increase understanding and awareness of the climate change impacts and vulnerabilities for effective adaptation and resilience building in the Eastern Caribbean fisheries sector.

As a key first step, CANARI is supporting the establishment of local field teams and providing training on planning and implementing VCAs in each of the four target countries. In Grenada, this training will support VCAs in three coastal and fishing communities, Grenville and Gouyave in Grenada and L'Esterre in Carriacou. This training builds on CANARI's previous work to develop a regional VCA framework and toolkit under phase 1 activities from September 2017 to September 2018 under CC4FISH[1].

This report provides an overview of the VCA training for the local field team in Grenada, with a focus on specific VCA tools selected for the three target communities under the project. CANARI facilitated the workshop, which was held at Fisheries Division Conference Room, St. George's, Grenada on March 9-10, 2020. This report includes an overview of the objectives and methodology and presents the main findings and recommendations of the training workshop to guide the implementation of VCAs in coastal and fishing communities in Grenada.

2. Participants

The target participants for the workshop included CC4FISH project personnel and the local field team for conducting VCAs in the three target communities. Key government, civil society and private sector organisations involved in fisheries, climate change adaptation and disaster risk management in the country that can support future VCAs were also targeted for capacity building, including:

- the Fisheries Division as the national fisheries authority in Grenada;

[1] To guide the regional implementation of the VCA, a regional framework and toolkit have been drafted to enable a harmonised approach to data collection at the community level and inform adaptation measures for the fisheries sector. The approach and tools are outlined in the regional framework and toolkit. For more information on phase 1, see: https://www.canari.org/vca-for-cc4fish

- key government agencies involved in adaptation, disaster risk management and natural resource management such as the Ministry of Agriculture and Lands; and
- civil society organisations including fisherfolk organisations based in the target communities, Sustainable Grenadines Inc. (SusGren) and The Nature Conservancy.

A total of 11 participants attended along with two members from the CANARI team. See Appendix 1 for the list of participants.

3. Workshop goal and objectives

The goal of the workshop was to conduct in-country training with the field team in Grenada to support the design and implementation of VCAs in the three target coastal and fishing communities – Grenville and Gouyave in Grenada and L'Esterre in Carriacou - under CC4FISH.

The specific objectives of the workshop were to build capacity and support participants to:

- understand vulnerability and the role of VCAs in informing climate change adaptation;
- understand the VCA process, including how to effectively evaluate and select the appropriate VCA tools from the toolkit for conducting field assessments; and
- apply selected VCA tools to capture local knowledge and perspectives on climate change impacts, vulnerabilities and priorities for adaptation at the community level, focused on areas critical to the fisheries sector.

See Appendix 2 for the detailed workshop agenda and objectives.

4. Methodology

The workshop was designed to be interactive and enable capacity building of key stakeholders to conduct local-level VCAs in Grenada, including from government, civil society and the private sector working on climate change, disaster risk management and fisheries governance and management. The workshop included short facilitator presentations/overviews of key topics, small and large group scenario exercises and plenary discussions. The workshop also included a site visit to Melville St. fish market and landing site in St. George's, Grenada for knowledge sharing and active learning by participants on applying the selected VCA tools.

5. Discussion and findings

An overview of the CC4FISH project was shared by CANARI Senior Technical Officer, Dr. Ainka Granderson, followed by a brief overview of the project component '*Regional implementation of a VCA in coastal and fishing communities'* under CC4FISH, to give context for further stakeholder discussion and inputs as part of the VCA training workshop.

5.1 Introduction to vulnerability and VCA concepts

CANARI provided an overview on the key concepts related to climate change impacts and vulnerability as well as the VCA process including the approach as a framework for analysis. Key definitions and concepts included:

- vulnerability and its components – exposure, sensitivity and adaptive capacity (see Figure 1)
- VCA as an established approach to assessing, analysing and addressing the major risks affecting communities using a participatory process that allows stakeholders to identify their own vulnerabilities, priorities and what they can do to address these issues.

Vulnerability is determined by the potential impacts due to **exposure** to climatic changes and **sensitivity** of the system to these changes, as well as the **adaptive capacity** to address the potential impacts of climatic changes.	Exposure - the nature and degree to which system is exposed to significant climatic changes.
	Sensitivity - the degree to which the system is affected negatively or positively by climatic changes.
	Adaptive capacity – the ability of the system to adjust to climatic changes to moderate damage, take advantage of opportunities or cope with the consequences

Figure 1: Defining climate vulnerability and key components: exposure, sensitivity and adaptive capacity.

This overview was supported by a group exercise on the definition of vulnerability and all its components. Participants were briefed on the definitions highlighted in Figure 1, then asked to rank their personal/household vulnerability for each component using a color-coded system. (Blue = Low, Yellow = Medium, Orange = High). This was a relatable way to communicate the concepts of vulnerability and introduce the VCA approach.

Figure 2 & 3: Understanding the concept of climate vulnerability and key components: exposure, sensitivity and adaptive capacity. Figure 2 shows participants perceived risk rankings for the exercise

5.2 Overview of VCA process and toolkit

Participants were introduced to the process for designing and implementing local-level VCAs. This included an overview of the three main phases: the planning phase, the implementation phase and the monitoring and evaluation phase (see Box 1).

In terms of the process, a key area discussed by participants was the planning stage, especially the importance of identification and engagement of key stakeholders within the target communities as they are critical in facilitating introductions within the community and ensuring community members are open and willing to participate in discussions and exercises. This

community engagement is critical to the VCA process and its success. Other key areas mentioned by participants was for VCAs to link to concrete actions at community level, to capture impacts beyond climate change in vulnerability assessments as interconnected issues, and to consider communication methods on how results of VCAs are to be effectively shared with the target communities and other key stakeholders.

Box 1: What does a VCA typically involve?

Planning phase

1. Define the need and main objective(s) for the VCA (guided by fisheries and aquaculture plans and policies)
2. Conduct scoping to understand the context and drivers of vulnerability
3. Identify and engage the key stakeholders to be involved in VCA
4. Select a framework of analysis for the VCA
5. Identify required information and methods for VCA

Implementation phase

6. Field testing and training of team in VCA methods and tools
7. Conduct the VCA
8. Analyse information from the VCA within the selected framework of analysis
9. Report and communicate VCA findings to support adaptation planning and actions

Monitoring, evaluation and review phase

10. Ongoing monitoring and review of VCA process and findings

(Source: adapted from IFRC 2014 and FAO 2013)

CANARI then provided an overview of the VCA toolkit, which was developed in Phase 1 of the CC4FISH VCA work. The VCA toolkit provides a practical step-by-step guide for conducting VCAs in coastal and fishing communities and includes a recommended process, key steps and a suite of tools at rapid, intermediate and in-depth levels of complexity. The toolkit builds on existing and established tools and toolkits such as the International Federation of Red Cross and Red Crescent Societies VCA tools and guidelines, Global Coral Reef Monitoring Network Biophysical Guidelines[2] and SocMon Manual[3], and CANARI's 2017 Implementing Climate Change Action Toolkit[4] that is targeted at Caribbean CSOs.

The toolkit includes a suite of 15 tools (see Figure 4). These range from simple tools that can be used for rapid assessments that are low cost and require minimal time and expertise to plan and implement (e.g. rapid community mapping or historical timeline of hazards) to more complex

[2] GCRMN-Caribbean Guidelines For Coral Reef Biophysical Monitoring http://www.car-spaw-rac.org/IMG/pdf/gcrmn-caribbean_guidelines.unep_depi_car_wg38.inf17-en.pdf

[3]Socioeconomic monitoring guidelines for coastal managers in the Caribbean: Socmon Caribbean. Bunce, L. and B. Pomeroy, 2003. World Commission on Protected Areas and Australian Institute of Marine Science, Australia. http://www.socmon.org/regions.aspx?region=Caribbean&centerpoint=17.5,-72.0&zoomlevel=5

[4] Implementing Climate Change Action: A Toolkit for Caribbean Civil Society Organisations http://www.canari.org/wpdm-package/climate-actt-toolkit

tools for in-depth assessments that require significant time, funding and specialised training and facilitation skills (e.g. participatory three-dimensional modelling or value chain analysis).

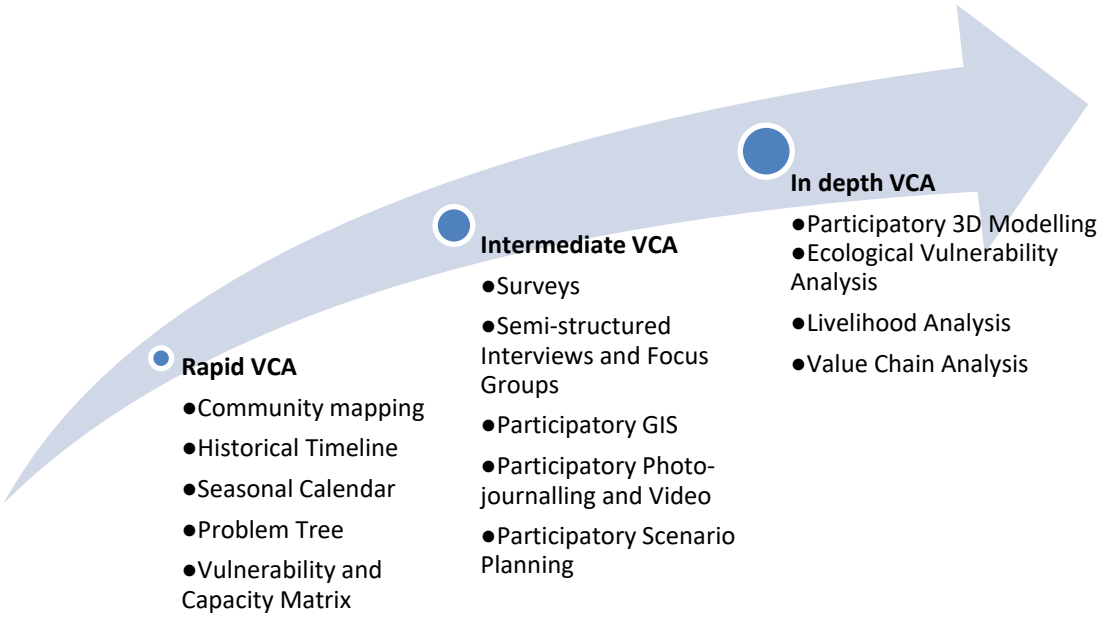


Figure 4: The range and types of VCA tools

5.3 Understanding and selecting VCA tools

Participants were engaged in reviewing the range of tools in the toolkit and applying them to various community scenarios to enable more in-depth thinking and analysis of the VCA tools and how each may be applied in different contexts depending on the goal and available resources (e.g. time, finances, capacity). This scenario exercise sought to build understanding of the process for selection of appropriate VCA tools using the criteria in Box 2.

***Box 2: Criteria for assessing VCA tools*:**

- **Appropriateness** – is tool appropriate for the local fisheries context?
- **Coverage** – does tool capture information on different aspects of vulnerability (biophysical, socioeconomic, institutional) at community level?
- **Feasibility** – is tool feasible to implement given time, funding and other resources available for VCA?
- **Flexibility** – can tool be tailored to different situations or combined with other VCA tools?
- **Community participation** – does tool allow for engagement of various community stakeholders including marginalised groups in the VCA?
- **Policy relevance** – can tool feed into fisheries management plans, policies or related assessments to inform adaptation in the fisheries sector?

Generally, participants felt the exercise helped them to better understand how the tools were useful for conducting assessments in various coastal and fishing communities and found the

selection criteria assisted in determining the most appropriate VCA tools based on available time, resources and scenario conditions.

Participants made the following recommendations based on the exercise:

- Proper scoping of communities is a crucial planning phase activity prior to VCA tool selection.
- The objective of the assessment is also important to keep in mind when selecting VCA tools.
- Visual tools such as photo journalling and participatory mapping double as capturing information and as communication products.
- Budget and technical expertise are important factors in determining the feasibility of various VCA tools, given that a tool's effectiveness is reliant on its execution.

See Appendix 4 for various scenarios and results for each small group in selecting VCA tools, and the slides in Appendix 3.


Figures 5 and 6: Participants engaged in group discussions for review and selection of VCA tools using application of criteria on community scenarios

5.4 Applying selected VCA Tools in Grenada Communities

It was noted that the scenario exercise provided insight into the methodology that CANARI employed to select the VCA tools for the three target communities in Grenada. This process included a scoping analysis for each of the three target communities in Grenada in order to provide a detailed understanding of the local context and fisheries sector activities to guide the selection of three tools for the VCAs.

The selected VCA tools included:

- semi-structured interviews
- rapid community mapping
- vulnerability and capacity matrix
- value chain analysis

Table 1 gives a brief synopsis of each of the selected tools. Detailed presentations on tools can be found in Appendix 3.

Table 1: Selected tools for VCAs in Grenada

Semi structured interviews
Semi-structured interviews are used mainly to collect qualitative data and to allow for more in-depth exploration and discussion of people's perceptions of the economic, political and socio-cultural factors shaping vulnerability to climate change. They contain open-ended questions, which allow for dialogue, both with the interviewer. The interviewer is encouraged to probe responses in order to get to the root causes of the vulnerabilities and to better understand the types of adaptive capacity available. Based on respondents' answers to one question, the interviewer can introduce additional probing questions or diverge from the script. Semi-structured interviews and focus groups are best used to gain insights from key stakeholders with specialised knowledge or needs within a community or its fishery sector. The flexible format also allows for integration of other vulnerability assessment methods, including mapping, participatory photo-journalling and video and livelihood analysis. Participants were engaged in "mock interviews" in pairs in order to gain insight into the techniques used for semi-structured interviews as well as to familiarise themselves with the interview questions.
Rapid community mapping
Rapid community mapping can be used to gather and interpret spatial or geographic information about vulnerability to climate change. This tool can be used to identify and document locations of key areas impacted by, or at risk from climate hazards, including important infrastructure, livelihood activities and natural resources in the community. It can also be used to identify key resources and services that enable adaptation to the impacts of climate hazards. Community mapping can be a rapid exercise where, for example, participants draw a rough map on a sheet of paper, or it could be a detailed exercise where carefully scaled and drawn maps are used. To support execution of the vulnerability and capacity matrix, rapid community mapping will be utilised in Grenada to facilitate discussion and assist in the identification of hazards, assets and vulnerabilities. The participants were briefed on the process of community mapping by creating a map of the Melville Street fish market and landing site in St. George's, Grenada, including the following steps: 1. Planning the community map 2. Identify what makes sense to map and why 3. Creating the map
Vulnerability and capacity matrix
A vulnerability and capacity matrix is a useful participatory tool to highlight differences in the level of vulnerability and capacity to adapt to climatic and other hazards across different sectors and/or social groups in a coastal or fishing community. It aims to determine the hazards that have the most serious impact on the community; determine which groups within the community, sectors, resources or livelihoods are most vulnerable; and identify coping strategies to address hazards. This information is then useful to identify and prioritise possible adaptation options. To support execution of the vulnerability and capacity matrix, rapid community mapping will be utilised in Grenada to facilitate discussion and assist in the identification of hazards, various resources and assets, and vulnerabilities to include in the matrix. Participants were briefed on the process of creating and preparing a vulnerability and capacity matrix using a hypothetical exercise focused on the capital of Grenada, St. George's, including the following steps: 1. Identifying hazards of interest to the area

2. Determining a scoring/ranking system for assessing the potential impact (based on exposure and sensitivity) of the hazards
3. Assessing the potential impact of the identified hazards using the scoring/ranking system
4. Identifying current and potential coping/adaptation strategies for the hazards

Value chain analysis

Value chain analysis can be used to gain an in-depth understanding of the entire process involved in the community or a specific fisheries-based enterprise delivering a product or service and assessing strategies that could be taken to reduce costs and increase the value of the product or service. Value chain analysis also provides an opportunity to analyse how climate change affects an enterprise, including the vulnerabilities of different parts of the value chain, and determine adaptation actions that it could undertake. The elements of vulnerability - exposure, sensitivity and adaptive capacity - can be assessed at each step in the value chain. For example, instead of transporting fish to a facility 10 km away to be canned, fisherfolk might instead decide to do fish processing and canning near where the fish are harvested to reduce fuel costs and risks from floods and landslides disrupting transport of fish.

Due to need for a small business development expert to facilitate the value chain analysis, the participants were briefed on the tool and concepts, but will not be expected to execute this tool in the target communities.

5.5 Practical application of VCA tools

On the second day of the workshop, participants were engaged in field activities to enable "learning by doing" and build their practical experience in using the VCA tools.

Site visit to Melville Street fish market and landing site

A site visit was facilitated by CANARI and the Fisheries Division to the Melville Street fish market and landing site in St. George's, Grenada to allow participants to conduct field observations to feed into the rapid community mapping and vulnerability and capacity matrix. The site visit also allowed participants to better understand and gain insights into the local context via informal discussions with the fishers and vendors using the fish market and landing site. The site visit commenced with a brief introduction by Fisheries Division, before participants proceeded to the fish market and landings site in two small groups to conduct field observation.

Figures 7 and 8: Participants in the field during an introductory brief to the site by Mr. Calliste of Fisheries Division and during a group discussion with one of the Melville St. fishermen during the site visit to the landing site, St. George's, Grenada

Rapid community mapping

Participants were guided through the process of rapid community mapping as a VCA tool. Participants were refreshed on the purpose of the exercise following introduction to the tool during Day 1 of the training. They were facilitated through the process of identifying areas of interest that are or will be affected by climate change at the site such as critical facilities and resources including major buildings, infrastructure such as road, ports, jetties, the fish landing site, buildings, etc.

Participants then worked together to map key assets and resources, including buildings, other physical infrastructure and natural resources, and observed hazards in and around the Melville Street fish market and landing site. They also created a legend for the map. The aim was to understand the layout of the community, key coastal or fisheries related features, resources and how these may be affected by climate hazards. Participants drew on their field observations during the site visit to map the surrounding areas. Through this exercise, participants were provided with practical experience in using the rapid community mapping tool.

Figures 9 and 10: Participants map key features and vulnerabilities observed in Melville St. fish market and landing site, St. George's, Grenada as part of a rapid community mapping exercise

Table 2 summarises the findings, including key hazards and assets/resources, identified by the participants based on their field observations and rapid community mapping for Melville Street fish market and landing site and its immediate surrounding areas.

Table 2: Key hazards, assets and capacities identified from field observations and during rapid community mapping exercise at Melville St. fish market and fish landing site

Key Hazards	Key Assets
• hurricane and storm surge • coastal erosion • pollution (e.g. sewage, wastewater, silt/concrete dumping) • warmer seas (affecting fish distribution and coral reefs via coral bleaching) • higher winds	• sea wall for coastal protection (to reduce energy of the waves and mitigate against erosion of land) • fish market • fish landing site • water taxi jetty • main and secondary roads

• theft of engines • health and safety hazards (handling of fish, slippery tiles, pests e.g. flies, leaks from nitrogen-based cold storage) • illegal vending • fires (affecting built infrastructure especially old, dilapidated buildings) • earthquake (infrastructure located on reclaimed land, including fish landing site and market, susceptible to earthquakes) • traffic congestion • radiation from radio/telecommunication tower	• bus terminal • beach • coral reef • seagrass beds • tree cover, which provides flood protection

Vulnerability and capacity matrix

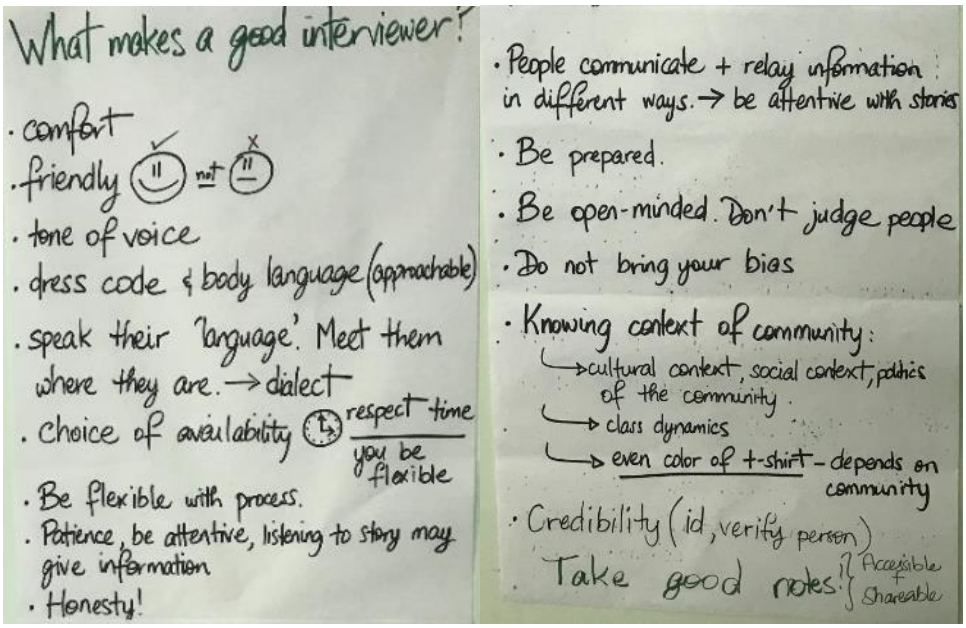
Focusing on the Melville Street fish market and landing site area, participants worked in groups to identify specific climate-related hazards and vulnerabilities affecting different resources within the area based on their site visit and the rapid community mapping. Each group focused on one of the following resource types: built infrastructure, natural resources and fisheries-related assets. A ranking system for the hazards was developed from 1 being the lowest to 3 being the highest impact. Each group then identified existing and potential coping and adaptation strategies for addressing the highest impact risks affecting the various resources in the Melville Street area. See Appendix 5 for the vulnerability and capacity matrix template and examples of matrices developed by the three small groups.

Following the exercise, a debrief session was done on the rapid community mapping and vulnerability and capacity matrix. This debrief covered their experience in creating the map and feeding the information recorded into the matrix. Participants provided the following insights and recommendations based on their practical application of these two VCA tools:

- Can assess a variety of community resources and assets in conducting the vulnerability and capacity matrix e.g. livelihoods, various economic sectors, specific populations (elderly over 60 years, youth under 18 years, men and women), cultural heritage, based on the target communities' interests.
- To ensure priorities for action are identified, the scoring/ranking criteria needs to be clear. Discuss the criteria before completing the matrix to ensure it is full understood.
- Facilitate workshops to implement these tools at a time of day that would be convenient for the community, recognising time and other constraints. E.g. fisherfolk typically out of sea during certain times of the day.
- Valuable to include youth, teaches, women's groups and other stakeholders not just fisherfolk in these activities to get the whole community's perspectives and needs.
- Be mindful to use simple language to explain the VCA tools to the community and avoid technical/academic language.

Semi structured interviews and focus groups

To allow participants to gain experience in conducting semi-structured interviews, "mock interviews" were conducted. Participants were split into pairs with one being the interviewee and the other being the interviewer. They used the draft interview questions prepared by CANARI to familiarise themselves with the interview questions and provide feedback on any edits needed to better tailor for the local context. Before conducting the "mock interviews", participants reviewed the characteristics of a good interviewer that were identified in Day 1 during the introductory session on semi-structured interviews (see Figures 7 and 8 for characteristics identified by the participants).



Figures 7 and 8: Participants input on what are characteristics of a good interviewer

Following the exercise, a debrief session was done on semi structured interviews and focus groups as a VCA tool. This debrief covered their experience in doing the mock interviews in pairs and the information they were able to record. This debrief revealed the following:

- Consider how to simply or improvise language for the interview questions depending on the audience. No need to strictly use language of questions word for word. For example, younger interviewees may be familiar and aware of terms like climate change, while older interviewees may not be familiar and have to be given examples such as more frequent and extreme storms and hurricanes.
- Listening to interviewees' stories will reveal information and offer perspectives.
- Number of people to be interviewed dependent on size of community and list of who may be key informants therein. This is unlikely to be more than 15-25 people in small coastal and fishing communities of Grenada.
- Data provided from semi-structured interviews will not be standardised and easily comparable like in structured interviews/surveys, but it will provide rich insights into people's perceptions, attitudes, networks/relationships and local institutions that cannot be easily captured otherwise.

5.6 Communicating the results of the VCAs and action planning

This session highlighted key steps to consider once VCAs were completed. Firstly, results will need to be collated and organised in order to facilitate proper analysis and provide an overall picture of vulnerability within each target community. Secondly, communication products and pathways will need to be identified for sharing the results of the VCAs and effectively using these results for action planning. In identifying communication products, the following questions need to be considered:

- Who are the target audience and end users for the VCA findings and outputs?
- What are the key findings and messages from the VCA?
- How and in what formats should the findings of the VCA be communicated for adaptation planning and actions at the community level?
- How can the VCA findings feed into and influence decisions and policies at sectoral, national and regional levels? What are the appropriate communication and engagement strategies and pathways?

Potential communication products that could be developed to share results were discussed in plenary and included summary reports, maps, posters and other ICT products for the target communities. A critical point was the benefit in relating the range of communication and other outputs to stakeholder decision-making, public awareness and further assessments.

Action planning was then discussed, highlighting how results should be linked to the development of local adaptation plans and actions to reduce vulnerabilities and build resilience in each target community. Findings of the VCAs can be used to prioritise actions based on the main climate related hazards affecting a community and the areas or groups most vulnerable. These priorities can inform the specific actions taken to reduce vulnerability and adapt to climate change and help identify and justify where to invest limited resources. The VCA may also highlight opportunities and challenges for adaptation within the local context and allow adaptation actions to be tailored to suit the context.

See slides in Appendix 3.

6. Workshop evaluation and next steps

In closing, the workshop objectives and what had been accomplished in the workshop over the two days were reviewed with participants. An outline of the next steps for the project and VCA work was also shared. This included producing the workshop report, refining the survey questions and developing a workplan and schedule for conducting VCA fieldwork in the three target communities in Grenada, based on stakeholder inputs at the training workshop.

A written workshop evaluation was then undertaken. Participants highlighted the following in their evaluations:

<u>Aspects they enjoyed or found useful</u>

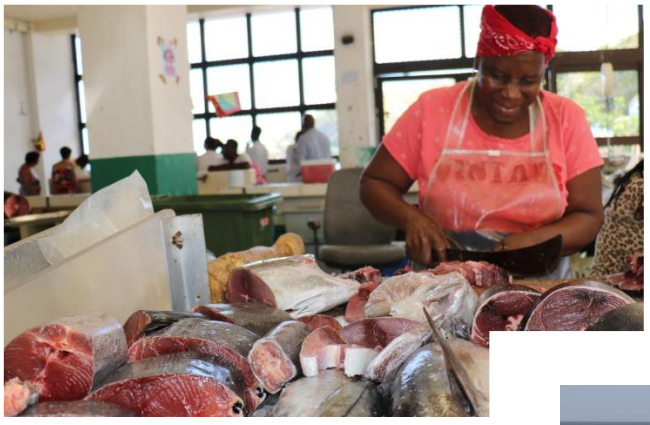
- Very informative and interactive with relevant information
- Learning was fun and made easier

- Practical application of the tools
- Material provided (e.g. tools from toolkit and other handouts) with clear step-by-step information on how to use the tools
- Group exercises and discussions were interactive and informal in nature
- There was effective communication between the facilitators and the workshop participants for peer sharing and discussion
- Practical exercises helped to reinforce the concepts
- Information provided was very up to date and not outdated which I loved.

<u>Areas for improvement</u>

- More participants should have been engaged, especially from the fisheries sector and relevant groups
- Possible use of videos to support further learning, as the training and tools have been used elsewhere

The full evaluation results can be found in Appendix 6.



Appendix 1: Participants List

First and Last Name	Organisation	Position/Title	Telephone	Email Address
Joseph Noel	Ministry of Agriculture and Lands	Land use officer	415-1980	Josephnoel_2010@hotmail.com
Kristy Shortte	Sustainable Grenadines	Programmes officer	784-434-1299	kristyshortte@yahoo.com
Brian Whytte	CRF Carriacou fisherfolk	Project coordinator	415-1503/459-7312	cffcarriacou@gmail.com
Allena Joseph	The Nature Conservancy	MSP specialist	535- 4353	Allena.joseph@tnc.org
Amrita Mahabir	The Nature Conservancy	Conservation community specialist	410 8090	Amrita.mahabir@tnc.org
Krisma Moore	FAO	CC4FISH National Project Coordinator	414 5578	Krisma.moore@fao.org
Orlando Harvey	Fisheries Division	MPA Coordinator	404 7026	landokeri@yahoo.com
Francis Calliste	Fisheries Division	Fisheries Officer	417 2908	Tobex00@hotmail.com
Tylon Joseph	Gouyave Fisherman Co-operative Society Ltd.	Member	421 2138	Tylon.joseph@outlook.com
Shania Findley	RainbowFins / Grenada Education and Development Programme (GRENED)	Managers assistant	416 0914	Shaniafindley2000@gmail.com
Jenelle Francique	Fisheries Grenville	Market Clerk	415-4642	Marthafranc95@gmail.com
Ainka Granderson	CANARI	Senior Technical Officer	(868)626-6062	ainka@canari.org
Deanna Albert	CANARI	Technical Officer	(868)626-6062	deanna@canari.org

Appendix 2: Agenda

REGIONAL IMPLEMENTATION OF THE VULNERABILITY AND CAPACITY ASSESSMENT FOR THE CLIMATE CHANGE ADAPTATION IN THE EASTERN CARIBBEAN FISHERIES SECTOR PROJECT (CC4FISH)

Vulnerability and Capacity Assessment Training Workshop for Grenada

March 9-10, 2020
Fisheries Division Conference Room, St. George's, Grenada

Provisional Agenda

Workshop overview

The Caribbean Natural Resources Institute (CANARI) is undertaking the regional implementation of a Vulnerability and Capacity Assessment (VCA) in coastal and fishing communities under the ***Climate Change Adaptation in the Fisheries Sector of the Eastern Caribbean Project (CC4FISH)***. CC4FISH aims to increase resilience and reduce vulnerability to climate change impacts in the Eastern Caribbean fisheries sector through introduction of adaptation measures in fisheries management and capacity building of fisherfolk and aquaculture farmers. CC4FISH is being implemented from 2017-2020 by the Food and Agriculture Organization of the United Nations (FAO)/ Western Central Atlantic Fishery Commission (WECAFC) and national fisheries authorities in the seven project countries, Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, Saint Lucia, St. Vincent and the Grenadines and Trinidad and Tobago. CC4FISH is funded by the Global Environment Facility.

CANARI's work aims to improve understanding of climate change impacts and vulnerabilities for effective adaptation in the Eastern Caribbean fisheries sector through implementation of VCAs in 14 coastal and fishing communities across four target countries, Grenada, St. Kitts and Nevis, St. Vincent and the Grenadines and Trinidad and Tobago. This VCA work is being implemented from October 2019 to November 2020 in collaboration with FAO and national fisheries authorities in the target countries.

As a key first step, CANARI is supporting the establishment of local field teams and providing training on planning and implementing VCAs in each of the four target countries. This training builds on CANARI's previous work to develop a regional VCA framework and toolkit under phase 1 activities from September 2017 to September 2018 under CC4FISH.

Workshop goal and objectives

The goal of the workshop is to provide in-country training to the field team for Grenada on the design and implementation of local level VCAs. This training will support fieldwork to conduct

VCAs in three target coastal and fishing communities – Gouyave and Grenville in Grenada and L'Esterre in Carriacou – and in the future.

The specific objectives of the workshop are to build capacity and support participants to:

- understand what is vulnerability and the role of VCAs in informing climate change adaptation;
- understand the VCA process, including how to effectively evaluate and select appropriate VCA tools for conducting field assessments; and
- apply select VCA tools to capture local knowledge and perspectives on climate change impacts, vulnerabilities and priorities for adaptation at the community level, focusing on areas critical to the fisheries sector.

Provisional Workshop Agenda

Monday 9 March, 2020	
8:30 am	Registration of participants
9:00 am	Opening remarks and welcome Overview of the project and workshop objectives Introductions and icebreaker
9:30am	Introduction to vulnerability and Vulnerability and Capacity Assessment (VCA) concepts Interactive exercise-Understanding vulnerability
10:15 am	**Snack break**
10:45 am	Overview of the VCA toolkit Review of VCA tools Interactive scenario exercise – VCA process and tools
12:15 pm	**Lunch**
1:15 pm	Applying VCA tools in Grenada
3:00 pm	Next steps - brief on Day 2 field trip Wrap up
3:30 pm	End of Day 1

Tuesday 10 March, 2020	
8:30 am	Registration of participants
9:00 am	Welcome and Recap of Day 1 activities Overview of Day 2 activities
9:30 am	Field trip
11:00 am	Applying VCA tool: Community mapping
12:00 pm	**Lunch**
1:00 pm	Applying VCA tool: Vulnerability and capacity matrix
2:00 pm	De-brief of field trip and VCA tools
2:15 pm	Applying VCA tool: Semi-structured interviews
3:00 pm	Communicating VCA results and action planning
3:20 pm	Workshop evaluation Wrap up and next steps
3:30 pm	End of Workshop

Appendix 3: Workshop Presentations and materials

1. Overview: Introduction to vulnerability and VCA concepts
2. Overview of the VCA toolkit for VCA in coastal and fishing communities in the Eastern Caribbean
3. Applying VCA tools in Trinidad and Tobago (including de-brief session slides)
4. VCA communication of results and action planning

Appendix 4: Exercise results –
Scenario based assessment of VCA tools

SCENARIO A	***Tools chosen & selection process***
SCENARIO: *A major fish landing site for over 100 fishers located on the east coast. The town is a commercial centre and thus, not all activities are coastal - livelihood based. The coast is fringed by coral reefs, seagrass beds, and patches of wetlands. Fishing is done here mainly for offshore pelagic species. The islands' active Fish Aggregating Device (FAD) fishing vessels mostly fish from this town. It is the country's most remote fish landing site. The town's main activities include fishing, farming, crabbing and charcoal making. The town has one of the largest ports on the island, and functions as the main landing site for fisherfolk on the eastern coast, as well as a shipping facility for agricultural goods and services. There is a gas station at the fish landing site, where fisherfolk purchase fuel. There is also a Fish Market, and a small branch of the Fisheries Division. Financial support is available for fishers via a fishing industry fund, gas rebates, and via financial institutions to access loans. The community is vulnerable to coastal degradation resulting in loss of mangrove, loss of prime land and beaches and sea water intrusion. Sargassum influx has also affected the community, placing expenditure to clean up costs, and causing issues related to health, fisheries and for communities. Major commercial centres in the town are below sea level. The town is already almost at sea level and has experienced an increasing number of floods in the past 20 years. The community has been involved in assessments and projects in the past including a participatory 3D mapping exercise of the surrounding villages highlighting existing natural and cultural resources, and a project to investigate flood problems in the area.* ***BUDGET:*** $2,500 US ***TOOLS:*** Semi-structured interviews, Photo-journalling, Value chain analysis, Vulnerability and Capacity Matrix, Rapid community mapping	• Vulnerability and Capacity Matrix – as the scenario identified the community has done previous assessments; this tool can identify the priority adaptation strategies as perceived by the community to have greatest beneficial impact. • Rapid Community Mapping – Given budget, an updated 3D mapping would not be feasible; the rapid community mapping would facilitate an updated reflection of community issues. • Semi-structured interviews & focus group – Considering budget as well; semi-structured interviews & focus group was selected as a low budget tool to gather information on socio-economic aspects, along with climate hazard vulnerabilities. • The above tools were chosen taking into account the community scenario, and budget constraints. ***Recommendations*** *– N/A*
SCENARIO B	***Tools chosen & selection process***
SCENARIO: *The community has approximately 300 fisherfolk and is often called the fishing capital of its nation. It is home to one of the main fish markets of the country. Fish species of commercial importance here include tuna, marlin, sailfish, swordfish, wahoo species*	• Photo-journalling: to map changes in scenario community from hazards such as extreme weather events. • Value Chain Analysis: the community was noted as having species of commercial importance, a main fish market, and

and other pelagics. Fishers have increased the use of FAD fishing in the recent years. The fishing community is mostly concentrated in an area considered the poorer end of the town. The town has many urban characteristics and is well serviced by electricity, piped water, roads, telecommunication, and transportation. Most residents' primary and secondary livelihood source is within the fisheries and agricultural sector. Other income source sectors include government work, business. The fishing community has a clearly defined social and cultural context distinct from the rest of the town. Community is vulnerable to extreme weather events (e.g. hurricanes, storm surges) which can change the livelihood systems (economic opportunities) overnight. Storm surges and tropical storms have forced the fishing community to relocate away from the coast. Erosion of river mouth and banks has changed the coastline and there has been significant loss of beach vegetation. Build-up of sand over reefs and rocky areas contributes to reduced fish stock and negative impact on fisher livelihoods. The community has been involved in assessments and projects in the past including mapping of hazards, vulnerabilities for disasters and recommended mitigation measures. They have also been involved in research methods using: Questionnaire Surveys, Semi-Structured Interview, Focus Groups, Key Informant Interviews. ***BUDGET:*** $10,000 US ***TOOLS:*** Semi-structured interviews, Photo-journalling, Participatory GIS, Value Chain Analysis, Vulnerability and Capacity Matrix	a town with many urban characteristics so the infrastructure may support value adding to the sector's operations. • Vulnerability and Capacity Matrix: to prioritise adaptation strategies that the community thinks are most important for them. • The above tools were also chosen over Participatory GIS and Semi-Structured interviews due to potential budget constraints for P-GIS execution, and as scoping revealed interviews were already conducted in the community – they felt it would lead to community fatigue with respect to participation. ***Recommendations*** • Scoping is important to leverage information that has already been collected through, for example; as seen in this scenario, questionnaires and interviews. It is also important to avoid community fatigue with respect to assessments. (i.e. avoid duplication of efforts to conduct the same type of assessments within a short space of time, which may increase the possibility that the community is disenchanted to participate, having only just recently done so in another assessment of the same type.)
SCENARIO C	***Tools chosen & selection process***
SCENARIO: *The community is a major seine-fishing community and one of the largest fishing communities on its island. It also uses the marine area for diving, recreation and recreational fishing. The community borders a Marine Protected Area (MPA) that is biologically diverse including seagrass beds, reefs, mangroves, and great plant and animal diversity. An important bay in the community for seine fisheries is one of the major mangrove ecosystems on the island and is recognized by fishers as an important nursery area for commercially important fish species (e.g. robins, jacks, snapper, barracuda). Livelihoods depend heavily on marine environment through tourism and fishing. Fishers have to travel inland to the only gas station on the island to purchase fuel. Fisherfolk community has strong bonds within their group as they communicate frequently on an informal basis with each other. The majority of property in the*	• Vulnerability and Capacity Matrix – scenario identified several climate related hazards; the matrix would facilitate prioritisation of these by community to identify what affects them most. • Semi structured interviews & focus group – to gather information beyond climate change hazards such as social challenges (e.g. gas station distance). • Value chain analysis – livelihoods depend heavily on tourism, aside from fishing. Exploring value adding to the fisheries sector could be beneficial to community livelihoods.

community on the island is not insured. Main infrastructure such as the port, hotels and the main street along with utility infrastructure is vulnerable to flooding. The community and wider island is susceptible to drought conditions during the dry season. The community is vulnerable to coastal erosion and storm surge which leads to flooding. Flooding causes beach erosion and damage to community infrastructure. The community has been involved in assessments and projects in the past including structured surveys and a scenario projection VCA which projected approximately 99 ha. of land in the island vulnerable to flooding, including about 300 m of the Main Road along with utility infrastructure, fuel depot, land areas and recreational areas. ***BUDGET:*** $25,000 US ***TOOLS:*** Semi-structured interviews, Value Chain Analysis, Vulnerability and capacity matrix, Participatory scenario analysis, Participatory Three-Dimensional Modelling	***Recommendations*** *– N/A*

Appendix 5: Vulnerability and capacity matrix template example

CLIMATE CHANGE ADAPTATION IN THE FISHERIES SECTOR OF THE EASTERN CARIBBEAN PROJECT (CC4FISH)

Vulnerability and Capacity Assessment Training Workshop - Grenada

Vulnerability and Capacity Matrix
(Blank Template)

.....	Hazards						
Current coping/adaptation strategies?							

Vulnerability and Capacity Matrix – Exercise Results

Resource Type: Natural Resources

Natural Resources	Hazards							
	Sewage	Coastal erosion	Siltation	Storm surge	Warm seas	High winds	Reclaimed land	Hurricane storms
Coral	3	2	3	2	3	1	0	3
Seagrass	2		3	1	1	1	0	2
Trees	0	2	0	1	0	1	0	3
(Marine Life) Fish	3	2	2	1	2	1	0	3
Beach	3	3	2	3	1	0	0	2
Sea Birds	0	1	1	1	1	1	0	2
Bay ecosystem	3	3	2	3	3	2	0	2
Current coping/ adaptation strategies?	- Waste treatment facility	- Sea defence						- Habitat restoration - Energy plans

Resource Type: Infrastructure

Infrastructure	Hazards						
	Coastal erosion	Pollution	Storm Surge	Earthquake	Fires	Hurricane storms	Traffic Congestion
Boardwalk	2	1	3	3	0	0	1
Water taxi Jetty	2	2	3	3	0	0	0
Bus Terminal	1	2	2	3	1	0	3
Main road	0	3	1	3	0	1	3
Residential and Commercial buildings	0	2	2	3	3	3	1
Current coping/ adaptation strategies?		- More bins at strategic locations - Public education and clean-up campaign - Enforcement of litter abatement act - Hire/ deploy environmental wardens - Establishment of sewage treatment plant	- Breakwater - Sea - Evacuation plans/drills	- Earthquake drills - Enforcing the building codes			

Resource Type: Fisheries Sector

Fisheries	**Hazards**						
	Storm surges	Coastal erosion	Theft	Fires	Higher winds	Solid waste	Siltation/ waste water
Fishing boats	3	0	3	1	3	0	0
Engines	3	0	3	1	0	1	1
Lockers	3	2	1	2	0	0	0
Cold storage	3	2	0	2	0	0	0
Fish market	3	1	3	2	1	2	3
Fishing gears	3	0	3	1	1	3	2
Safety at sea equipment	1	0	3	0	0	0	0
Jetty	3	2	0	0	0	0	0
Current coping/ adaptation strategies?	- Early warning systems - Insurance - Education and safety and best practice sensitisation		- Improved security and enforcement - Increased lighting - Insurance - Cameras	- smoking signs - insurance			

Appendix 6: Workshop Evaluation Results

Food and Agriculture Organization of the United Nations

REGIONAL IMPLEMENTATION OF THE VULNERABILITY AND CAPACITY ASSESSMENT FOR THE CLIMATE CHANGE ADAPTATION IN THE EASTERN CARIBBEAN FISHERIES SECTOR PROJECT (CC4FISH)

Vulnerability and capacity assessment (VCA) Training Workshop

March 9-10, 2020
Fisheries Division Conference Room, St. George's, Grenada

Number of Workshop evaluation forms-10

1. **Did the workshop meet its objectives?**

   [10] Yes [0] No

2. **Did the workshop live up to your expectations?**

   [10] Yes [0] No

3. **What did you like about this workshop?**
   - Very informative. Very interactive.
   - Learning was fun. Learning was made easier
   - Material provided. Communicating of how to use the tools
   - It was interactive, relevant and informative
   - Group exercises and discussions, it's interactive and informal in nature and the practical application of the tools
   - Hands on practically
   - There was effective communication between the facilitators and the workshop personnel
   - There were a lot of exercises which helped to reinforce the concepts
   - I like that it was interactive yet educative. The information was also very up to date and not outdated which I loved
   - No comment - 1

4. **What did you dislike about this workshop?**
    - The lunch
    - Attendance and too much distracting talking during the presentation
    - Break and next time providing logistics note will be a good idea
    - Refreshments
    - Need to get water outside the room where the workshop was being held
    - I felt it was a little bit short maybe 3 days
    - The fact that it was so brief
    - No comment - 3

5. **Please indicate which sessions you found particularly useful:**
    - Field trips, applying VCA Tool-Communicating mapping, applying tool- Vulnerability and capacity material and applying VCA tool- Semi-structured interviews
    - Mapping
    - All two days
    - VCA tools
    - The tool selection or scoping session
    - Interviews with the fisherfolks, mapping and matrix
    - Community mapping and field exercise
    - The vulnerability matrix activity was very useful
    - Vulnerability and capacity matrix and the mock interview
    - I believe the Tuesday sessions were more effective because it was based on practical work which helps with remembering information

6. **How could the workshop have been improved?**
    - More participants especially from the fisheries sector
    - Possible videos since it's done before or elsewhere
    - Attendance form relevant groups
    - Day 1 which focused on the concepts etc could be condensed to a ½ session so more tool application/discussions can occur
    - More persons
    - The other tool kits could have been touched on
    - It was very good. I don't have any areas that require improvement
    - More stakeholders should be invited
    - I believe if it was longer more information could have been administered to the participants.
    - No comment - 1

7. **Please describe one method, approach or tool that you will apply from the workshop when you return to your workplace or in your community.**

- Vulnerability and capacity matrix
- Ranking hazards
- Community mapping
- Photo Journalling
- More awareness to climate change
- Using the interviewing skills gathered when engaging with the community members
- The vulnerability/ capacity matrix is the tool I will most likely add to my workplace
- Vulnerability and capacity matrix
- I believe that I could use community mapping it outlines the different areas with a visual representation so in that way you can move on to the matrix.
- No comment - 1

8. What might prevent you from applying the approaches or tools promoted in this workshop?

- Time constraints
- Familiarity with some. It is a new approach.
- Resources (finances etc.)
- Budget
- Finding time or available resources
- I do not foresee any barriers
- No comment - 4

9. Please rate the following areas of the course structure and delivery:

	Very Good	Good	Fair	Poor
Clarity of objectives	7	3		
Workshop content	7	2	1	
Materials	5	5		
Facilitation	8	2		
Relevance to your needs	5	4	1	

Any additional comments on the above:

- N/a

10. Please give feedback on the logistical arrangements made for the workshop:

	Very Good	Good	Fair	Poor
Workshop venue (s)	5	5		
Lunches and breaks	2	2	5	1
General logistical arrangements	5	4		1

11. Any other comments?

- Great job
- No comment – 9

Thank you!