

# Developing a Climate Adaptation Monitoring and Evaluation System for Grenada's National Adaptation Plan

A technical report based on expert interviews and the results of a government consultation on July 24–26, 2019

Ministry of Climate Resilience, the Environment, Forestry, Fisheries,  
Disaster Management and Information of Grenada

June 2020



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The NAP Global Network was created in 2014 to support developing countries in advancing their NAP processes and help accelerate adaptation efforts around the world. To achieve this, the Network facilitates sustained South–South peer learning and exchange, supports national-level action on NAP development and implementation, and enhances bilateral support for adaptation and climate-sensitive sectors through donor coordination. The Network’s members include participants from more than 140 countries involved in developing and implementing National Adaptation Plans, as well as 11 donor members. Financial support for the Network has been provided by Austria, Canada, Germany, and the United States. The Secretariat is hosted by the International Institute for Sustainable Development (IISD). For more information, visit [www.napglobalnetwork.org](http://www.napglobalnetwork.org).

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## Disclaimer

This report has been commissioned by the Environment Division of the Ministry of Climate Resilience of Grenada. Technical and financial support was provided through the NAP Global Network's Country Support Hub, which is hosted by the International Institute for Sustainable Development (IISD). The report was written by an independent expert on adaptation monitoring and evaluation (Timo Leiter) and commented upon by government partners, stakeholders, and IISD.

Feedback and questions about the report can be sent to Anika Terton ([aterton@iisd.ca](mailto:aterton@iisd.ca)) and Timo Leiter ([T.L.Leiter@lse.ac.uk](mailto:T.L.Leiter@lse.ac.uk)).

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# Executive Summary

The National Adaptation Plan (NAP) and the National Climate Change Policy (NCCP) mandate the establishment of a **monitoring and evaluation (M&E) system for the NAP to achieve four main purposes:**

1. Track the delivery of agreed measures
2. Establish its effectiveness in reducing vulnerability
3. Create an opportunity for learning and adaptive management
4. Fulfill reporting requirements under the United Nations Framework Convention on Climate Change and the Paris Agreement.

Understanding progress in NAP implementation is a prerequisite to knowing how well Grenada is adapting to climate impacts and, hence, a key information source to adjust delivery as needed to better protect the population.

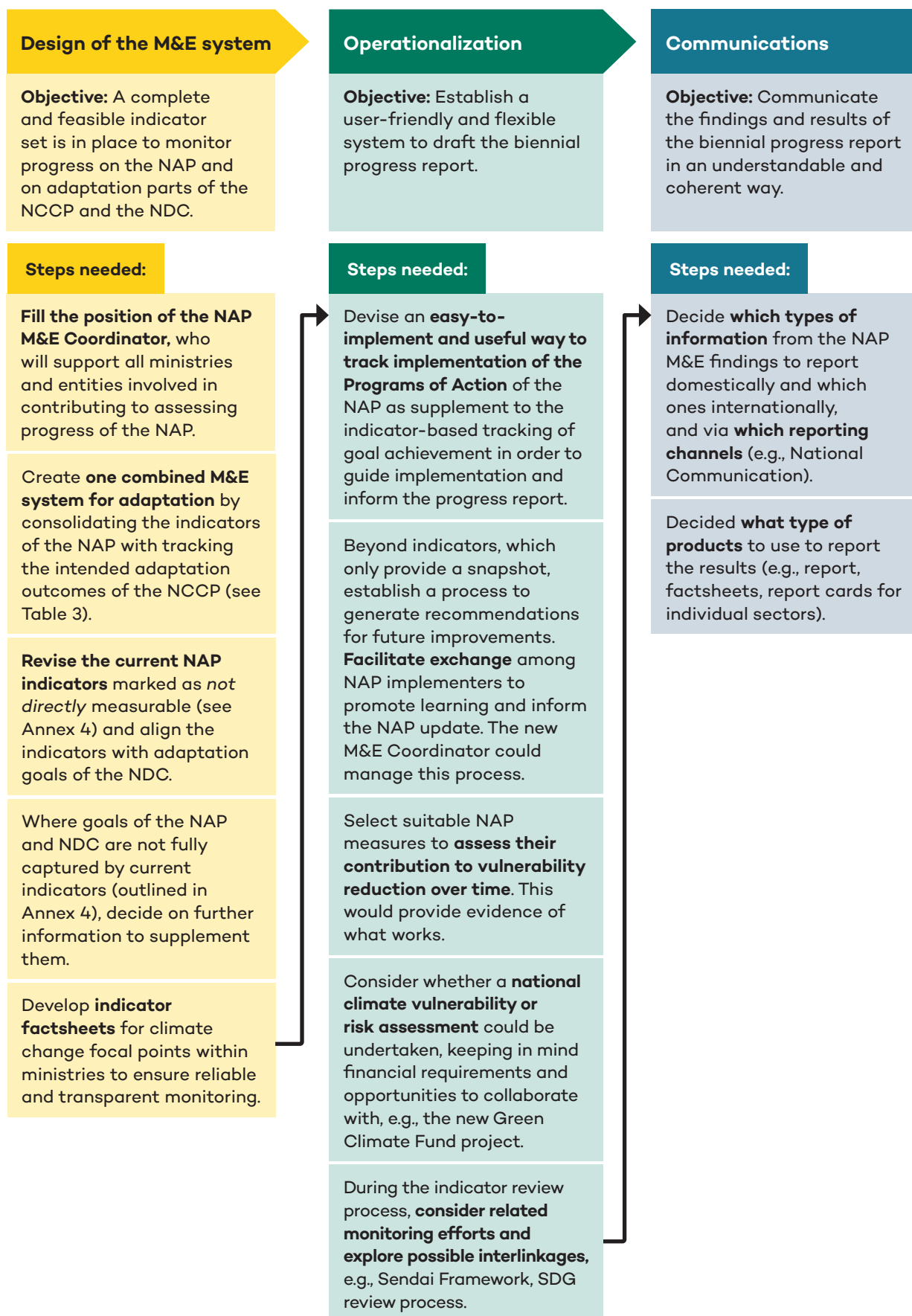
The M&E system is also relevant for the ongoing **update of Grenada's Nationally Determined Contribution (NDC)**, whose adaptation section should be aligned with the NAP process and reflected by the M&E system.

Training and consultation with over **40 participants from 10 ministries**, national entities, and civil society took place on **July 24–26, 2019, in St. George's** as part of support from the **NAP Global Network** funded by the governments of Canada, Germany, and the United States.

This document summarizes the **three decision areas** that need to be addressed in 2020. Details are explained in the full report. Figure ES1 lays out the decisions and individual steps that need to be taken by the Government of Grenada to operationalize the M&E system by 2020.

The full report concludes with draft options that should be proposed to the Senior Management Board.

**Figure ES1.** Key decisions and steps for the development of a NAP M&E system in Grenada



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# Acronyms

<b>ARP</b>	Adaptation Reporting Power
<b>ASC</b>	Adaptation Sub-Committee
<b>CCCCC</b>	Caribbean Community Climate Change Centre
<b>CCORAL</b>	Caribbean Climate Online Risk and Adaptation Tool
<b>CCRA</b>	Climate Change Risk Assessment
<b>COP</b>	Conference of the Parties (to the UNFCCC)
<b>GCF</b>	Green Climate Fund
<b>GIS</b>	geographic information system
<b>GIZ</b>	Deutsche Gesellschaft für Internationale Zusammenarbeit
<b>GoG</b>	Government of Grenada
<b>IISD</b>	International Institute for Sustainable Development
<b>M&amp;E</b>	monitoring and evaluation
<b>NAP</b>	National Adaptation Plan
<b>NCCP</b>	National Climate Change Policy (2017)
<b>NDC</b>	Nationally Determined Contribution
<b>PoA</b>	Programme of Action (as outlined in the NAP)
<b>PSIP</b>	Public Sector Investment Programme
<b>SDC</b>	Sustainable Development Council
<b>SDG</b>	Sustainable Development Goals
<b>UK</b>	United Kingdom
<b>UN</b>	United Nations
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>VA</b>	vulnerability assessment



# 1.0 Introduction

## 1.1 Why This Report Matters

Human activities to date have already caused approximately 1°C of global warming above pre-industrial levels (Intergovernmental Panel on Climate Change, 2018, p. 6). Current national pledges of emission reduction efforts are anticipated to lead to **more than 3°C warming by 2100** (Carbon Action Tracker, 2018). Such levels of warming increase the risk of **serious disruptions to ecosystems, society, and economies** (Steffen et al., 2018). At the same time, new research suggests that the **temperature targets of the 2015 Paris Agreement are unlikely to be achieved** due to continued high levels of fossil fuel usage, time lags in the land system (Brown et al., 2019), and rapidly growing methane releases from melting permafrost (Nisbet et al., 2019).

The recent review of the status of global sustainable development commissioned by all United Nations (UN) member states emphasizes that **progress is not on track to achieve the Sustainable Development Goals (SDGs)**, and “no country is yet convincingly able to meet a set of basic human needs at a globally sustainable level of resource use” (Independent Group of Scientists, 2019, p. xx). António Guterres, UN Secretary-General, concludes:

**Our world as we know it and the future we want are at risk.** We must dramatically step up the pace of implementation as we enter a decisive decade for people and the planet. ... **The future is determined by what we do now** and the window of opportunity is closing fast.

This report is concerned with **how Grenada can track its own progress** toward becoming a resilient island nation that continuously adapts to climate change (i.e., to achieve the vision of the National Adaptation Plan [NAP]). In concert with a national greenhouse gas inventory, a monitoring and evaluation (M&E) system for the NAP will be able to indicate the level of progress Grenada is making in meeting the challenges caused by climate change. The report presents a possible design for the M&E system and options for implementation.

## 1.2 Aims and Background of the Report

The Government of Grenada (GoG) has adopted a **NAP for 2017–2021** to address the already experienced and projected future impacts of climate change (GoG, 2017a). The NAP contains 12 **Programmes of Action (PoAs)**, including the development of an M&E system (PoA 12; see 2.2 for details). A country support request has been submitted to the NAP Global Network<sup>1</sup> to advance

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<sup>1</sup> The NAP Global Network aims to enhance climate adaptation planning and action in developing countries through targeted country support, coordination of bilateral support, and international peer learning and exchange. For more information, see <http://napglobalnetwork.org/about/>

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this particular program. Expert interviews with Grenadian ministries' climate change focal points and other stakeholders conducted between March and May 2019 set the foundation for a capacity-building workshop and consultation that took place from July 24 to 26, 2019, at the Radisson Hotel in St. George's. The objective of the interviews and consultation was to "collect feedback and discuss the design and operationalization of the NAP M&E systems for Grenada," according to the workshop agenda. The consultation was attended by representatives from 10 ministries, government agencies, and civil society organizations (see the list of participants in Annex 1). This report summarizes the findings and charts a way forward.

**The aims of the report are:**

- Guiding the development of Grenada's NAP M&E system through a series of considerations.
- Discussing each consideration in light of results from the interviews and the consultation and presenting **decisions** that need to be taken.
- Outlining a **way forward**, including options for presentation to the Senior Management Board.

The report has been written by an international expert on adaptation M&E (Timo Leiter) and incorporates comments from government partners and stakeholders in Grenada as well as from the NAP Global Network.



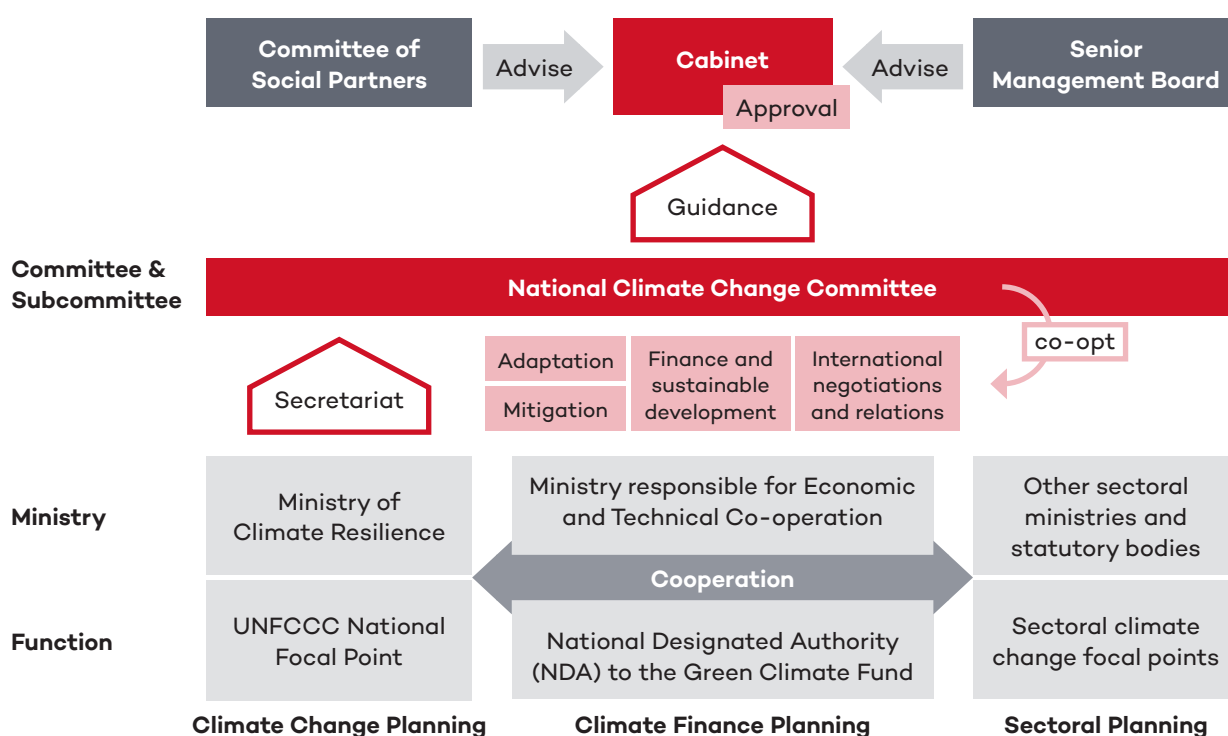
# 2.0 National and International Context for Assessing Adaptation Progress

## 2.1 Policy Context on Climate Change and Adaptation in Grenada

Grenada’s initial climate policy was the National Climate Change Strategy and Action Plan 2007–2011 (GoG, 2007). It was superseded by Grenada’s **National Climate Change Policy 2017 (NCCP)**, which aims to “manag[e] the risks from climate change with emphasis on pursuing a low carbon development pathway and building resilience at the individual, community and national levels” (GoG, 2017b).

The policy stipulates the NAP process to be the central coordination mechanism for adaptation. The **NAP document** was adopted in 2017 and includes **12 PoAs**. **Sectoral climate change focal points** have been established to coordinate across government entities while the **National Climate Change Committee** acts as the main oversight body for climate change for the GoG (Figure 1). Grenada’s **Nationally Determined Contribution (NDC)** from 2015 is currently being updated. Grenada is also a signatory to the CARICOM Regional Framework for Achieving Development Resilient to Climate Change and its implementation plan (Caribbean Community Climate Change Centre [CCCCC], 2009, 2012).

**Figure 1.** Climate change governance and planning processes in Grenada



Source: Presentation by GIZ Grenada.

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## 2.2 International Context

The Paris Agreement explicitly highlights the role of monitoring, evaluation, and learning from adaptation (Article 7.9) and operationalizes it through several transparency and reporting mechanisms and vehicles, which are described in Table 1 (United Nations Framework Convention on Climate Change [UNFCCC], 2015; see also Möhner et al., 2017). In contrast to reporting on mitigation, which is mandatory, countries can choose what to report on adaptation and through which communication channels.

However, since the Paris Agreement elevated the role of adaptation, it follows that information on adaptation is consequently required to reinforce the importance of adaptation. Most importantly, as acknowledged by Grenada’s NCCP and the NAP, M&E assists countries domestically in understanding their own situation and informing planning and decision making. Accordingly, more than 50 countries are in the process of developing country-specific adaptation M&E systems, often as part of their NAPs (Leiter, 2017).

As presented during the M&E training, these national adaptation M&E systems differ from country to country, as they are tailored to the specific country context and the purpose and scope of M&E.<sup>2</sup>

**Table 1. Transparency and reporting channels for adaptation under the UNFCCC and the Paris Agreement**

Reporting channel	Description
<b>National Communication</b> (Paris Agreement, Article 12)	Can include both mitigation and adaptation. Has to include information on greenhouse gases. Grenada submitted one National Communication in 2000. <sup>3</sup>
<b>Adaptation Communication</b> (Paris Agreement, Article 7.10-12)	It may include a country’s priorities, implementation and support needs, plans, and actions. COP 24 agreed on a list of headlines (“elements”) to be included (UNFCCC, 2019a: Decision 9.CMA.1).
<b>Biennial Transparency Report</b> (Paris Agreement, Article 13 and the 24th Conference of the Parties [COP 24] Decision 18.CMA.1)	Under the Transparency Framework, countries are asked to report on the implementation progress of their NDC (voluntary for adaptation). COP 24 agreed on topic areas to be included (UNFCCC, 2019b: Decision 18.CMA.1).

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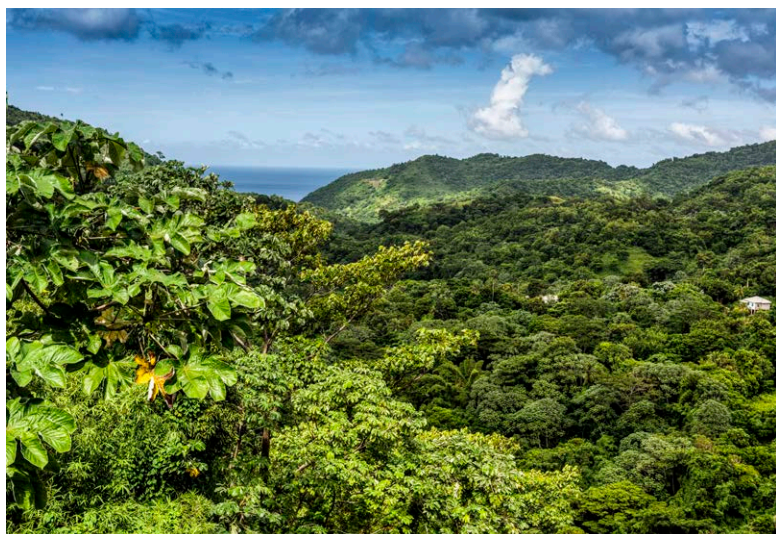
<sup>2</sup> Examples from 15 countries are available as factsheets on [www.AdaptationCommunity.net](http://www.AdaptationCommunity.net) under the topic “Monitoring & Evaluation” → “National M&E.”

<sup>3</sup> Grenada’s First National Communication: <https://unfccc.int/documents/106899>

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## 2.3 M&E Provisions in the NAP and in the NCCP

Grenada's NCCP of 2017 ascertains that "Revision of the National Climate Change Strategy and Action Plan, 2007–2011 revealed that few activities have been implemented or contributed to the achievements of its strategic objectives" (GoG, 2017b, p. 16). This conclusion underscores the need and value of an M&E system to inform implementation and adjust course if needed. The NCCP describes the rationale as follows:



**"Monitoring, evaluating and reporting is a critical component of Grenada's climate change policy** as it will enable Grenada to:

1. track the delivery of agreed measures;
2. establish its effectiveness in reducing vulnerability and GHG emissions;
3. create an opportunity for learning and adaptive management; and
4. fulfil reporting requirements with the UNFCCC and reporting requests from the CCCCC.

This component **aligns with Article 7 of the UNFCCC Paris Agreement** which states that each Party should monitor, evaluate and learn from adaptation policies, plans, programmes and actions" (GoG, 2017b, p. 28).

Accordingly, both the NCCP and the NAP include provisions for M&E. Both foresee **a progress report on the NAP process** to be compiled **every two years** that includes **three pillars**:

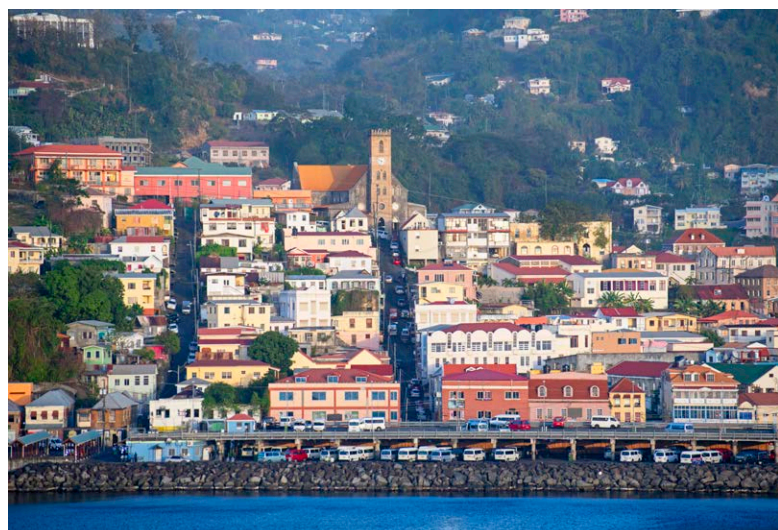
1. New findings on climate change and vulnerabilities
2. Progress and obstacles to achieving goals and indicators
3. Recommendations for future steps and measures.

The progress report is to be submitted to Cabinet and is intended to inform the revision of the NAP and the NDC (GoG, 2017a, p. 70–71). This presents an **advancement over Grenada's NDC from 2015, which did not mention M&E of adaptation**. PoA 12 of the NAP, entitled "Monitoring and Evaluation," further specifies a number of priority actions, which are shown in Table 2 alongside questions for operationalization.

**Table 2. Priority actions on M&E as mentioned in the NAP**

Priority actions mentioned in PoA 12 (M&E) of the NAP	Questions for operationalization
Appoint an <b>M&amp;E Coordinator</b> within the climate change focal point network.	Decide on the role and job description, required skills (see Section 3.2.3, Annex 3).
Collect aggregated <b>data from climate change focal points</b> within ministries/agencies involved in implementation.	Decide on the exact type of data and mechanisms of sharing.
Conduct tailored <b>M&amp;E trainings</b> and build the capacity of climate change focal points, so they are capable of conducting the required tasks.	An adaptation M&E training took place on July 24–25, 2019. Further training needs might arise once the design of the M&E system has been agreed upon.
Analyze and report on <b>adaptive capacity and reduction of vulnerability</b> at the country level and/or how government policies/plans/interventions are contributing.	Decide on the scope of the analysis and the methodology, also considering relevant data and resources.
Analyze and report on adaptive capacity and reduction of vulnerability at the local/individual/household level and <b>how interventions are contributing</b> .	Decide on the scope of the analysis and the methodology, also considering relevant data and resources. Decide which interventions to include and who should do the analysis.
Analyze and report on progress addressing <b>gender</b> through M&E of adaptation.	Consider gender aspects during the design of the M&E system.
Report progress and updates within the National Communication.	The UNFCCC and the Paris Agreement stipulate multiple reporting vehicles for adaptation (National Communications, Adaptation Communications, Biennial Transparency Reports). Grenada needs to decide what type of information to report via which channel and when (see Section 2.2).

The NCCP defines **outcomes** to be achieved by 2021 in quantitative terms whose measurability is indicated by the **colour coding in Table 3** (green = directly measurable; light green = measurable after minor clarifications; yellow = requires definitions before being measurable; orange = measurability can only be determined through stakeholder feedback).



**Table 3. Outcomes defined in the NCCP and their measurability**

<b>Outcomes as defined by the NCCP</b> (excluding mitigation- and foreign policy-related outcomes)	<b>Measurability</b>
(i) Establishment of <b>formal climate change focal points</b> in priority ministries with clear roles and responsibilities.	Directly measurable.
(ii) <b>Improved technical capacity</b> for spatial data management, risk modelling, and climate-smart/green building approaches/standards to build climate resilience.	Need to define a baseline and target groups for capacity building.
(iii) <b>National Climate Change Committee</b> meets on a regular basis and is functioning at the national level involving the private sector, community-based organizations, and non-governmental organizations.	Meeting frequency is directly measurable. Need to define how to measure “functioning.”
(iv) Climate change <b>adaptation is established as a cross-cutting topic in the National Sustainable Development Plan 2030.</b>	Directly measurable from the National Sustainable Development Plan 2030; the degree of “established” needs to be determined/defined.
(v) All <b>new Public Sector Investment Programme (PSIP) projects undergo the Caribbean Climate Online Risk and Adaptation Tool (CCORAL) screening</b> , and 50% of new PSIP projects that are ranked as “high climate change relevance” must integrate adaptation considerations into the project design by 2021.	Directly measurable.
(vi) <b>Reduced water outage times</b> during flooding and droughts. <b>Increased domestic and corporate usage of water conservation/efficiency measures.</b> Reduced incidence of uncompliant surface, sub-surface, and coastal water quality.	Water outage times likely already being measured by the National Water and Sewage Authority. Increased usage of water-efficiency measures possible, measurable via survey from the water authority.
(vii) <b>Uptake of climate-smart agriculture techniques and technologies</b> and establishment of four climate-smart agriculture demonstration sites to highlight different technologies and techniques.	Establishment of demonstration sites is directly measurable. Measuring uptake might be possible through extension services.
(viii) <b>60% of agriculture officers to be advising farmers</b> on how to implement climate-smart agriculture practices.	In principle, directly measurable if there are reporting procedures for agricultural officers.
(ix) <b>20% of Grenada’s marine and coastal ecosystems to be protected and sustainably managed</b> by 2021.	Area under protection directly measurable. Measurement of sustainable management requires a definition of standards.
(x) <b>Climate information is included in the national disease surveillance system</b> to strengthen the analysis and use of climate-sensitive disease data.	In principle, directly measurable, but the degree of “being included” needs to be defined.

<b>Outcomes as defined by the NCCP</b> (excluding mitigation- and foreign policy-related outcomes)	<b>Measurability</b>
(xi) Institutional, professional, and technical capacity for <b>integrated coastal zone management is developed</b> , along with a Coastal Zone Management Unit, by 2020.	Need to define a baseline and target groups for capacity building. Establishment of the Management Unit is directly measurable.
(xii) All ministries and government agencies with a mandate for land management have the <b>capacity to use spatial data to inform decisions on sustainable land management. Climate variability and change are integrated into policies and guidelines</b> for physical planning and development.	For capacity building: need to define a baseline. For integration: need to define degrees of integration.
(xiii) At least two <b>disaster risk management-related proposals are submitted</b> annually to potential donors/ investors, commencing in 2017.	Directly measurable.
(xiv) The Meteorological Office has established a <b>central repository for climate-related data</b> that is operational, with information being shared among agencies by 2020. The National Hydrological and Meteorological Service is established and operationalized to collect climate-related data from multiple sources by 2021.	Directly measurable but would benefit from qualifiers about the user-friendliness or uptake of the central repository rather than just measuring its existence.
(xv) In comparison to the 2013 Organisation of Eastern Caribbean States (OECS) survey, the results of a repeated Knowledge, Attitudes and Practices survey on climate change demonstrates improved results for Grenada by 2021.	If the methodology of the surveys already exists, then it is directly measurable.
(xvii) The <b>Green Climate Fund (GCF)</b> has granted <b>Grenada financial support</b> for readiness activities by June 2017.	Directly measurable.
(xviii) At least four <b>project proposals</b> to finance the implementation of <b>NAP activities</b> are submitted annually to potential donors, commencing in 2017. These should include one project proposal to fund the water sector.	Directly measurable.
(xix) Foreign policy advocacy for international action on climate change is further enhanced and results in limiting and reducing greenhouse gas emissions on a global scale and <b>provisioning by international funding sources allocated to Grenada</b> , in order to adapt to climate change.	Difficult to measure attribution between foreign policy advocacy and reduced global emissions. Provision of funding to Grenada is directly measurable.
(xx) Release of <b>assessment reports on the NAP and NDC process every two years</b> , with recommendations on possible adjustments (including for the 2022+ NAP), to be operational.	Directly measurable.



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**The development of the NAP M&E system subsequently needs to:**

1. Consider the provisions of the NAP and the NCCP, in particular regarding the NAP progress report and the priority actions (Table 2)
2. Consolidate the outcomes of the NCCP and the indicators stipulated in the NAP (Table 3 and Annex 4)
3. Chart a practical way forward to operationalize the NAP M&E system.

These requirements will guide the development of the M&E system, as outlined in Section 3.

## **2.4 Findings From the Interviews**

Interviews with climate change focal points and other relevant staff members from NAP stakeholders were conducted between March and May 2019. **The interviews revealed several gaps with regard to M&E:**

- Planning and decision making often seem not routinely informed by evidence gathered through M&E; instead, they are informed by anecdotal knowledge.
- Even if data is being gathered, it may be stored only on individual computers rather than on servers or in databases, making it difficult to access and vulnerable to data loss.
- If M&E is being undertaken, it often focuses only on tracking implementation rather than on the impacts that implementation has had.
- The degree of the routine operation of M&E differs among the interviewed organizations, partly due to the nature of their work (e.g., organizations that do not implement interventions themselves rely on M&E done by others).

Overall, it was found that the mindset of assessing the achievement of objectives in order to learn and inform policy and implementation is not very widespread. Introducing an M&E system for the NAP was found to require **clear roles and responsibilities**, as well as agreement with respective stakeholders on what to monitor, procedures for data management and storage, integration into the processes of ministries/agencies, capacity building, and sufficient resources. Key findings of the interviews are summarized in Annex 2.

# 3.0 A Framework for the Development of Grenada's NAP M&E System

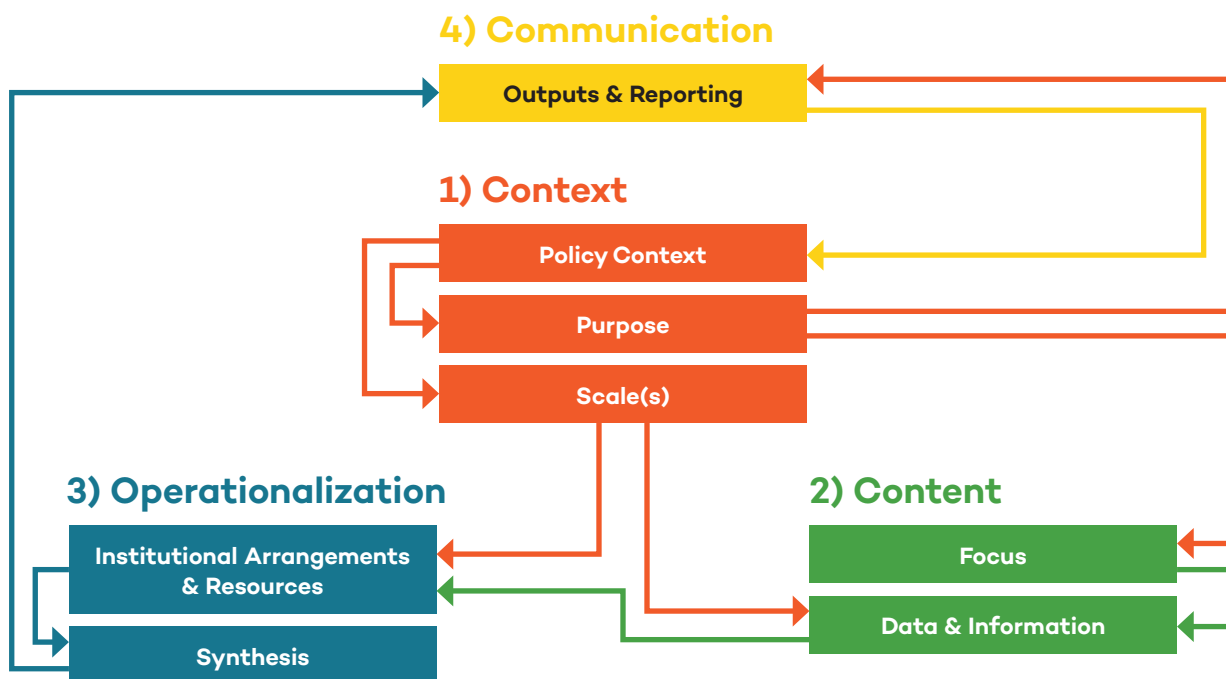
## 3.1 Building Blocks of National Adaptation M&E Systems

While national adaptation M&E systems differ across countries, they share common **building blocks**. In 2015, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the International Institute for Sustainable Development (IISD), in collaboration with the UNFCCC Adaptation Committee and the Least Developed Countries (LDC) Expert Group, published supplementary guidelines on M&E for the NAP process that identified the following four building blocks:

1. **Context:**
  - What is the **policy context** into which the M&E system will be embedded?
  - Which **specific purpose(s)** is the M&E system intended to fulfill?
2. **Content:**
  - What type of **information** do you require to fulfill the purpose of the M&E system?
  - What **data** is available or would need to be newly collected to get the desired information?
3. **Operationalization:**
  - Which **institutional arrangements** will be chosen to implement the M&E system?
  - Which **resources** are available and will be needed for running the M&E system?
4. **Communication:**
  - How will the information generated by the M&E system be communicated, in which **formats**, and to which **target audiences**?
  - Can it be utilized for international reporting?

The four building blocks are not sequential but interact with each other. For example, the definition of information to be collected needs to consider available data and resources, and the definition of the specific M&E purpose is closely aligned with defining target audiences. These linkages are shown in Figure 2. Further details about the building blocks can be found in the guidebook by GIZ & IISD (2015).

**Figure 2.** Interactions among the four building blocks of national adaptation M&E systems



Source: GIZ & IISD, 2015, p. 20.

Of particular importance for the design of the M&E system are the **M&E purpose** (or multiple purposes) and the **scope or focus** of what is to be monitored (building blocks 1 and 2). Getting a comprehensive understanding of adaptation progress within a country would require assessing any adaptation-related activity, from the national to the most local levels. However, resource and legal constraints often make this infeasible (e.g., in federally organized countries, the federal level might not have the legal authority to directly monitor the activities of subnational governments). Furthermore, changes in vulnerability or climate risks are unfolding over longer time periods. A **national adaptation M&E system** can therefore consist of multiple components that cover different aspects of adaptation over different time scales and that, together, provide a comprehensive view of adaptation progress. **Common types of components** are:

- **Repeated national climate vulnerability or risk assessments** under a common methodology that allow consistent measurement and comparison over time.
- **M&E systems of national strategies or action plans**, including NAPs. These might be based on:
  - Monitoring the achievement of targets
  - Tracking implementation of key measures mentioned in the plan/strategy
  - Evaluating the overall effect of the plan/strategy (policy evaluation going beyond predefined indicators)
- **M&E systems of sectoral plans or programs**
- **M&E of individual interventions.**

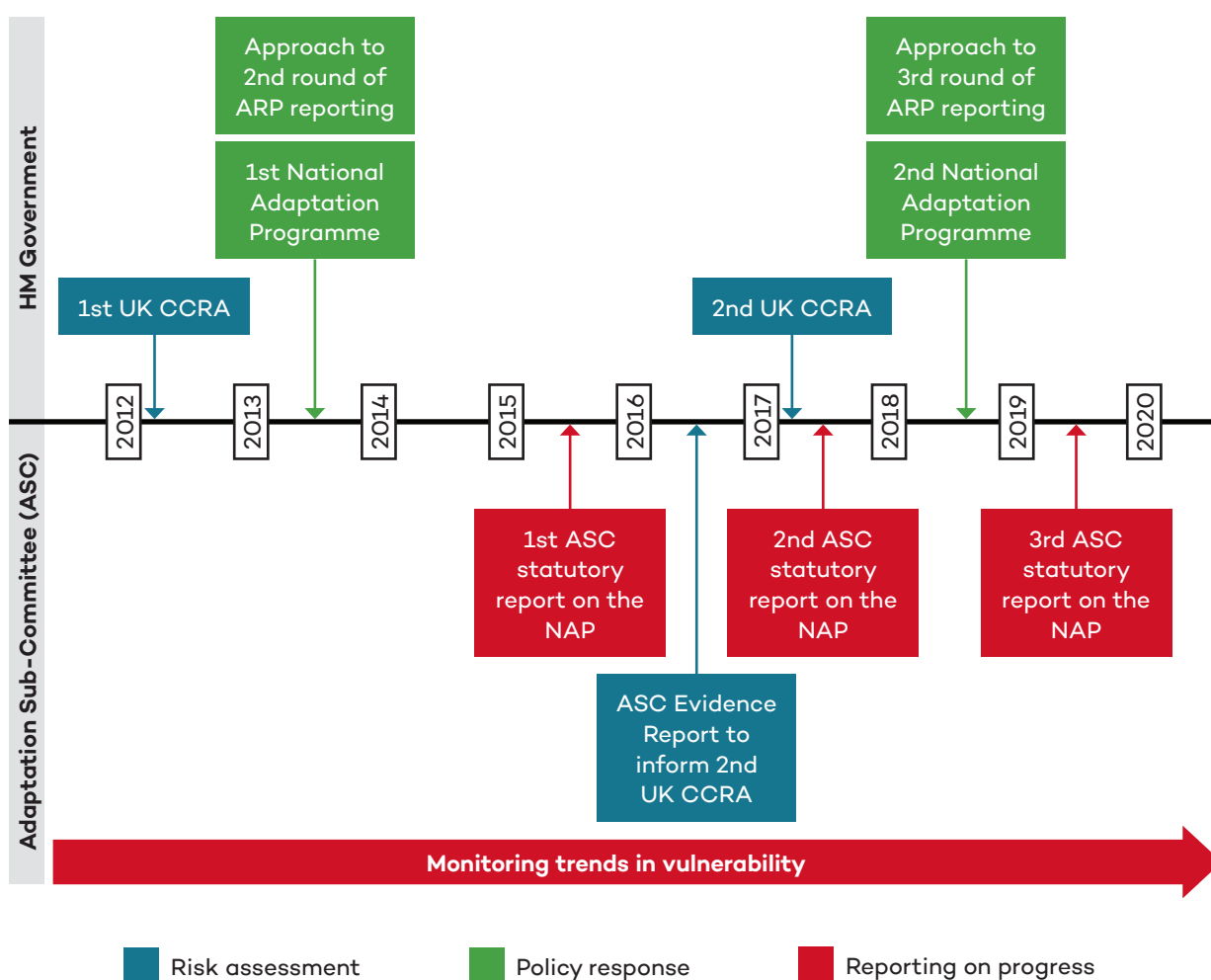
Each of these components can address a different purpose and provide different types of information. Together, the components can complement each other to gain a more

comprehensive view of adaptation in the country. For example, the United Kingdom (UK) undertakes national Climate Change Risk Assessments (CCRAs) every five years and national adaptation progress reports (called Adaptation Reporting Power, ARP) annually. They are sequenced in such a way that the risk reports and the progress reports inform the biennial update of the NAP (see Figure 3). Similarly, **Germany's national adaptation M&E framework consists of three components:**

- A national vulnerability assessment (every 7 years)
- Indicator-based trend monitoring at the national level for the 15 sectors identified in the national adaptation strategy (every 5 years)
- An evaluation report of the implementation of the national adaptation action plan (every 4 years).

All three are meant to inform the update of the national adaptation action plan. Having different components allows the use of different methodologies that can offset each other's gaps—for example, an evaluation that includes qualitative examinations can supplement quantitative indicator-based information, which might not explain how or why a change occurred (Leiter & Pringle, 2018).

**Figure 3. The UK's adaptation policy cycle and M&E components**



Source: UK Committee on Climate Change, 2017, p. 25.

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## 3.2 Key Decision Areas for Grenada's NAP M&E System

Based on the results of the interviews and the consultation as well as on the existing provisions in the NAP and the NCCP (see Section 2.3), the following **decisions** are required to develop Grenada's NAP M&E system:

1. **Mandate and purpose of the M&E system:**
  - What is the legal mandate for the NAP M&E system?
  - Which purposes is the NAP M&E system meant to serve?
2. **Information needs and design of the M&E system:**
  - Which **components** would the NAP M&E system have to fulfill the purposes, and how would they complement each other? (This goes back to the diagram exercise done on the last day of the consultation.)
  - Which information is needed to fulfill the M&E purposes?
  - How would the information needed for the progress report (in particular regarding its recommendations) be collected and compiled?
3. **Institutional arrangements:**
  - How would the M&E system be institutionalized (i.e., who would be involved and how would information flow)?
  - What would be the role of the M&E Coordinator?
4. **Communication**
  - **National reporting:**
    - How would the information generated by the components of the M&E system be communicated? Which channels would be used (e.g., report, website, factsheets, social media)?
  - **International reporting:**
    - Which information would be used for UNFCCC reporting and via which communication formats?

### 3.2.1 Mandate and Purpose of the M&E System

Establishing a NAP M&E system requires a mandate from the government. In Grenada, the NCCP and the NAP, which were both adopted by Cabinet, stipulate the development of a NAP M&E system. This mandate also forms the basis for this report. Experiences from other countries show that the strongest mandate takes the form of a **legal mandate**, for example, as part of a National Climate Change Law (examples are



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the UK's Climate Act from 2008 or Mexico's General Climate Change Law, both of which include an explicit clause on M&E). In Grenada, the Finance Act includes provisions for the CCORAL to be used for screening new investment projects.

**Decision point:** Consider whether to supplement the existing mandate for the NAP M&E system provided by the NCCP and the NAP through a **legal mandate** as part of, for example, a national climate change law.

The NAP and the NCCP already stipulate several **purposes** to be addressed:

1. Track the delivery of agreed measures
2. Establish their effectiveness in reducing vulnerability
3. Create an opportunity for learning and adaptive management
4. Fulfill reporting requirements under the Paris Agreement and reporting requests from the CCCCC.

Hence, the general M&E purposes have already been defined. The **implications for the design of the M&E system** are that it needs to be able not just to track what is being done (implementation; first bullet point above) but also to link those actions to vulnerability assessments (outcomes). This point was highlighted by several interviewees who stressed the need to assess not just implementation but **whether objectives had been achieved**. Furthermore, in order to facilitate learning, the M&E system also needs to examine causal relations about what worked, what did not, and why. **Hence, although no further decisions are required at the moment on the overall purposes of the M&E system, its design needs to be able to fulfill various purposes.**

### 3.2.2 Design of the M&E System

Grenada's NAP already includes design elements for an M&E system. This section reviews them and compares them to the purposes outlined above.

#### 3.2.2.1 TRACKING IMPLEMENTATION AND GOAL ACHIEVEMENT

The NAP includes a list of **19 indicators** linked to **14 goals**. Participants of the training and consultation on July 24–26, 2019, examined the indicators regarding their **measurability** and the **degree to which they reflect the scope of the goals**. It was found that:

- Out of 19 indicators, **only 13 (68%) are directly measurable** (meaning no further clarifications or adjustments in indicator formulation are needed). One indicator was found to be defective in its current wording.
- Out of 14 goals, **just six (43%) are covered in full scope** by existing NAP indicators.

**Annex 4** shows the detailed analysis. The first finding suggests that **clarification is needed to operationalize six indicators**. For the most part, clarification refers to details like how active an “active” focal point needs to be in order to be counted. While this may appear minor, it is essential for reliable measurement and transparency in monitoring. **Indicator factsheets** with details on data sources, calculation methods, and interpretations are one way to address this.

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Indicator factsheets are being used by other national adaptation M&E systems (e.g., by the German adaptation monitoring system) and by climate funds like the Adaptation Fund.

**Decision point:** Consider **clarifying those NAP indicators** marked as not directly measurable in Annex 4. Consider introducing **indicator factsheets** to ensure reliable and transparent monitoring.

The second finding of the group work during the consultation was that, **for almost 60% of the NAP goals, the current indicators do not measure their full scope**. This means that goal achievement cannot be fully accounted for through the existing indicators, and they might even be misleading (i.e., indicating full achievement although only part of a goal has been addressed). Accordingly, indicators for the respective goals might need to be modified or supplemented while keeping data availability and practicality in mind (Annex 6 lists existing indicators with possible relevance for adaptation). Should it not be possible to capture the full scope of goals through indicators, then this should be explained in the progress report.

**Decision point:** Consider **reviewing and supplementing those NAP indicators** that do not capture the full scope of their respective goals in order to enable complete monitoring of the NAP's ambition (see Annex 4).

In addition to the NAP, the **NCCP** also includes **intended adaptation outcomes** (see Table 3) whose M&E “will be undertaken as part of the NAP process” (GoG, 2017b, p. 28). Some of the outcomes are closely related or identical to measures in the NAP, but others are additional. To avoid parallel processes and to maximize synergies and efficiency, **the NAP M&E system should therefore be consolidated with M&E of the NCCP outcomes**.

**Decision point:** Consider **consolidating the indicators of the NAP with tracking the intended adaptation outcomes put forth in the NCCP** (see Table 3) by creating one combined M&E system for adaptation to avoid duplication of efforts.

The NAP outlines **12 PoAs** comprised of specific measures, responsibilities, indicative budgets, and timelines. Apart from goal achievement, monitoring the NAP would look at the extent to which these programs have been implemented. The NAP currently states: “cognisant of human capacity constraints, progress on NAP implementation will be measured by a set of ‘core indicators’ [those discussed above] rather than attempting to identify progress on each individual proposed measure and intervention” (GoG, 2017a, p. 71).

However, not including the PoA *at all* as part of implementation tracking could not appropriately guide implementation and hence would not live up to the mandate for NAP M&E (see Section 3.2.1). It is therefore necessary to **find a way to track implementation without overcomplicating the monitoring**. In fact, it is not necessary to define indicators for each and every measure listed in the NAP. Some of the measures may have been modified, and new ones begun, since

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the publication of the NAP. One option could be a **simple follow-up with the responsible entity** to check whether they have implemented activities under the PoAs. This is a very common component of NAP M&E systems (e.g., as practised by St. Lucia, France, and Brazil). Brazil's first NAP M&E progress report (Government of Brazil, 2017) demonstrates this: every responsible entity provides a one-page summary responding to three questions about:

- Main achievements during the period
- Summary of actions carried out
- Challenges and next steps.

This could be a simple way to track progress and could be conducted by the M&E Coordinator (see Section 3.2.3).

**Decision point:** Consider a **simple way to track implementation of the PoAs** as a supplement to the indicator-based tracking of goal achievement in order to guide implementation and inform the NAP progress report.

### 3.2.2.2 LEARNING

The NCCP states that its objective for M&E is to “create an opportunity for learning and adaptive management” (p. 28). The NAP specifies that **one of the three pillars of the NAP progress report** is meant to be “**recommendations for future steps and measures**” (p. 71). Just monitoring indicators does not create learning since indicators do not explain how or why adaptation happened (Leiter & Pringle, 2018). Instead, the stories behind the indicator changes need to be explored (i.e., what worked, what did not, and why). To do so, the follow-up with responsible entities suggested above could be extended by **qualitative interviews**, similar to the interviews that have been conducted for this report but with different questions. As presented during the M&E training, St. Lucia has considered supplementing focal point surveys with focus groups to understand issues being faced during implementation. The regular meetings of Grenada's climate change focal points could be used to exchange experiences and deliberate recommendations for the update of the NAP. This could be arranged by the M&E Coordinator. Separate meetings with civil society and non-government stakeholders might also assist in the feedback process, possibly as part of or in conjunction with existing stakeholder forums on climate action.

**Decision point:** Consider **supplementing the indicator-based reporting with facilitation of learning** via interviews or peer exchange forums, ideally during already existing meetings/ events. The objective is **targeted learning and reflection** to generate recommendations for the progress report and the NAP update.



### 3.2.2.3 EFFECTIVENESS AND VULNERABILITY REDUCTION

The NCCP states that M&E should “establish its effectiveness in reducing vulnerability” (GoG, 2017b, p. 28). This corresponds to the second official objective of the NAP process approved by the UNFCCC COP, namely, to reduce vulnerability to climate change. Accordingly, PoA 12 (M&E) of the NAP states among its priority actions (see Table 2): “Analyse and report on adaptive capacity and reduction of vulnerability:

- at the **country level**, and/or **how government policies/plans/interventions** are contributing.
- at the **local/individual/household level** and how interventions are contributing.” (GoG, 2017a, p. 71)



However, the consultation and the interviews found that only a small number of climate vulnerability assessments (VAs) have been conducted so far in Grenada, and there is no national climate vulnerability or risk assessment as yet. To implement the priority actions, there would need to be:

1. **Method:** An **agreed method to assess climate vulnerability or risk**, ideally one that is applicable at national and subnational levels and sectors.
2. **Contribution analysis:** A screening of the implemented priority measures of the NAP based on their potential for vulnerability reduction and **an analysis of to what extent they actually managed to reduce vulnerability** (or stabilize it amid increasing climate impacts).

**Not all measures of the NAP will measurably reduce vulnerability** (e.g., having climate focal points is important but does not in itself reduce climate risks). The screening of relevant measures would therefore **help to concentrate efforts** to limit the human and financial resources required. Moreover, even for the most relevant measures, vulnerability reduction might **only be measurable after some time**, usually multiple years, so relevant **time horizons** would need to be defined by when the vulnerability or risk assessment would be repeated. For example, the United Kingdom conducts a national climate risk assessment every 5 years, and Germany conducts one every 7 years. These top-down assessments provide comparability over time but are typically data- and resource-intensive. In addition, a **contribution analysis** is required for every selected measure to determine its contribution to changes in vulnerability. Both the VA and the contribution analysis can be **done in different ways and with different degrees of resource intensiveness**. Importantly, while more intensive analysis ideally increases the robustness of the findings, it does not necessarily lead to better decisions. The choice of which VA method is chosen therefore also depends on the required level of detail and how findings can be integrated into planning and policy-making.

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To assess the effectiveness of adaptation interventions, **pre- and post-intervention VAs** can be conducted. Several conditions need to be met (Leiter, 2018, p. 145–146):

- The method used for the initial VA needs to be exactly replicated. Any deviations would reduce comparability and validity.
- There needs to be a sufficiently long time span between the initial and follow-up VAs in order to detect any changes that might have been influenced by the intervention.
- A plausible explanation of how the intervention has reduced vulnerability needs to be presented (contribution analysis).

An example of a pre- and post-VA is provided in *The Vulnerability Sourcebook* by GIZ, which also outlines a **generic method to undertake VAs** (Cordero & Gutiérrez, 2014; GIZ, 2014). Since the Intergovernmental Panel on Climate Change changed its conceptualization to move from climate vulnerability to climate risk, *The Vulnerability Sourcebook* has been supplemented by a risk-based assessment guidance (GIZ & EURAC, 2017).

**Decision point:** Consider elaborating a process of **assessing contributions of relevant NAP measures to vulnerability reduction**. This would involve:

- Identifying a method for vulnerability assessment
- Screening measures with the highest potential
- Working with the responsible entities to assess contribution.

Due to the time lag, such an analysis would unlikely be available for the first progress report, so the near-term objective would be to work out details of the process that also considers resource requirements and potential funding sources.

**Decision point:** Consider whether a **national climate vulnerability or risk assessment** should be undertaken, keeping in mind financial requirements and existing studies (e.g., feasibility studies undertaken for the GCF project).

### 3.2.3 Operationalization

Interviewees stressed the importance of having **clear roles and responsibilities** as well as **guidance** on what they are expected to do. They generally expressed their willingness to support M&E of the NAP but cautioned that, should additional financial resources or capacity be needed, this could create problems. If involving more than just providing data that is already being collected, it was suggested to embed the activities into the internal planning of the respective entity to allocate time to it. To ensure that NAP M&E can be delivered, the NAP stipulates the appointment of an **M&E Coordinator** as a first priority action. The consultation workshop discussed the necessary skills and competencies for the position (see Annex 3). The **M&E Coordinator would be responsible for undertaking the NAP M&E process**, collecting and compiling data, working collaboratively with different line ministries and stakeholders and supporting their adaptation M&E activities, facilitating learning events, and drafting the NAP

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progress report. Overall, the position would foster the **implementation of the NAP's PoA 12 (M&E and learning)** in a way that would otherwise be difficult to achieve without additional staff capacity.

**Decision point:** Consider **near-term filling of the position of a NAP M&E Coordinator** to realize timely implementation of NAP M&E and of **PoA 12 of the NAP**. The coordinator would also support all ministries and entities involved in contributing to assessing the progress of the NAP.

Organizing **data collection and analysis** is another key aspect of operationalization. While the exact procedures for data gathering can only be determined once the design and data needs of the M&E system have been decided upon (the decision points under Section 3.2.2), the interviewees stressed the need for the convenient and digital flow of information. The consultation therefore embraced the idea of a simple **“plug-in” system** where responsible entities could provide the respective data in a simple and efficient way. Since the data types, formats, and volume could differ markedly between indicators, it was **not considered useful to**

**have a standard template**, but rather to tailor the process with all main data providers. Experience from St. Lucia also showed that even simple templates require support from the coordinating unit to ensure the right information is being provided. This would be a main task of the M&E Coordinator. It was also stressed during the interviews that **data collection and analysis should be done electronically** and that data should be captured on a server or database rather than just on the computer of a single employee where the data would be vulnerable to data loss.

Some of the data needs for NAP M&E could **overlap with existing monitoring efforts in related areas**, such as disaster risk reduction and SDG progress monitoring or with program-based M&E (e.g., under the Pilot Programme for Climate Resilience or the upcoming GCF project). Relevant **linkages to existing M&E systems should be explored to utilize synergies**. Annex 5 lists other M&E systems in Grenada with potential relevance for adaptation. Interlinkages could work both ways, also offering a chance for other reporting processes to integrate findings from NAP M&E (Leiter & Olivier, 2017). Monitoring under the Caribbean Community (CARICOM) climate resilience plan has already been taken into account in the formulation of the current NAP indicators.

**Decision point:** During the indicator review process, **consider related monitoring efforts** and explore **possible interlinkages**, for example, with Sendai Framework and SDG progress monitoring and reporting.



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### 3.2.4 Communication

Decisions on the design of the M&E system should already have the **possible uses and users** of the expected M&E information in mind. There are **different types of users or target audiences**, including:

- **Technical specialists and implementers** (both government and non-government) who seek detailed information
- **Higher-level decision-makers** who seek key facts without too many operational details
- **Interested citizens** who typically seek an overview of what the government is doing.

This list of typical target groups is not exhaustive but illustrates that **different degrees of detail, language** (technical vs. everyday language), **and presentation styles** will be needed. The effort and resources invested in NAP M&E should be **utilized to reach a wider number of people in formats that cater to their needs**. The NAP progress report should therefore not be the only communication product but be accompanied by other formats, such as **factsheets, social media posts, short videos, or features on radio programs**. This might be embedded in a broader climate change outreach campaign in alignment with PoA 10 (“Sustained public education and participation”). The M&E Coordinator could take on the responsibility of effective dissemination and utilization of NAP M&E findings.

One of the purposes of the NAP M&E system, as mentioned in the NAP and the NCCP, is to **contribute to international reporting under the UNFCCC**. The list of priority measures under PoA 12 specifically mentions contributions to the National Communication, which is currently under development. Apart from the National Communication, the Paris Agreement established two additional reporting channels relevant for adaptation, namely Adaptation Communications and Biennial Transparency Reports (see Section 2.2). As such, Grenada can decide what information to report domestically and internationally and via which communication channels.

**Decision point:** Decide which types of information from the NAP M&E findings to report domestically and which ones internationally, and via which reporting channels.

# 4.0 Options for the Senior Management Board

The NAP and the NCCP already mandate the establishment of a NAP M&E system, define a clear purpose, and provide some directions on the M&E system, including an initial list of indicators and the topics to be covered by the NAP progress report. Hence, the **remaining decisions refer mainly to operational details and institutional arrangements**. The two options outlined below differ on the extent of the vulnerability assessment as a way to measure the effectiveness of the NAP. The bullet points follow the decision points outlined in Section 3.

## OPTION 1: EFFICIENT IMPLEMENTATION OF NAP M&E

The Senior Management Board decides (or mandates the coordinating ministry) to:

- **Appoint a NAP M&E Coordinator** to ensure that PoA 12 of the NAP can be implemented in a timely manner so that **Grenada can fulfill its reporting requirements under the Paris Agreement**.
- **Delegate all government entities to closely collaborate and support the NAP M&E process**, including:
  - Provision of agreed data and information in a timely manner
  - Integration of relevant activities into their internal planning (as appropriate).
- **Enhance the list of NAP indicators** to be used for tracking NAP goal achievement to ensure their full measurability as far as existing data and resources permit.
- Use the NAP M&E system to also measure the **achievement of the adaptation-specific outcomes** defined in the NCCP to avoid duplication of efforts.
- **Track implementation of the 12 PoAs** via annual feedback from responsible entities to the Ministry of Climate Resilience, the Environment, Forestry, Fisheries, Disaster Management and Information. A lean process to gather information on implementation without creating an excess load of indicators for every measure is both efficient and provides relevant input for the NAP progress report.
- **Emphasize the role of learning** as part of NAP M&E to understand what works well and why. This is crucial to enable the steering function of M&E.

## OPTION 2: EFFICIENT IMPLEMENTATION OF NAP M&E AND EVALUATION OF EFFECTIVENESS

The Senior Management Board decides (or mandates the coordinating Ministry of the NAP) to **(same bullet points as under option 1 plus the following)**:

- **Assess the feasibility of a national climate vulnerability assessment**, including scope, methods, resources, data requirements, and possible funding sources.
- Compile an **inventory of existing climate vulnerability and risk assessments** conducted in Grenada.
- For selected measures of the NAP, develop a method to analyze their **contribution to vulnerability reduction** and estimate their contribution in time for the second NAP progress report.

# 5.0 Conclusion

Starting with the **national and international contexts for M&E of the NAP**, this report has summarized the **findings of the consultation** that took place on July 24–26, 2019, with 40 participants from institutions in Grenada. Key decisions needed to develop the NAP M&E system have been laid out and explained, backed up with insights from the interviews.

## **Suggested next steps:**

- **Validating the decision points in a follow-up validation workshop** with a similar group of participants and agreeing on decisions as far as possible.
- Presenting the options to the Senior Management Board.
- Exploring possible approaches to a national VA.

If a validation workshop is envisioned, the following could be prepared as the basis for discussion:

## **Tracking implementation and goal achievement**

- Suggestions on how to include the NCCP adaptation outcomes via additional or modified indicators into the NAP indicator list.
- Suggestions on how to measure the full scope of NAP goals for those not fully covered by existing indicators.

## **Measuring effectiveness through vulnerability reduction**

- A **list of existing VAs** in Grenada.
- An **overview of different approaches** to national VAs and implications for data and resource needs.
- A screening of NAP measures according to their relevance and potential for vulnerability reduction. This could form the basis to select measures whose contribution to vulnerability reduction would be assessed.

These preparations could maximize the utility of the workshop and get further ownership from climate change focal points and stakeholders alike.

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# References

- Brown, C., Alexander, P., Arneeth, A., Holman, I., & Rounsevell, M. (2019). Achievement of Paris climate goals unlikely due to time lags in the land system. *Nature Climate Change*, 9, 203–208. <https://doi.org/10.1038/s41558-019-0400-5>
- Carbon Action Tracker. (2018, December). *Warming projections global update*. [https://climateactiontracker.org/documents/507/CAT\\_2018-12-11\\_Briefing\\_WarmingProjectionsGlobalUpdate\\_Dec2018.pdf](https://climateactiontracker.org/documents/507/CAT_2018-12-11_Briefing_WarmingProjectionsGlobalUpdate_Dec2018.pdf)
- Caribbean Community Climate Change Centre (CCCCC). (2009). *Climate change and the Caribbean: A Regional Framework for Achieving Development Resilient to Climate Change (2009–2015)*. <http://dms.caribbeanclimate.bz/M-Files/openfile.aspx?objtype=0&docid=948>
- Caribbean Community Climate Change Centre. (2012). *Delivering transformational change 2011–2021: Implementing the CARICOM ‘Regional Framework for Achieving Development Resilient to Climate Change.’* <https://www.caribbeanclimate.bz/the-regional-climate-change-strategic-framework-and-its-implementation-plan-for-development-resilient-to-climate-change-us2800000/>
- Cordero, C. & Gutiérrez, J. L. (2014). Applying *The Vulnerability Sourcebook*: Vulnerability assessment of smallholder farmers in the community of Chullcu Mayu (Bolivia). In Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), *The Vulnerability Sourcebook Annex* (pp. 59–84). [Also available in French and Spanish]. [http://www.adaptationcommunity.net/?wpfb\\_dl=204](http://www.adaptationcommunity.net/?wpfb_dl=204)
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). (2014). *The Vulnerability Sourcebook: Concept and guidelines for standardised vulnerability assessments*. [Also available in French and Spanish]. <http://www.adaptationcommunity.net/vulnerability-assessment/vulnerability-sourcebook>
- Deutsche Gesellschaft für Internationale Zusammenarbeit & EURAC. (2017). *Risk supplement to The Vulnerability Sourcebook: Guidance on how to apply The Vulnerability Sourcebook’s approach with the new IPCC AR5 concept of climate risk*. [Also available in Arabic, French, and Spanish]. <http://www.adaptationcommunity.net/vulnerability-assessment/vulnerability-sourcebook>
- Deutsche Gesellschaft für Internationale Zusammenarbeit & International Institute for Sustainable Development. (2015). *Developing national adaptation monitoring and evaluation systems: A guidebook*. [http://www.adaptationcommunity.net/?wpfb\\_dl=268](http://www.adaptationcommunity.net/?wpfb_dl=268)
- Government of Brazil. (2017). *National Adaptation Plan – Brazil: 1st monitoring and evaluation report 2016–2017*. <http://www.mma.gov.br/images/arquivo/80182/GTTm/MonitoringReport.pdf>
- Government of Grenada. (GoG). (2007). *National Climate Change Strategy and Action Plan, 2007–2011*. [https://www.gov.gd/egov/docs/other/Grenada-National-Climate-Change-Policy-2017\].pdf](https://www.gov.gd/egov/docs/other/Grenada-National-Climate-Change-Policy-2017].pdf)
- Government of Grenada. (2017a, November). *National Climate Change Adaptation Plan (NAP) for Grenada, Carriacou and Petite Martinique (2017–2021)*. [https://www4.unfccc.int/sites/NAPC/Documents/Parties/Grenada\\_National%20Adaptation%20Plan\\_%202017-2021.pdf](https://www4.unfccc.int/sites/NAPC/Documents/Parties/Grenada_National%20Adaptation%20Plan_%202017-2021.pdf)

- 
- Government of Grenada. (2017b, November). *National Climate Change Policy for Grenada, Carriacou and Petite Martinique (2017-2021)*. November 2017. [https://www4.unfccc.int/sites/NAPC/Documents/Parties/Grenada\\_National%20Climate%20Change%20Policy%202017-2021.pdf](https://www4.unfccc.int/sites/NAPC/Documents/Parties/Grenada_National%20Climate%20Change%20Policy%202017-2021.pdf)
- Independent Group of Scientists appointed by the Secretary-General. (2019). *Global sustainable development report: The future is now – Science for achieving sustainable development*. United Nations. [https://sustainabledevelopment.un.org/content/documents/24797GSDR\\_report\\_2019.pdf](https://sustainabledevelopment.un.org/content/documents/24797GSDR_report_2019.pdf)
- Intergovernmental Panel on Climate Change. (2018). *Global warming of 1.5°C: An IPCC Special Report: Summary for policy makers*. Cambridge University Press. [https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15\\_SPM\\_version\\_report\\_LR.pdf](https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf)
- Leiter, T. (2017). Country-specific assessments of adaptation progress. In United Nations Environment Programme, *The adaptation gap report 2017: Towards global assessment* (pp. 23–34). <https://www.unenvironment.org/resources/adaptation-gap-report-2017>
- Leiter, T. (2018). Assessing results of climate change adaptation projects in practice: Learning from German Technical Development Cooperation. In L. Christiansen, G. Martinez, & P. Naswa. (Eds.), *Adaptation metrics: Perspectives on measuring, aggregating and comparing adaptation results*. UNEP DTU Partnership. [https://www.researchgate.net/publication/323838319\\_Assessing\\_results\\_of\\_climate\\_change\\_adaptation\\_projects\\_in\\_practice\\_Learning\\_from\\_German\\_Technical\\_Development\\_Cooperation](https://www.researchgate.net/publication/323838319_Assessing_results_of_climate_change_adaptation_projects_in_practice_Learning_from_German_Technical_Development_Cooperation)
- Leiter, T., & Olivier, J. (2017). *Synergies in monitoring the implementation of the Paris Agreement, the SDGs and the Sendai Framework* (Policy Brief). Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. [http://www.adaptationcommunity.net/wp-content/uploads/2017/11/giz2017-en-cc-policybrief-synergies-PA\\_SDG\\_SF.pdf](http://www.adaptationcommunity.net/wp-content/uploads/2017/11/giz2017-en-cc-policybrief-synergies-PA_SDG_SF.pdf)
- Leiter, T., & Pringle, P. (2018). Pitfalls and potential of measuring climate change adaptation through adaptation metrics. In L. Christiansen, G. Martinez, & P. Naswa, (Eds.), *Adaptation metrics: Perspectives on measuring, aggregating and comparing adaptation results*. UNEP DTU Partnership. [https://www.researchgate.net/publication/323838261\\_Pitfalls\\_and\\_potential\\_of\\_measuring\\_climate\\_change\\_adaptation\\_through\\_adaptation\\_metrics#page=141](https://www.researchgate.net/publication/323838261_Pitfalls_and_potential_of_measuring_climate_change_adaptation_through_adaptation_metrics#page=141)
- Möhner, A., Leiter, T., & Kato, T. (2017). Adaptation in the Paris Agreement and provisions for review and reporting. In United Nations Environment Programme, *The adaptation gap report 2017: Towards global assessment* (pp. 7–14). [https://wedocs.unep.org/bitstream/handle/20.500.11822/22172/adaptation\\_gap\\_2017.pdf?sequence=1&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/22172/adaptation_gap_2017.pdf?sequence=1&isAllowed=y)
- Nisbet, E. G., Manning, M. R., Dlugokencky, E. J., Fisher, R. E., Lowry, D., Michel, S.E., Lund Myhre, C., Platt, S. M., Sillen, G., Bousquet, P., Brownlow, R., Cain, M. France, J. L., Hermansjon, O., Hossaini, R., Jones, A. E., Levin, I., Manning, A. C., Myhre, G., Pyle, J. A., ...Whyte, J. W. C. (2019). Very strong atmospheric methane growth in the 4 years 2014–2017: Implications for the Paris Agreement. *Global Biogeochemical Cycles*, 33(3). <https://doi.org/10.1029/2018GB006009>
- Steffen, W., Rockström, J., Richardson, K., Lenton, T. M., Folke, C., Liverman, D., Summerhayes, C. P., Barnosky, A. D., Cornell, S. E., Crucifix, M., Donges, J. F., Fetzer, I., Lade, S. J., Scheffer, M., Winkelmann, R., & Schellnhuber, H., J. (2018, August 14). Trajectories of the Earth System in the Anthropocene. *PNAS*, 115(33), 8252–8259. <https://www.pnas.org/content/pnas/115/33/8252.full.pdf>



---

UK Committee on Climate Change (2017). *Progress in preparing for climate change. 2017 report to Parliament*. <https://www.theccc.org.uk/wp-content/uploads/2017/06/2017-Report-to-Parliament-Progress-in-preparing-for-climate-change.pdf>

United Nations Framework Convention on Climate Change (UNFCCC). (2015). *Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015. Addendum, Part two: Action taken by the Conference of the Parties at its twenty-first session [includes the Paris Agreement]*. (FCCC/CP/2015/10/Add.1). <https://unfccc.int/sites/default/files/resource/docs/2015/cop21/eng/10a01.pdf?download>

United Nations Framework Convention on Climate Change. (2018a). *Report of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement on the third part of its first session, held in Katowice from 2 to 15 December 2018. Addendum 1. Decisions 1-12*. (FCCC/PA/CMA/2018/3/Add.1). [https://unfccc.int/sites/default/files/resource/cma2018\\_3\\_add1\\_advance.pdf](https://unfccc.int/sites/default/files/resource/cma2018_3_add1_advance.pdf)

United Nations Framework Convention on Climate Change. (2018b). *Report of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement on the third part of its first session, held in Katowice from 2 to 15 December 2018. Addendum 2. Decisions 13-20*. (FCCC/PA/CMA/2018/3/Add.2). [https://unfccc.int/sites/default/files/resource/cma2018\\_3\\_add1\\_advance.pdf](https://unfccc.int/sites/default/files/resource/cma2018_3_add1_advance.pdf)

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# Annex 1. List of Participants

## Capacity-Building Workshop and Consultation on the Design and Operationalization of the National Adaptation Plan (NAP) M&E System for Grenada

Date: July 24–26, 2019

Location: Grenada Room – The Radisson, St. George’s, Grenada

	First	Last	Organization
1	Allen	Gilbert	Grenada Solid Waste Management Authority
2	Angus	Friday	National Climate Change Committee
3	Anika	Terton	International Institute for Sustainable Development
4	Anthony	Jeremiah	Forestry Division, Min. of Climate Resilience
5	Aria	St. Louis	Environment Division, Min. of Climate Resilience
6	Benedict	Peters	Ministry of Climate Resilience
7	Celia	Edwards	Min. of Agriculture and Lands
8	Christopher	Husbands	National Water and Sewage Authority (NAWASA)
9	Clive	Hosten	Grenada Electricity Services Ltd
10	David	Hopkin	Cabinet Office
11	Delysia	DeCoteau	Min. of Tourism and Civil Aviation
12	Deryck	Ramkehelwan	Min. of Health
13	Dwayne	Cenac	GRENLEC
14	Esther	Thomas	Min. of Infrastructure Development
15	Fabian	Purcell	Physical Planning Unit, Ministry of Finance
16	Fitzroy	James	National Climate Change Committee
17	Glenroy	George	Min. of Education
18	Gloria	Ashby	Cabinet Office

	<b>First</b>	<b>Last</b>	<b>Organization</b>
19	Hubert	Whyte	Meteorological Services, Grenada Airport Authority
20	Ian	Noel	Grenada Ports Authority
21	Janel	Quashie	Min. of Carriacou & PM Affairs
22	Jevon	Prime	Min. of Carriacou & PM Affairs
23	Joseph	Noel	Min. of Agriculture and Lands
24	Karen	Louison	Department of Public Administration
25	Karrym	Forsyth	Min. of Agriculture and Lands
26	Kemron	Dufont	National Disaster Management Agency (NaDMA)
27	Lorna	Charles	Min. of Infrastructure Development
28	Lynette	Ogilvie-Alexis	Grenada Solid Waste Management Authority (GSWMA)
29	Maier	Sifflet	Min. of Education, Innovation, Gender Relations and Sustainable Development, Gov. of St. Lucia
30	Marlon	Clyne	Grenada Port Authority
31	Merina	Jessamy	Permanent Secretary, Min. Infrastructure Dev. & Implementation
32	Michael	Church	Min. of Agriculture and Lands
33	Nathale	Clarke-Lewis	M&E Consultant
34	Nyasha	Regis	Physical Planning Unit, Ministry of Finance
35	Roxie	Hutchinson	Permanent Secretary (Ag.), Ministry of Climate Resilience
36	Royden	Beharry	Min. of Youth, Sports, Culture and the Arts
37	Safiya	Sawney	
38	Sandra	Ferguson	Inter-Agency Group of Development Organisations (IAGDO)
39	Simon	Stiell	Ministry of Climate Resilience
40	Simone	Lewis	Global Water Partnership-Caribbean
41	Sylvan	McIntyre	National Disaster Management Agency (NaDMA)

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	<b>First</b>	<b>Last</b>	<b>Organization</b>
42	Timo	Leiter	Independent consultant, affiliated with the London School of Economics and Political Science (LSE)
43	Trevor	Thompson	Min. of Agriculture and Lands
44	Verna	Phillip	Min. of Agriculture and Lands
45	Whyme	Cox	National Water and Sewage Authority (NAWASA)

# Annex 2. Takeaways from Interviews

Entity	Takeaways from the interview	Suggestions on what to monitor and which data to use
Ministry of Agriculture and Lands	<ul style="list-style-type: none"> <li>• One way of <b>data collection could be via extension offers</b> but that would probably require capacity building and strengthening of current reporting procedures.</li> <li>• <b>Flow of information:</b> extension officers → districts (four agricultural districts) → extension division within the Ministry of Agriculture.</li> <li>• Gap in analyzing data, not just in collecting data.</li> <li>• Need for science-informed planning.</li> <li>• Reassignment of staff and loss of human capacity are issues that impact deliverability in general and could impact measurement and evaluation (M&amp;E) too.</li> </ul>	<p><b>Possibly relevant:</b></p> <ul style="list-style-type: none"> <li>• Production data</li> <li>• Incidences of pests and disease</li> <li>• National Water Information System</li> <li>• Repository of all geographic information system (GIS) data for the country is held by the ministry</li> </ul> <p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>• Since most of the data is collected on paper → need for <b>digitalization</b></li> <li>• Improve internal communication channels</li> <li>• Routinely analyze data and use it for planning and decision making</li> </ul> <p><b>Gaps:</b></p> <ul style="list-style-type: none"> <li>• Production data at the point of production (rather than at the point of sales)</li> <li>• Vulnerability assessments</li> </ul>

Entity	Takeaways from the interview	Suggestions on what to monitor and which data to use
National Water and Sewage Authority (NAWASA)	<ul style="list-style-type: none"> <li>• They have already changed procedures for pipe installation to account for climate impacts (e.g., some pipes were vulnerable to breaks caused by landslides). Water availability mainly impacted during the dry season.</li> <li>• NAWASA does <b>not have a stand-alone adaptation program, so mainstreaming</b> is all-important. In addition, a large Green Climate Fund (GCF) project on water is about to start.</li> <li>• NAWASA <b>operates on targets and schedules, very accustomed to applying M&amp;E</b>. Department heads are responsible for producing monthly reports. Could incorporate adaptation-related targets and tracking into their operations but reaching targets might require additional <b>resources</b>.</li> <li>• Advocates that NAWASA should be involved in determining relevant baselines and targets.</li> <li>• Securing <b>long-term data storage</b> has been an issue.</li> </ul>	<p><b>Suggestions for measurement:</b></p> <ul style="list-style-type: none"> <li>• Storage capacity (e.g., X% higher by year 20xx)</li> <li>• NAWASA's non-revenue water should be reduced and maintained to nothing above 15%</li> <li>• Mainstreaming of climate change adaptation into operational plans</li> <li>• GCF project has baseline/feasibility studies, which might indicate further areas for monitoring</li> <li>• Water availability (limited suitability as target because it cannot be influenced directly other than through storage)</li> </ul> <p>Further sources for data and indicators:</p> <ul style="list-style-type: none"> <li>• Data, for example from rivers (e.g., stream flow), dams, plant operators</li> <li>• NAWASA's five-year strategy and annual plans could be a further source to identify relevant indicators</li> <li>• Ministry of Agriculture manages watersheds</li> </ul> <p><b>Data gaps:</b></p> <ul style="list-style-type: none"> <li>• Rainfall patterns</li> <li>• Data prior to 2005</li> </ul>
Ministry of Carriacou and Petite Martinique Affairs	<ul style="list-style-type: none"> <li>• Vacancy of planning officer position means that projects do not regularly get screened for climate impacts.</li> <li>• Additional awareness needed at the senior level for the impacts of climate change and the need to mainstream it into all projects.</li> <li>• M&amp;E mainly project based, following requirements of respective donors.</li> <li>• Monitoring largely limited to outputs and delivery (e.g., road has been built) rather than what happens afterwards and whether the desired objectives have been achieved.</li> </ul>	<p>Drones as a possible way to map sensitive areas, including protected areas, mangroves, and coastal areas.</p> <p><b>Data gaps:</b></p> <ul style="list-style-type: none"> <li>• Rainfall information</li> <li>• Water quality</li> <li>• One weather station is not working</li> </ul> <p>As a result: decision making is based on anecdotal knowledge.</p>
Ministry of Foreign Affairs	The ministry is not an implementing ministry. It engages in international advocacy on climate action.	N/A (analysis of data is left to line ministries).

Entity	Takeaways from the interview	Suggestions on what to monitor and which data to use
National Disaster Management Agency (NaDMA)	<ul style="list-style-type: none"> <li>• Generate damage and needs assessment reports. Partly dependent on data from other government agencies such as Social Services, National Statistics, Ministry of Health, the police as well as from Grenada Red Cross and faith-based organizations.</li> <li>• Uses after-action reviews to understand what worked well and what could have been done differently.</li> <li>• Budget for M&amp;E will be critical.</li> </ul>	
Sustainable Development Council (SDC)	<ul style="list-style-type: none"> <li>• The SDC provides guidance and direction and acts as forum for exchange and feedback on policy documents and plans.</li> <li>• Aiming for a continuous feedback loop on implementation.</li> <li>• The M&amp;E system of the NAP should be multi-level (from local to national) and find ways to aggregate data. Its information products should be relevant for decision making.</li> </ul>	SDC does not run independent assessments. However, it will look at the impact of the NAP and whether it achieves its set objectives.
Solid Waste Management Authority	<ul style="list-style-type: none"> <li>• Role of the waste sector for mitigation of greenhouse gases.</li> </ul>	Using a GIS system for population density to calculate the expected quantity of waste per area.
Grenada Electricity Services Ltd	<ul style="list-style-type: none"> <li>• Energy infrastructure is run along the roadways of Grenada, so closely connected to climate impacts on the road network.</li> <li>• Changes have been made to the way lines and poles are constructed based on past hurricane experience. Also, undertake precautionary work before the hurricane seasons such as tree trimming.</li> <li>• Work with Key Performance Indicators internally.</li> </ul>	<p><b>Possibly relevant data/indicators:</b></p> <ul style="list-style-type: none"> <li>• Energy downtime due to extreme weather events</li> </ul> <p><b>Recommendation:</b></p> <ul style="list-style-type: none"> <li>• Having clear targets on adaptation</li> </ul>

Entity	Takeaways from the interview	Suggestions on what to monitor and which data to use
Department of Economic and Technical Cooperation	<ul style="list-style-type: none"> <li>• Work on <b>climate change budget labelling</b> started in 2016 but accounts have not yet been adjusted. Technical challenge is how to split revenue for activities associated with multiple objectives without overreporting the revenues spent.</li> <li>• Aim to fully climate-proof all investments under the Public Sector Investment Plan (PSIP).</li> <li>• <b>M&amp;E of adaptation really needed.</b></li> <li>• Important to measure not just implementation but also <b>the effects of implementation</b> and whether objectives have been achieved.</li> <li>• Evaluation done by an independent party could avoid reporting bias.</li> </ul>	<p><b>Possible indicators:</b></p> <ul style="list-style-type: none"> <li>• Percentage of capital projects with relevance for climate action</li> <li>• Amount of spending geared toward addressing climate change (mitigation and adaptation)</li> </ul> <p>Data and indicators from the Pilot Project for Climate Resilience (PPCR) project could be relevant.</p>
Cabinet Office	<ul style="list-style-type: none"> <li>• The Cabinet Office got recently restructured.</li> <li>• Advocates for a role of the Cabinet Office in monitoring the NAP.</li> </ul>	None that would be measured by the Cabinet Office.
Port	<ul style="list-style-type: none"> <li>• Currently, the port is trying to mainstream climate change into existing plans. Awareness of senior level administrators is key.</li> </ul>	None directly related to climate change adaptation.
Ministry of Education	<ul style="list-style-type: none"> <li>• Data are not stored on servers but rather on individual computers, making them vulnerable to loss.</li> <li>• Turnover at senior administrative level and limited awareness about climate change make it difficult to act.</li> </ul>	None directly related to climate change adaptation..



Entity	Takeaways from the interview	Suggestions on what to monitor and which data to use
Ministry of Health	<ul style="list-style-type: none"> <li>• Stresses the need for <b>NAP activities to be incorporated into program budgeting</b> to be really monitored.</li> <li>• In the process of developing an <b>M&amp;E framework for the ministry</b> via a consultancy; aiming also for capacity building. Currently the M&amp;E mindset is rather weak. <b>Data is not being used strategically</b> for decision making, and baselines are often lacking or not easily available.</li> <li>• Try as much as possible to <b>make all the data collection electronic</b>. However, this requires also a <b>change in legislation</b> so that, for auditing purposes, electronic rather than paper-based records are acceptable.</li> <li>• Need <b>clarity on roles and mechanisms</b>, e.g., on who is responsible to report to whom and how data is being shared between ministries or agencies; trying to find an efficient mechanism. Taking on additional duties might be a challenge.</li> <li>• Retrofitting a number of health facilities to be able to withstand Cat. 4 hurricanes. Using the Hospital Safety Index and a Green Checklist to assess resilience and sustainability of hospitals.</li> </ul>	<ul style="list-style-type: none"> <li>• Using standard, health systems indicators, no indicators reflecting to climate change</li> <li>• Data around incidents of vector-borne diseases could be relevant</li> <li>• Possibly disaster mitigation spending</li> </ul>

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# Annex 3. M&E Coordinator Profile

The following profile is based on inputs made during the consultation session.

## OVERALL RESPONSIBILITY

- Coordinating and delivering the National Adaptation Program (NAP) monitoring and evaluation (M&E) system.
- Drafting the NAP progress report and contributing to other international reports
- Implementing Programme of Action 12 of the NAP.
- Supporting responsible entities and stakeholders in their adaptation M&E efforts.

## ESSENTIAL DUTIES

- Manage monitoring, evaluation, and learning processes as part of the NAP process.
- Collect, monitor, and review data reported from specific program activities, databases, and line ministries related to climate change to ensure data accuracy and completeness.
- During routine and ongoing data review, communicate any problems with data quality to the relevant program officers/managers to ensure accurate data collection and reporting.
- Lead and support the development of reporting protocols, including performance indicators, all of which take gender and cross-cutting issues into account.
- Provide support to sector-specific assessments and reporting processes and keep abreast of new ideas, concepts, and research related to M&E activities by other countries.
- Work collaboratively with different line ministries and stakeholders; liaise with the public and the private sectors.
- Lead the development and design of progress reports, presentations, and other materials to communicate results.
- Organize, coordinate, and assist with the facilitation of learning events in the form of workshops, seminars, and trainings for government and program staff.
- Support processes for continual learning and adaptation within M&E of adaptation, and provide recommendations to changes in approaches, interventions, performance monitoring, and/or work plans as necessary.

## REQUIRED SKILLS AND EXPERIENCE

- Master's degree in environment, sustainable development, business administration, policy analysis, and climate change or a closely related field.
- Approximately 2–5 years of experience in climate change planning and policy, ideally with some demonstrated experience in NAP specifically.
- Demonstrated experience in M&E of development interventions, ideally related to climate action.

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- Robust data analysis expertise, excellent data management skills, strong attention to detail, and comfort working with large amounts of data at the same time.
  - Very good quantitative and qualitative research skills, particularly in areas related to indicator tracking and development.
  - Demonstrated experience in the production of technical documents and materials, including progress reports and policy briefs.
  - Experience in in-person training and facilitation.

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# Annex 4. Current NAP Indicators and Their Measurability

Annex 4 is a list of current NAP indicators (Government of Grenada, 2017a, pp. 12–13) and their quality assessment based on group work during the training/consultation and the author’s assessment. The third column shows whether indicator formulation is sufficiently clear to allow direct measurement. The fourth column shows whether the indicators cover the entire scope of the goal.

## COLOUR CODE:

	Indicator	Scope of the goal
Green	directly measurable	sufficiently covered by the indicators
Yellow	requires additional clarification to be measurable	only partially covered
Orange	not measurable in the current form	insufficiently covered

Hence, to be of high quality, any row would need to be green in the third AND the fourth columns.

## RESULTS:

Of 19 indicators

- 13 are directly measurable (68%)
- One is immeasurable

Of 14 goals:

- Just six are covered in full scope by existing NAP indicators (43%)

Goal	NAP indicators	Can the indicators be directly measured?	Do the indicators cover the full scope of the goal?
1. The institutional structure to support coordination, integration, and implementation of climate change adaptation action is strengthened.	1.1 At least 12 ministries/ agencies each have active Climate Change Focal Points.	How is "active" being determined?	Doesn't speak to the whole goal (integration and implementation missing).
	1.2 Evidence that the National Climate Change Committee meets on a regular basis and is functioning at the national level involving the private sector, community-based organizations, and non-governmental organizations (with specific attention given to youth and gender groups).	How is "functioning" being determined?	Doesn't speak to the whole goal (integration and implementation missing).
2. Climate Change Adaptation is reflected in the process of National Sustainable Development Plan formulation and implementation.	2.1 Climate change adaptation is a cross-cutting topic in the National Sustainable Development Plan 2030.	✓	Implementation isn't covered!
3. Climate change is systematically considered in new government projects.	3.1 All new Public Sector Investment Programme (PSIP) projects undergo the Caribbean Climate Online Risk and Adaptation Tool (CCORAL) screening.	✓	✓
	3.2 50% of new PSIP projects that have ranked as "high climate change relevance" integrate adaptation considerations into the project design by 2021.	Might need to specify a minimum level of what integration needs to do in order to count.	✓
4. A climate-responsive water governance structure is established.	4.1 55% of institutional mechanisms taken to improve planning, management, and efficient use of water resources	What does "taken" mean? Remains unclear.	Formulation of the indicator is defective.

Goal	NAP indicators	Can the indicators be directly measured?	Do the indicators cover the full scope of the goal?
5. The foundation is laid for food availability, stability, access, and safety amid increasing climate change risks.	5.1 60% of agriculture officers advising farmers to implement climate-smart agriculture practices.	Is there a minimum level of their advisory time in order to count?	Does not include aspects of stability, access, and safety.
6. Improve management and conservation of protected areas and other key ecosystems areas.	6.1 Protecting and sustainably managing 20% of Grenada's marine, coastal, and terrestrial ecosystems by 2021.	How is "sustainable managed" being determined?	✓
7. The institutional, professional, and technical capacity for integrated coastal zone management is built.	7.1 A Coastal Zone Management unit is established by 2020.	✓	Doesn't capture the capacity.
8. Selected infrastructure is adequately planned, designed, properly located, and maintained to be resilient to climate change, including increasingly extreme weather events; land is to be managed sustainably.	8.1 All ministries and government agencies with the mandate for land management have the capacity to use spatial data to inform decisions on sustainable land management.	How is a sufficient level of capacity defined/ measured?	Doesn't capture "adequately planned, designed, properly located, and maintained."
	8.2 Climate variability and change are integrated into policies and guidelines for physical planning and development.	Might need to specify a minimum level of what integration needs to do in order to count.	Indicator measures integration into planning but not the actual land management.
9. Funding is mobilized for the implementation of actions focusing on reducing the risks posed by extreme weather events as part of the National Disaster Management Agency's 5-year Country Programme (2014-2019).	9.1 At least two project proposals are submitted to potential donors and/or investors annually, starting in 2017.	✓	✓

Goal	NAP indicators	Can the indicators be directly measured?	Do the indicators cover the full scope of the goal?
10. Climate-sensitive disease surveillance and control is established.	10.1 Climate information has been included in the national disease surveillance system to strengthen the analysis and use of climate-sensitive disease data.	Might need to specify a minimum level of what “included” means in order to count.	✓
11. Strengthened institutional arrangements for the collection, analysis, and provision of climate-related data for use in decision making.	11.1 The establishment by the Meteorological Office of a central repository for climate-related data that is operational, with information being shared among agencies by 2020.	✓	✓
	11.2 Establishment of the National Hydrological and Meteorological Service, operationalized to collect climate-related data from all available sources (to support the Sustainable Development Goals) by 2021.	✓	The collection from all available sources represents strengthened arrangements for collection.
12. An informed public that will demand and support public policies aimed at building national resilience to climate change.	12.1 Compared to the 2016 Organisation of Eastern Caribbean States (OECS) survey, results of a repeated Knowledge, Attitudes, and Practices (KAP) survey on climate change demonstrate improved results for Grenada by 2021.	Might set a minimum for “improved results.”	Does not directly capture support for public policies on climate change (would need to define a specific score of the test that is assumed to be associated with policy support).

Goal	NAP indicators	Can the indicators be directly measured?	Do the indicators cover the full scope of the goal?
13. Successful project applications ensure external climate finance support to Grenada's adaptation process.	13.1 The Green Climate Fund (GCF) has granted Grenada financial support for readiness activities by June 2017.	✓ Could specify whether "granted" is fulfilled through GCF approval or upon signature of the contract.	✓
	13.2 [duplicated from goal 9] At least two project proposals to finance implementation of NAP activities are submitted to potential donors and/or investors annually, starting in 2017.	✓	✓
	13.3 At least one proposal of relevance for the implementation of NAP actions under Programme of Action 3 has been submitted to the GCF, in December 2017.	✓	✓
14. The implementation of proposed NAP measures, to be documented.	14.1 Assessment reports on the NAP process are released every two years, which give recommendations on possible adjustments in the process to be reflected in the NAP document 2022–2027.	✓	✓



# Annex 5. Current Monitoring and Evaluation (M&E) Systems in Grenada with Relevance for Adaptation

Scope	Approaches	Key Features	Key Mechanisms for Operations
M&E systems for climate change development interventions	Pilot Programme for Climate Resilience	Regional-level monitoring framework based on five core indicators	Monitoring based on country-specific scorecards; data aggregated to the regional level.
	NDC Partnership Implementation Framework	Monitoring and reporting framework	Yet to be operationalized but will focus on monitoring and reporting on mitigation and adaptation, with emphasis on water and agriculture sectors.
	M&E Systems and Frameworks for Donor-Funded Projects	Project-specific M&E systems, usually based on funders' requirements	Project Implementing Unit/ Project Team, steering committees oversee management functions (including M&E) Reporting to GoG may be formal or informal.
Government of Grenada (GoG)	GoG Corporate Plan Cycle	Results-based strategic planning and performance measurement, but mainly limited to implementation (has it taken place?) rather than outcomes (what effects has it had?)	Ministry- and department-level planning, implementation, monitoring, and reporting. Policy committees, heads of departments and Senior Management Board have implementation oversight; data collected at functional levels. Cabinet Office supports M&E capacity building.
	GoG PSIP Monitoring and Reporting	Monitoring and reporting on GoG investments	Yet to be operationalized but will focus on monitoring and reporting on public sector investments.

Source: Modified from an internal technical report by consultant Melissa March.

# Annex 6. Existing Indicators in Grenada with Possible Relevance for Adaptation

The new fourth column indicates the adaptation relevance of the data source or indicator using the following colour code: green = direct adaptation relevance; light green = likely adaptation relevant.

Sectors	Data or indicators	Data source	Adaptation relevance
Agriculture, land use	1. Number of Marine Protected Areas declared	Ministry of Agriculture, Lands, Fisheries, Forestry and the Environment Corporate Plan 2015 to 2017	Depends on the protected area
	2. Number of Marine Protected Area regulations updated and gazetted		
	3. 60% of agriculture officers advising farmers to implement climate-smart agriculture practices		Depends on content
	4. Increase in number of farmers trained in Farmer Field Schools annually		Depends on content
	5. Rainwater harvesting systems established		Adaptation action
	6. Number of Public Sector Investment Programme projects assessed with the Caribbean Climate Online Risk and Adaptation Tool (CCORAL)		Mainstreaming
	7. Rehabilitate 100 ha of degraded forests in Grenada and Carriacou	Grenada Land Degradation Neutrality National Report	Possible co-benefits for adaptation (to be confirmed)
	8. Implement soil conservation measures on 120 ha of land by 2030		Possible co-benefits for adaptation (to be confirmed)
	9. Transform 800 ha of abandoned cropland into agroforestry by 2030		Likely adaptation relevant

Sectors	Data or indicators	Data source	Adaptation relevance
	10. Rehabilitate 383 ha of degraded land at Bellevue South in Carriacou by 2030		Depends on land use after rehabilitation and on further context
	11. Increase the fertility and productivity of 580 ha of cropland by 2030		Depends on whether increase is sustainable and addressing climate impacts
	12. Number of hectares with improved soil health measured by soil organic matter and nutrient balance relative to baseline conditions	Grand Bay Community Cistern Refurbishment Project proposal document	Depends on land use and sustainability of soil health
	13. Increase in the number of hectares of grazing area with adaptive and improved grazing techniques		Adaptation action
	14. Percentage increase in agricultural land covered with improved climate-resilient irrigation systems		Adaptation action
	15. Area of farmland where climate-smart agriculture technologies have been adopted (e.g., reduced tillage, permanent crop cover, agroforestry)		Likely adaptation relevant (depends on community supported agriculture techniques and context)
	16. 50% increase in storage capacity, which meets potable drinking water standards on completion of project		Adaptation action
	17. Acreage restored or brought under forests		Grenada Strategic Programme for Climate Resilience Document
Coastal management	18. Nature of threats to coastal areas <sup>4</sup>	Port Authority Threat Assessment of Coastal Areas	Vulnerability information

<sup>4</sup> Coined to reflect data available from data source

Sectors	Data or indicators	Data source	Adaptation relevance
Health	19. Number of health facilities refurbished/maintained	Ministry of Health	Depends on whether climate vulnerability has been addressed
	20. Approved updated legislation and standards		
	21. Legislative and regulatory framework updated		
	22. Key performance indicators identified		
	23. Number of research projects initiated		
	24. Monitoring and evaluation reports		
Water	25. Number of gallons increase of water storage capacity as a result of the project	Grenada Strategic Program for Climate Resilience (SPCR)	Adaptation action
	26. Number of water sources identified; number of alternative water sources	NAWASA Corporate Plan	Adaptation outputs, but risk of maladaptation
	27. Construction activities for vulnerable infrastructure upgrades and retrofits completed	Climate-Resilient Water Sector in Grenada (G-CREWS) Funding Proposal Document	Resilience of physical infrastructure
	28. Improved awareness by stakeholders (particularly households, hotels, and farmers) of climate impacts in Grenada and the need for water efficiency		Adaptive capacity
	29. Climate and hydrology data acquisition network installed		
	30. Use of climate information products/ services in decision making in climate-sensitive sectors		

Sectors	Data or indicators	Data source	Adaptation relevance
	31. Number of males and females with year-round access to reliable and safe water supply despite climate shocks and stresses		Vulnerability reduced
	32. Water demand (per capita per day) reduced to climate-resilient levels		
	33. Total annual water production before losses is increased to climate-resilient levels		
	34. Number and value of physical assets made more resilient to climate variability and change, considering human benefits		
	35. Water Resources Management Unit established and empowered		Adaptive capacity
	36. Updated climate-responsive water tariff system approved by Cabinet		Adaptation action
	37. Water Resources Management Unit achieved update of selected regulations and policies in cooperation with other government agencies		Depends on content
	38. Institutional and regulatory systems that improve incentives for climate resilience and their effective implementation		Adaptation action
	39. Increased use of rainwater harvesting and storage in the hotel sector	Grenada Strategic Programme for Climate Resilience Document	Adaptation action
	40. Number of gallons increase of water storage capacity as a result of the project		

Sectors	Data or indicators	Data source	Adaptation relevance
Waste	41. Waste diversion rate	Grenada Solid Waste Management Authority	(Diversion to where? Need more details)
Disaster management	42. Number of presentations made by the National Disaster Management Agency to agencies, communities on climate change and mapping hazards and vulnerabilities.	Grenada Strategic Programme for Climate Resilience Document	Adaptive capacity
Foreign affairs	43. Amount of technical assistance received	Ministry of Foreign Affairs Corporate Plan	Depends strongly on content
Carriacou and Petite Martinique	44. Increased revenue generation/alleviation of poverty through growth in agriculture	Ministry of Carriacou & Petite Martinique Affairs and Local Government Corporate Plan	Depends on type of agriculture and whether climate change has been taken into consideration
Infrastructure	45. Number of kilometres of infrastructure implemented (e.g., road or slope stabilization) to reduce climate change and disaster-induced losses	Grand Bay Community Cistern Refurbishment Project proposal document	Resilience of physical infrastructure

Source: Modified from an internal technical report by consultant Melissa March.

