# Saint Lucia's First National Adaptation Plan Progress Report

NAP Global Network

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# Preface

Saint Lucia's National Adaptation Plan (NAP) has been defined as a 10-year process (2018–2028), consisting of priority cross-sectoral and sectoral adaptation measures for eight key sectors/areas and a segment on the "limits to adaptation," complemented with adaptation strategies and action plans for priority sectors and thematic areas. The identified priority sectors and thematic areas for adaptation action are water, agriculture, fisheries, infrastructure and spatial planning, natural resource management/resilient ecosystems (terrestrial, coastal, and marine), education, health, and tourism (Government of Saint Lucia, 2018a).

Three years into the implementation of Saint Lucia's NAP, there is a need to measure progress in its implementation and to report on this progress to the people of Saint Lucia and the international community, including donors. It is expected that this can help raise further support for Saint Lucia's adaptation priorities.

This opportunity is taken to acknowledge those that have made invaluable contributions toward the completion of this progress report, in particular the Sustainable Development and Environment Division of the Department of Sustainable Development and the NAP Global Network, the secretariat of which is hosted by the International Institute for Sustainable Development. Generous financial support for this progress report was provided by the United Kingdom's Foreign, Commonwealth, and Development Office. The Department of Sustainable Development would also like to acknowledge the consultant, Linda Siegele, who assisted in the compilation of the report.

For further details on those involved in contributing to the monitoring and evaluation process, please see the list of attendees associated with relevant meetings and consultations in the appendices to this report.

# Executive Summary

This National Adaptation Plan (NAP) progress report presents the progress that Saint Lucia has made on adaptation action since the launch of the country's NAP (2018–2028). It highlights the nexus between planned and implemented adaptation actions in Saint Lucia under its NAP and the commitments outlined in its recently updated nationally determined contribution. The findings of this progress report have been used to inform Saint Lucia's Adaptation Communication (AdCom), with the nationally determined contribution and the AdCom feeding into collective reporting for the 2023 Global Stocktake.

Saint Lucia's NAP has been defined as a 10-year process (2018–2028), consisting of priority cross-sectoral and sectoral adaptation measures for eight key sectors and areas, as well as a section on the "limits to adaptation." The ultimate goal of the NAP is to strengthen Saint Lucia's resilience to climate change and to support the implementation of the country's Climate Change Adaptation Policy (CCAP). The NAP document is complemented by eight Sectoral Adaptation Strategies and Action Plans (SASAPs) that cover the country's priority sectors and thematic areas, alongside several other strategies and policies for adaptation financing, action, and communications. The process has benefited from the input of multiple stakeholders, including representatives from the public sector, statutory bodies, academia, the private sector, civil society organisations and bodies, as well as international partners. This process has also involved other state and non-state actors, such as media personnel, who play an important role in helping efforts to positively influence thinking on adaptation, develop strong adaptation outcomes, change behaviour, and instigate action across the populace, at all levels.

This progress report finds that, since its launch in 2018, much has been achieved in Saint Lucia's NAP process—particularly in sectoral adaptation planning. SASAPs form a central component of Saint Lucia's NAP and are designed to outline the key climate vulnerabilities and prioritised actions for adaptation in eight priority sectors and thematic areas, as identified in the NAP through extensive stakeholder consultation. In the first 3 years of the NAP process, SASAPs have been developed in four key sectors: water; agriculture; fisheries; and natural resource management/resilient ecosystems (terrestrial, coastal, and marine). Further SASAPs are planned for infrastructure and spatial planning, education, health, and tourism, each of which is expected to be completed in the next progress reporting period. Additional key sectors and thematic areas will be identified through a cyclical, iterative NAP process, as needed.

Beyond sectoral adaptation plans, the Government, working with stakeholders, has identified the following cross-sectoral adaptation measures that feed into the development, implementation, and monitoring and evaluation (M&E) of the NAP and SASAPs:

- NAP coordination
- Information management
- Research and systematic observation
- Skills building for implementing adaptation
- Institutional strengthening
- Communications and awareness raising

- Resource mobilisation
- Policy, legal, and regulatory frameworks
- NAP monitoring and enforcement.

This 3-year progress report, covering the period 2018 to 2021, is the first effort to track the success of the country's NAP implementation to date. The M&E of Saint Lucia's NAP focuses on tracking the implementation of the cross-sectoral and sectoral adaptation measures included in the NAP and SASAPs, assuming that over time, the successful implementation of these measures will increasingly contribute to attaining the outcomes and overarching goals of the NAP. The main objective of the NAP's M&E system is to enable the Government to track the progress it has made with its partners in the planning and delivery of effective cross-sectoral and sectoral climate adaptation solutions through the NAP process and to continue tracking this progress on a regular basis, where possible, every 3 years.

Progress was measured using simplified questionnaires, administered by the Department of Sustainable Development (DSD), that were distributed to the National Climate Change Committee (NCCC)[1] to provide information on the implementation of NAP measures and non-NAP-specific climate change initiatives, including the securing of climate financing. The information provided in these questionnaires was then further complemented by discussions and explanations in one-on-one and focus group interviews. See Appendix 3 for a list of participants in these interviews.

The DSD, with external support, collated all inputs received, supported the analysis of the data, and assessed the progress made at the sectoral and national levels, as well as in each of the three core areas of the CCAP: adaptation facilitation, adaptation implementation, and adaptation financing. In addition to the NAP Progress Report, annual NAP performance reporting continues to occur at the level of the NCCC, where results are presented by the DSD and other members of the NCCC during periodic meetings of the committee.

The *NAP Progress Report* is a public document available to the people of Saint Lucia and the international community, including donors. More specific to the global climate change process, an express purpose of the *NAP Progress Report* is to inform the development of an AdCom for consideration in discussions around, among others, the Global Goal on Adaptation and for inclusion in the synthesis reporting for the 2023 Global Stocktake.

The analysis of progress in implementing the NAP is divided into sections that highlight key projects by sector and a summary of cross-sectoral measures. Based on the development of this progress report and implementation of the M&E strategy, seven recommendations are included below for further enhancing the NAP progress reporting process.

[1] Following participation in the discussions that culminated in the United Nations Framework Convention on Climate Change (UNFCCC), Saint Lucia ratified the Convention in 1993 and established a Cabinet-appointed NCCC in 1998, comprising public, statutory, academic, and private sector bodies that meets periodically (in person) and engages through electronic means, to discuss, advise on, and guide climate change matters.

**Box ES1. Seven recommendations for further enhancing the NAP progress reporting process**

**Recommendation 1**: Ensure that NAP performance reporting is undertaken, drawing from guidance set out in the M&E plan, with the understanding that it is geared toward simplicity, efficiency, and effectiveness, and is designed to take into consideration any new developments.

**Recommendation 2**: Standardise the reporting process across all priority sectors, either through interventions ex-post by DSD staff or ex-ante through consistent use of the templates set out in the NAP M&E strategy, adjusted appropriately where required.

**Recommendation 3**: Undertake follow-up face-to-face engagement with those agencies, departments, and other stakeholders involved in the review process to evaluate the usefulness of the progress reporting activity for informing the continuing implementation of Saint Lucia's NAP, circumstances permitting, for example, in terms of cost, broader socio-economic impacts, etc.

**Recommendation 4**: As part of NAP performance reporting, review and assess the feasibility of meeting timeframes for short-, medium-, and longer-term measures set out in strategies and action plans.

**Recommendation 5**: Subject to an enhanced climate change staffing contingent, identify and appoint a specific liaison within the DSD for each of the priority sectors and a focal point within that sector with whom the DSD liaison should consult on a quarterly basis, or more often as appropriate.

**Recommendation 6**: Consider holding quarterly informal virtual or in-person individual or group cross-departmental meetings between the DSD and the sectoral focal points to discuss and showcase progress made in implementing the NAP by sector.

**Recommendation 7**: Given the complex nature of the work being undertaken in each sector and the myriad formal and informal relationships that necessarily develop during the implementation process, progress reporting, which would generally include one or more site visits by the contracted consultant, should be resumed post-pandemic.

# Table of Contents

# List of Boxes



# List of Tables

# Abbreviations

| | |
|---|---|
| AdCom | Adaptation Communication |
| BUR | Biennial Update Report |
| CC4Fish | Climate Change 4 Fish |
| CCAP | Climate Change Adaptation Policy |
| CDB | Caribbean Development Bank |
| DSD | Department of Sustainable Development |
| GCF | Green Climate Fund |
| GEF | Global Environment Facility |
| GoSL | Government of Saint Lucia |
| HNAP | Health National Adaptation Plan |
| M&E | Monitoring and Evaluation |
| NIA | National Infrastructure Assessment |
| NAP | National Adaptation Plan |
| NCCC | National Climate Change Committee |
| NDC | Nationally Determined Contribution |
| PPCR | Pilot Programme for Climate Resilience |
| SASAP | Sectoral Adaptation Strategy and Action Plan |
| SDGs | Sustainable Development Goals |
| SLASPA | Saint Lucia Air and Sea Ports Authority |
| UNFCCC | United Nations Framework Convention on Climate Change |
| WASCO | Water and Sewerage Company Inc. |
| WRMA | Water Resources Management Agency |

# 1. Saint Lucia's National Adaptation Plan and Sectoral Adaptation Strategies and Action Plans

## 1.1 Development of Saint Lucia's National Adaptation Plan and Sectoral Adaptation Strategies and Action Plans

Saint Lucia's National Adaptation Plan (NAP) is the starting point for the implementation of coordinated adaptation action at the national level. It is expected that the achievement of the overarching NAP **Goal 1** (To enhance the national enabling environment for climate-related adaptation and risk reduction action within and across the development sectors) will occur largely through the implementation of cross-sectoral measures. **Goal 2** (To accelerate the implementation of climate adaptation and risk reduction actions critical to safeguard the country's socio-economic and environmental systems) will be achieved through the implementation of the sectoral adaptation measures included in the NAP, or in the eight Sectoral Adaptation Strategies and Action Plans (SASAPs), as these are developed and implemented. The NAP process is also supported by several reports, strategies, and policies, including a stocktaking, climate risk and vulnerability assessment report, a NAP communications strategy, a NAP climate financing strategy, a climate change research policy and strategy, and a private sector engagement strategy, among others. These documents are the products of broad stakeholder consultations, literature reviews, and participative planning sessions.

The adaptation measures included in the NAP have been formulated to address identified needs and to directly contribute to the achievement of the two overarching NAP goals mentioned above, as well as a series of strategic objectives, 6 cross-sectoral objectives, and 26 sectoral outcomes. These are all considered essential for Saint Lucia to realise its NAP vision and to achieve the objectives of the Climate Change Adaptation Policy (CCAP).

Saint Lucia's NAP process is being led by the Sustainable Development and Environment Division of the DSD, within the Ministry of Education, Sustainable Development, Innovation, Science, Technology, and Vocational Training. The NAP process is country owned and driven, and it is designed to align Saint Lucia's adaptation priorities and actions with its medium- and long-term development plans. It is an iterative, ongoing process that will change and improve over time to reflect the changing climate and development context, and to reflect adaptation successes, challenges, and failures (Government of Saint Lucia [GoSL], 2018).

Given the foundation that a climate change adaptation policy provides, the NAP process was effectively initiated in 2015 with the adoption of Saint Lucia's CCAP (preceded itself by a consultation process), and the NAP document itself was officially launched in 2018. Development of the NAP benefited from the input of multiple stakeholders, comprising public, statutory, academic, private sector, and civil society representatives, organisations, and bodies, as well as international partners. The process also involved other state and non-state actors, such as media personnel, who play an important role in helping efforts to positively influence public opinion, develop adaptation outcomes, change behaviour, and instigate action at the national and community levels.

The steps taken by the GoSL for the preparation of the NAP have followed the broad recommendations of the technical guidelines prepared by the Least-Developed Countries Expert Group of the UNFCCC (UNFCCC, 2012).

SASAPs form a central component of Saint Lucia's NAP. Priority sectors and thematic areas for adaptation action identified in the NAP through stakeholder consultation are water, agriculture, fisheries, infrastructure and spatial planning, natural resource management and resilient ecosystems (terrestrial, coastal and marine), education, health, and tourism. SASAPs have been completed for water, agriculture, fisheries, and natural resource management/resilient ecosystems (terrestrial, coastal, and marine) to date, with all approved by the Cabinet of Ministers. Efforts are now underway for the development of SASAPs for health, education, and spatial planning and infrastructure, as well as an updated SASAP for tourism. Additional key sectors and thematic areas will be identified through a cyclical, iterative NAP process as needed. The Government, working with stakeholders, has also identified several cross-sectoral adaptation measures that feed into the development, implementation, and monitoring and evaluation of the NAP and SASAPs.

Keeping this context in mind, consultations for the progress report show that much has been undertaken and achieved, especially at the planning level, since the finalisation and launch of the NAP document in 2018.

## 1.2 Methodologies Used to Monitor and Evaluate Saint Lucia's NAP and SASAPs

To measure the Government's progress on its NAP since 2018, simplified questionnaires (see Appendices 1 & 2 for templates) were developed and administered by the DSD, which asked National Climate Change Committee (NCCC) members to provide information on the implementation of NAP measures and non-NAP-specific climate change initiatives, including the securing of climate financing. The information provided in these questionnaires was complemented by discussions and explanations in one-on-one and focus group interviews (see Appendix 3 for a list of participants in these interviews).

The DSD, with external support when needed, collated the input received, supported the analysis of the data, and assessed the progress made at the sectoral and national levels, as well as in each of the three core areas of the CCAP: adaptation facilitation, adaptation implementation, and adaptation financing. Annual NAP performance reporting occurs at the level of the NCCC, presented by the DSD and other members of the NCCC during periodic meetings and shared electronically. The monitoring and evaluation (M&E) process underlying the preparation of this progress report benefited from the input of multiple stakeholders, comprising public, statutory, academic, and private sector bodies, as well as other non-state actors.

## 1.3 M&E System for Saint Lucia's NAP

The M&E system for Saint Lucia's NAP focuses on tracking the implementation of the cross-sectoral and sectoral adaptation measures included in the NAP and SASAPs, assuming that over time, the successful implementation of these measures will increasingly contribute to attaining the outcomes and overarching goals of the NAP. The M&E system will also track progress on the implementation of the CCAP's core elements, including climate facilitation, implementation, and finance.

The main objective of this NAP M&E system is to enable the Government to track the progress made in the planning and delivery of effective cross-sectoral and sectoral climate adaptation solutions through the NAP process and to continue this tracking progress on a regular basis, where possible, every 3 years.

In practical terms, the M&E system will

- Review progress in and steer the implementation of the NAP process, identifying gaps and solutions to address shortcomings.
- Monitor the implementation of cross-sectoral and sectoral measures included in the NAP and requisite SASAPs.
- Become an instrument for the M&E of the CCAP.
- Make the activities conducted as part of the NAP more effective and efficient.
- Increase the visibility of the NAP throughout its implementation by producing and communicating NAP progress and implementation reports at least every 3 years.
- Support reporting to international development partners, the Global Stocktake, multilateral environmental agreements, the Sustainable Development Goals (SDGs), and others, when and where relevant.
- Contribute through continuous learning to the iterative and periodic updating of the NAP and SASAPs, reflecting the successes, challenges, and failures of the facilitation, implementation, and financing of prioritised adaptation actions and changing circumstances.

This M&E system is expected to simplify the monitoring and reporting process. It is also expected to encourage long-term NAP implementation. The system uses some of the information that, since 2012, has been collected in Saint Lucia through the Pilot Programme for Climate Resilience (PPCR) to monitor the integration of climate change considerations into policy and practice and the capacity of Government institutions for undertaking this integration.[2]

Additional experience and lessons learned stem from the implementation of the measurement, reporting, and verification system for preparing biennial update reports (BURs). These BURs provide an update of the latest national communication and provide additional information in relation to mitigation actions taken or envisaged to be undertaken, their effects, and any support needed and received.

[2] The PPCR supports developing countries and regions in building their adaptation and resilience to the impacts of climate change by assisting governments to integrate climate resilience into strategic development planning across sectors and stakeholder groups. Every year, state and non-state stakeholder groups in PPCR countries come together for a scoring workshop to assess progress on multilateral development bank-approved projects, though recent reflections on the PPCR M&E system indicate that it is too time consuming for its use to be sustained without additional future support. It is expected, therefore, that the NAP M&E will resolve this issue and take the lead in tracking national adaptation in Saint Lucia, building on the lessons learned from M&E under the PPCR.

Having learned from implementing the M&E process over the last 3 years, as per the plan, it is expected that appropriate adjustments will be made to improve the simplicity, efficiency, and effectiveness of the M&E system, taking into consideration any new developments to date.

## 1.4. Guiding Policies, Strategies, Legislation, Institutions, Processes, and Reports

The scope of the NAP is bounded by several national policies, strategies, laws, institutions, processes, and associated reports.

**Box 1. Scope of work on adaptation in Saint Lucia**[3]

**Policies and strategies**

- CCAP 2015
- National Energy Policy 2010
- National Energy Transition Strategy 2018
- National Infrastructure Financing Strategy 2021
- Medium-Term Development Strategy 2020–2023
- Other relevant sectoral policies, strategies, and plans in draft and final stages (e.g., those governing water, agriculture, fisheries, forests, planning, infrastructure, education, health, tourism, marine/coastal)

**Legislation**

- Climate change bill (under development)
- Other relevant sectoral legislation in draft and final stages (e.g., regarding water, agriculture, fisheries, forests, planning, infrastructure, education, health, tourism, marine/coastal issues)

**Institutions**

- NCCC

**Processes and reports**

- Formulation, updating, and implementation of Nationally Determined Contributions (NDCs) for 2015 and 2020
- Formulation of National Communications (1st, 2nd, and 3rd completed)
- Formulation of BUR (2021)
- Formulation of Biennial Transparency Report (deadline of 2024)
- Green Climate Fund (GCF) Country Programme (2020)
- Other processes linked to the SDGs, gender initiatives, youth, and the considerations of the limits to adaptation

[3] See Appendix 1 for NAP process-specific documents

# 2. Sectoral Analysis of NAP Progress

## 2.1. Sectors and Cross-Sectoral Adaptation Measures Covered

The sectors and cross-sectoral measures covered by this progress report correspond to those included in Saint Lucia's 2018–2028 NAP/SASAP process, while ensuring that consideration is given to all the NAP supplements not included as sectors, such as Saint Lucia's private sector engagement strategy and climate financing strategy.

Over the first 3 years of the NAP, considerable progress has been made, particularly on the planning front. SASAPs were developed and approved for the water, agriculture, and fisheries sectors, and an additional plan was developed for the thematic area of resilient ecosystems, covering the country's coastal, marine, and terrestrial regions. Additional strategies were developed and received Cabinet endorsement for private sector engagement in the NAP process: climate adaptation financing, communications on climate adaptation, and climate change research. The priority sectors and cross-sectoral measures identified in the NAP are listed below.

**Priority Sectors Identified in the NAP**

- Water
- Agriculture
- Fisheries
- Natural resource management/resilient ecosystems (terrestrial, coastal, and marine)
- Infrastructure and spatial planning
- Education
- Health
- Tourism

**Cross-Sectoral Measures Identified in the NAP**

- NAP coordination
- Information management
- Research and systematic observation
- Skills building for implementing adaptation
- Institutional strengthening
- Communications and awareness raising
- Resource mobilisation
- Policy legal and regulatory frameworks
- NAP M&E

This report focuses on work in the areas of energy, gender, and youth as concrete examples of cross-sectoral work relevant to meeting the objectives of Saint Lucia's NAP.

Consideration in Saint Lucia's NAP is also given to the limits to adaptation, as outlined in Chapter 15. In light of the findings of the Intergovernmental Panel on Climate Change Working Group II's *Sixth Assessment Report on Impacts, Adaptation and Vulnerability* (Pörtner et al., 2022), Chapter 15 likely will receive more attention in upcoming progress reports.

## 2.2 Analysis of Progress by Sector

Significant progress has been achieved in some prioritised sectors since the NAP's inception and launch, and plans are currently in place to match this progress in those sectors where work has not yet commenced over the course of the next reporting period. Progress to date largely focuses on the development of SASAPs for prioritised sectors. An overview of sectoral progress to date is provided in Table 1.

**Table 1. Overview of SASAP development and content**

| SASAP sectors | Published? (Y/N)<br>If Y, year<br>If N, proposed year | Lead agency/agencies | Number of adaptation measures |
|---|---|---|---|
| **Water** | Y<br>2018 | Water Resources Management Agency | 70 adaptation measures and 19 project concepts* |
| **Agriculture** | Y<br>2018 | Department of Agriculture | 45 adaptation measures and 11 project concepts* |
| **Fisheries** | Y<br>2018 | Department of Fisheries | 31 adaptation measures and 10 project concepts* |
| **Infrastructure and spatial planning** | N<br>Proposed 2023/24 | Ministries with responsibility for infrastructure and planning | 16 indicative adaptation measures in the Saint Lucia NAP** |
| **Natural resource management/resilient ecosystems** | Y<br>2020 and called the Resilient Ecosystems Adaptation Strategy and Action Plan (REASAP) | Departments with responsibility for natural resources management, both marine (e.g., Department of Fisheries) and terrestrial (e.g., Division of Forests and Lands Resources) | 58 adaptation measures and 10 project concepts* |
| **Education** | N<br>Proposed 2023/24 | Ministry of Education | 11 indicative adaptation measures in the SLU NAP** |
| **Health** | N<br>Proposed 2022 and called the Health | Ministry of Health | 26 indicative adaptation measures in the SLU NAP** |

| SASAP sectors | Published? (Y/N)<br>If Y, year<br>If N, proposed year | Lead agency/agencies | Number of adaptation measures |
|---|---|---|---|
| | National Adaptation Plan (HNAP) | | |
| **Tourism** | Y, Update proposed 2023/24*** | Ministry of Tourism | 12 indicative measures in the SLU NAP** |

* Project concept note ideas are a reflection of the measures contained in SLU's SASAPs and REASAP. They are not presented in order of priority and are indicative in nature (i.e., not meant to reflect the template of a particular funding entity). They are expected to be enhanced and elaborated on a case-by-case basis, including amalgamation of several into larger projects and programmes, as appropriate. There are many more measures presented per SASAP/REASAP than concept note ideas; this is indicative of an iterative process of concept note idea development, reflective of prioritized measures.

** Indicative adaptation measures aligned with the CCAP are featured in the SLU NAP, along with indicative outputs. Timeframes will be assigned when a SASAP is developed for that sector.

*** The National Strategy and Action Plan (NASAP) for 2020–2030 was developed independently of the NAP/SASAP process, and a SASAP for tourism will be updated in the next reporting period. The NASAP has six goals with accompanying strategies and actions.

## Water Sector

The major adaptation objective for Saint Lucia's water sector, as identified in its SASAP, is "to drive the implementation of effective adaptation actions across all sectors and at all levels of society for safeguarding Saint Lucia's water resources and services under a changing climate" (GoSL, 2018d). Within the water SASAP, four major outcomes, 13 strategic objectives, and 70 adaptation measures have been identified.

**Box 2. Four major outcomes of the water SASAP**

**Outcome 1**. Enhanced enabling environment and improved behaviour for water-related climate adaptation action

**Outcome 2**. Increased water access, availability, and quality

**Outcome 3**. Increased water efficiency and conservation

**Outcome 4**. Strengthened preparedness to climate variability and extremes

The key NAP achievement for the reporting period was the development and adoption of a SASAP for the water sector. An indicative checklist of progress in further short-term measures with an adaptation focus or benefits (2018–2021) is provided below.

**Table 2. Indicative checklist of progress in short-term measures (2018–2021)**

| Major outcome | Nature of the measure | Work initiated and/or completed (Y/N) | Highlights to date |
|---|---|---|---|
| Outcome 1 | Enhancing national policy, legal, and regulatory frameworks | Y | Updated Water Policy for SLU, 2021. |
| Outcome 1 | Building human capacity | Y | Training in<br>Isotope hydrology training: an International Atomic Energy Agency-sponsored initiative in 2021.<br>Data Loggers and Communications equipment for the Disaster Vulnerability Reduction Project, an activity under the rehabilitation of the national hydro-met system component (a World Bank project) in 2021.<br>Project proposal finalised and funding secured for training through bilateral assistance from the Government of Mexico: the technical and scientific cooperation project on the "Availability of Water in Quantity and Quality in a Watershed" (to start in early 2022). |
| Outcome 1 | Enhancing public awareness | Y | Project proposal finalised and funding secured from the Caribbean Development Bank (CDB) under the Vieux Fort Water Rehabilitation Project (managed by the Water and Sewerage Company, WASCO): funding includes a public education and awareness component to be implemented in 2022 (executed by the Water Resources Management Agency [WRMA]).<br>Public education and awareness activities occur every year on March 22 in celebration of World Water Day. Undertaken jointly with WASCO and the Forest Division (which celebrates the International Day of Forests on March 21). |
| Outcome 2 | Ensuring accessibility and availability of potable water using sustainable technologies | Y | Discussions and arrangements have concluded to facilitate the Organization of Eastern Caribbean States Commission (and the Caribbean Community Climate Change Centre), partnering with WASCO, to undertake an upgrade of the existing infrastructure at the Vanard Intake and Pumping Station and the Desbarra Water Treatment Facility: This an African, Caribbean and Pacific Group of States and European Union (EU) Global Climate Change Alliance+ Project (procurement is projected to occur in 2022). The focal point agency is WASCO. |
| Outcome 2 | Exploring alternative water sources | Y | The WRMA undertook two site investigations related to requests for groundwater abstractions by private companies. |

| Major outcome | Nature of the measure | Work initiated and/or completed (Y/N) | Highlights to date |
|---|---|---|---|
| Outcome 2 | Improving wastewater management | Y | In late 2021, the WRMA became the focal agency for implementing the Global Environment Facility (GEF) Caribbean Regional Fund for Water Management initiative. The proposal includes improvements to the public facilities in the Canaries Village and the improvement to a farm wastewater management system. The Situational Analysis and National Package were completed in 2021, to be finalized in 2022. |
| Outcome 2 | Improving water quality and pollution control | Y | The GEF Caribbean Regional Fund for Water Management initiative mentioned above includes water quality monitoring activities and a small-scale Vetiver pilot system for bioremediation.<br>Funding secured from CDB under the Vieux Fort Water Rehabilitation Project (managed by WASCO). Includes a component for designing check dams and riverbank stabilization (to be executed by WRMA, with procurement expected in 2022).<br>Assessment and rehabilitation of major rivers in Saint Lucia conceptualized by the Forest and Land Resources Division under the Disaster Vulnerability Reduction Project. Procurement to occur in 2022 and the project to be implemented by the Forest and Land Resources Division. |
| Outcome 3 | Enhancing water conservation measures | Y | Rainwater harvesting enhanced in schools and communities: initiative conceptualized together with the Organization of Eastern Caribbean States Commission under the African, Caribbean and Pacific Group of States and EU Global Climate Change Alliance+ in 2021 for educational institutions in Vieux Fort. Procurement is projected for 2022. Focal point agency: WRMA. |
| Outcome 4 | Enhancing hydrometeorological monitoring and emergency planning | Y | Climate Risk and Vulnerability Assessment and Adaptation Plan of Action for WASCO, adopted in 2018. |
| Outcome 4 | Knowledge management and monitoring systems | Y | Community-based water quality monitoring programme in progress, to be completed in 2022 under the Integrating Land, Water and Ecosystems Management in Caribbean Small Island Developing States Project. |

NOTE: Many of the above-listed measures involve working across sectors, including with WASCO, and the Meteorology Office, and Forestry.

See Section 3 for a description of some key projects for this sector.

## Agriculture Sector

The overarching goal of the SASAP for the agriculture sector is "to overcome the barriers (policy, regulatory, institutional, technical, financial, business, and social) to facilitate the adoption and scaling up of climate-resilient agriculture best practices and businesses for enhancing food and nutrition security in Saint Lucia under a changing climate" (GoSL, 2018b). For the sector, four major outcomes, 14 strategic objectives, and 45 adaptation measures have been identified to achieve this overall objective.

**Box 3. Four major outcomes of the Agriculture SASAP**

**Outcome 1**. Enhanced enabling environment for climate adaptation action in the agriculture sector

**Outcome 2**. Enhanced nutrition, food availability, quality, and security through adaptation in the agriculture sector

**Outcome 3**. Strengthened partnerships for scaling up climate-resilient agriculture

**Outcome 4**. Built adaptive capacity to climate variability and extremes in the agriculture sector

The key NAP achievement for the reporting period was the development and adoption of a SASAP for the agriculture sector.

**Table 3. Indicative checklist of progress in short-term measures (2018–2021)**

| Major outcome | Nature of the measure | Work initiated and/or completed (Y/N) | Highlights to date |
|---|---|---|---|
| Outcome 1 | Research and development of climate-resilient agriculture | Y | Capacity building of farmers and technicians in water use efficiency methods and protected agriculture (greenhouses).<br>Validation of appropriate crop cultivars (drought tolerance and tolerance to waterlogging). |
| Outcome 1 | Enhancing human and institutional capacities | Y | Training of extension officers in climate-smart agriculture (World University Services of Canada). |
| Outcome 2 | Promoting climate-resilient crop and livestock production | Y | Implementation of Building Resilience for Adaptation to Climate Change and Climate Variability in Agriculture in Saint Lucia project. Launched in September 2021.[4] |
| Outcome 2 | Watershed management and soil conservation | Y | Advocacy for use of minimum tillage methods for soil cultivation. |

[4] A roughly USD 10 million project with the goal of building resilience in Saint Lucia's agricultural sector through enhanced adaptive capacities for climate change and climate variability. See Adaptation Fund (2021).

| Major outcome | Nature of the measure | Work initiated and/or completed (Y/N) | Highlights to date |
|---|---|---|---|
| | | | Expansion of agro-forestry using fruit trees, including cocoa under the southeast coast project. |
| Outcome 3 | Engagement with the private sector | Y | Support to private farmers through extension officers continues for crops and livestock. Swine and poultry farmers were specially trained in waste management. All were trained on rainwater harvesting and climate-smart farming techniques.<br>Efforts of Export Saint Lucia to assist farmer groups with development and enhancement of agricultural products for export continue. |
| Outcome 4 | Improving agro-meteorological data monitoring and emergency planning | Y | Multiple stakeholder consultations with Caribbean Institute for Meteorology and Hydrology on topics including<br>• Linking drought indicators and drought impacts in the Caribbean<br>• Drought planning and triggers forum<br>• Drought scenarios forum. |
| Outcome 4 | Scaling up climate-resilient agricultural infrastructure to reduce climate risks | Y | Use of hoop greenhouses under the Seven Crops project to reduce the impact of rainstorms and reduce the impact of UV rays on crop production. |

NOTE: Many of these measures involve working across sectors, including with the WRMA, the Meteorology Office, and Forestry, and include involving rural farming communities and the private sector. While changes in policy, legislation, and regulations are not envisioned in the short term, the updated Water Policy for Saint Lucia, which was driven by water SASAP measures, includes agricultural provisions.

See Section 3 for a description of a selection of key projects for this sector.

## Fisheries Sector

The overall adaptation goal for Saint Lucia's fisheries sector, as described in the sector's SASAP, is "to drive the implementation of effective adaptation actions to strengthen the sustainability of Saint Lucia's fisheries and fishery dependent businesses and the security of fisheries dependent livelihoods under a changing climate" (GoSL, 2018m, p. 10).

**Box 4. Four main outcomes of the Fisheries SASAP**

**Outcome 1**. Enhanced enabling environment for climate adaptation action in the fisheries sector

**Outcome 2**. Enhanced nutrition, food availability, quality, and security through adaptation in the fisheries sector

**Outcome 3**. Strengthened partnerships for building sustainable and resilient fisheries in a changing climate

**Outcome 4**. Strengthened preparedness to climate variability and extremes in the fisheries sector

The key NAP achievement for the reporting period was the development and adoption of a SASAP for the fisheries sector.

**Table 4. Indicative checklist of progress in short-term measures (2018–2021)**

| Major outcome | Nature of the measure | Work initiated and/or completed (Y/N) | Highlights to date |
|---|---|---|---|
| Outcome 1 | Policy improvement, planning, and programme design | Y | A revised National Fisheries Policy 2020–2030 was developed during the reporting period, which mainstreams the overall impact of climate change on the industry.<br>A draft Fish Aggregating Device Fisheries Management Plan and a draft Aquaculture Management Strategy incorporating the principles of the Ecosystem Approach to Fisheries, Climate Change Adaptation, and Disaster Risk Management were produced during the reporting period.<br>An action plan for enhancing coral reef systems within the Pointe Sables Environmental Protection Area toward building resilience to the impacts of climate change was developed during the reporting period. |
| Outcome 1 | Enhancing human and institutional capacities | Y | The Coral Restoration programme delivered training in scuba diving, coral restoration techniques, and basic coral reef ecology using relevant modules from the National Vocational Qualification in Coral Reef Restoration.<br>Training provided under the CC4Fish programme:<br>• Safety-at-sea training<br>• 200 fishers received VHF radios and associated training.<br>• Business skills training for fishers<br>• Study exchange in the region on marine protected areas and fishing cooperatives |

| Major outcome | Nature of the measure | Work initiated and/or completed (Y/N) | Highlights to date |
|---|---|---|---|
| | | | • Proposal development and enhancing access to climate finance through the Green Climate Fund (GCF) (2019)<br>• A GCF Readiness Adaptation planning proposal (approved in 2021) and concept note were developed in parallel to support this measure. |
| Outcomes 2 and 4 | Improving knowledge and communication | Y | Fisheries Early Warning Emergency Response app developed.<br>Coral Restoration Programme: Communications strategy for the nursery and out-planting programmes. |
| Outcome 2 | Hazard mapping and research | Y | A GCF Readiness Adaptation planning proposal (approved in 2021) and concept note were developed in parallel to support this measure. The concept note was submitted to the GCF in 2020, and GCF provided feedback to be addressed in 2021. |
| Outcome 2 | Programme of best practices for fishing vessels | Y | CC4Fish conducted an institutional-level review of the vessel registry information system with a proposal for improvements.<br>Report published: *Opportunities to Promote the Climate Change Resilience of Saint Lucia's Pelagic Fisheries and Value Chains Through Sustainable and Efficient Resource Use* by the Food and Agriculture Organization of the United Nations (FAO), 2021. |
| Outcome 2 | Introducing fuel-efficient technologies/programmes | N | A GCF concept note and Project Preparation Facility application to develop a full proposal including a component to address fuel efficiency in fishing vessels was developed and submitted to the GCF in 2020. The process is ongoing. |
| Outcome 4 | Monitoring and control activities | Y | The Coral Restoration programme developed and completed a monitoring plan during the reporting period to track the progress and performance of out-planted corals.<br>A GCF Readiness Adaptation planning proposal (approved in 2021) and concept note were developed in parallel during the reporting period to support this measure. The concept note was submitted to the GCF in 2020, and it has provided feedback to be addressed in 2021. |

See Section 3 for a description of a selection of key projects for this sector.

## Resilient Ecosystems

A REASAP for terrestrial and marine ecosystems has been developed and approved by Cabinet. The objective of the REASAP is to "drive the implementation of effective actions to safeguard Saint Lucia's natural capital from the impacts of climate change while harnessing biodiversity, ecosystems and ecosystem services to reduce vulnerability and build resilience" (GoSL, 2020b). Three main outcomes, eight strategic objectives, and 58 adaptation measures have been identified to contribute to the achievement of the overall goal.

**Box 5. Three main outcomes of the REASAP**

**Outcome 1**. Enhanced enabling environment for ecosystem-based adaptation and sustainable natural resource management under a changing climate

**Outcome 2**. Enhanced ecosystem integrity for the sustainable supply of essential ecosystem goods and services to society under a changing climate

**Outcome 3**. Strengthened ecosystem-based adaptation and disaster risk reduction

The key NAP achievement for the reporting period was the development and adoption of the REASAP.

**Table 5. Indicative checklist of progress in further short-term measures with adaptation focus or benefits (2020–2023)[5]**

| Major outcome | Nature of the measure | Work initiated and/or completed (Y/N) | Highlights to date |
|---|---|---|---|
| Outcome 1 | Strengthening national policy, institutional, legal, and regulatory frameworks | Y | Accession to the Nagoya Protocol on Access and Benefit Sharing<br>Development of a Coastal Master and Marine Spatial Plan<br>Approval of a National Ocean Policy and Strategic Action Plan |
| Outcome 1 | Environmental research information generation | Y | GHG Inventory and Forest Reference Emission Level submitted to UNFCCC[6] |

[5] Given that the REASAP was adopted in 2020, only part of the reporting timeframe of 2018–2021 (i.e., 2020–2021) will be covered by this report.

[6] A national forest reference emission level is one of the elements to be developed by developing country parties implementing REDD+ activities, expressed as tonnes of $CO_2$ equivalent per year for a reference period against which the emissions and removals from a results period will be compared. It serves as a benchmark for assessing each country's performance in implementing REDD+ activities and needs to maintain consistency with the country's GHG inventory estimates.

| Major outcome | Nature of the measure | Work initiated and/or completed (Y/N) | Highlights to date |
|---|---|---|---|
| | | | Plastic Waste National-Level Quantification and Sectorial Material Flow Analysis[7] |
| Outcome 2 | Scaling up protection and sustainable management | Y | Erosion control demonstration plots initiated under the Integrating Land, Water and Ecosystems Management in Caribbean Small Island Developing States project |
| Outcome 2 | Addressing the drivers of current and future degradation[8] | N | |

NOTE: Given the broad scope of this REASAP, the execution of most of the specific measures is expected to occur because of their inclusion in projects and programmes funded from both national and international sources, and, for each of the short-term measures, the key implementing institutions.

See Section 3 for a description of key projects for this sector.

## Health

The SASAP for this sector is expected to be completed within the next reporting period. It is already underway, and the Pan American Health Organization (PAHO) has partnered with the EU and other institutions from the CARIFORUM region in the implementation of the Strengthening Climate-Resilient Health Systems project.[9] Under one of the project outputs, PAHO and the Caribbean Community Climate Change Centre are charged with guiding countries through the process of preparing HNAPs and project concepts for financing. There are three adaptation outcomes for the health sector, as outlined in the NAP.

[7] As part of the Plastic Waste Free Islands Project, a National-Level Quantification of Plastic Waste and Sectorial Material Flow Analysis in three key sectors (household and commercial, tourism, and fisheries) was undertaken to identify sources, quantities, and pathways of plastic waste generated and leaked per sector in Saint Lucia. Indiscriminately discarded plastic waste material is problematic during heavy rainfall events associated with climate change, usually clogging drains and resulting in floods. Plastics also contribute to GHG emissions.

[8] Examples include activities relating to inappropriate disposal of solid waste, invasive species, negligent or illegal activity, impact of construction, tourism, etc.

[9] For further information on the project, please see PAHO & WHO (n.d.).

**Box 6. Adaptation outcomes for the health sector outlined in the NAP**

**Outcome 1**. Enhanced enabling environment for health-related climate adaptation action

**Outcome 2**. Improved public health under a changing climate

**Outcome 3**. Strengthened preparedness to climate variability and extremes

In all, 26 indicative adaptation measures have been identified under the NAP that are aligned with the CCAP, with indicative outputs. Timeframes will be assigned during the development of the SASAP.

See Section 3 for a description of key projects for this sector.

## Infrastructure and Spatial Planning

The SASAP for this sector is also expected to be developed during the next reporting period. It will be guided in part by the recently published *National Infrastructure Assessment* (NIA) (GoSL, 2020c), with a strong connection to the *National Infrastructure Financing Strategy* (NIFS) (GoSL, 2021a) and the *Country Financing Roadmap*.

**Box 7. Infrastructure outcomes in Saint Lucia's NAP (2018–2028)**

**Outcome 1**. Enhanced enabling environment for climate change adaptation in infrastructure and spatial planning

**Outcome 2**. Strengthened infrastructure to withstand climate impacts

**Outcome 3**. Enhanced infrastructure-based climate adaptation

**Outcome 4**. Strengthened preparedness to climate variability and extremes

In all, 16 adaptation measures have been identified under the NAP that are aligned with the CCAP, with indicative outputs. Timeframes will be assigned when a SASAP is developed for that sector.

See Section 3 for a description of key projects for this sector.

## Education

The SASAP for the education sector is also expected to be developed during the next reporting period and will complement the work done on other SASAPs, including infrastructure.

**Box 8. Four outcomes for the education sector in Saint Lucia's NAP (2018–2028)**

**Outcome 1**. Enhanced enabling environment for climate change adaptation education

**Outcome 2**. Improved and expanded climate change education as the basis for effective adaptation

**Outcome 3**. Professional capacities built for leading future climate adaptation planning implementation

**Outcome 4.** Strengthened preparedness to climate variability and extremes

In all, 11 indicative adaptation measures have been identified that are aligned with the CCAP, with indicative outputs. Timeframes will be assigned when a SASAP is developed for that sector.

See Section 3 for a description of key projects for this sector.

## Tourism NASAP (2020–2030)

An adaptation plan for the tourism sector was developed prior to the launch of Saint Lucia's NAP. That document will be updated during the next reporting period to match the structure of the other SASAPs and to reflect new climate information and data as well as changing vulnerabilities and adaptation priorities.

**Box 9. Adaptation outcomes for the tourism sector included in Saint Lucia's NAP (2018–2028)**

**Outcome 1**. Viable and productive tourism sector through direct interventions and collaborations and synergies with all other sectors.

The overarching outcome is representative of the following three sub-outcomes in the NASAP (2020–2030) for tourism:

1. Improved policy, legal, regulatory, and institutional framework for the tourism sector
2. Improved technical and institutional capacity for the tourism sector
3. Enhanced and improved training and awareness in relation to climate change and the tourism sector.

In all, 12 adaptation measures have been identified that are aligned with the CCAP, with indicative outputs. Timeframes will be assigned when a SASAP is developed for that sector. The SASAP will be aligned with the NASAP for 2020–2030, which has six goals (each with accompanying strategies and actions).

**Box 10. Six goals for the tourism sector**

**Goal 1**. Promoting sustainable tourism

**Goal 2**. Stimulating demand

**Goal 3**. Generating community awareness and involvement

**Goal 4**. Improving, diversifying, and spreading products and experiences island wide

**Goal 5**. Ensuring visitor security, safety, and comfort

**Goal 6**. Organising for effective and well-managed tourism growth

Indicative timeframes for completing each of the activities under each of the goals span three different benchmark years: 2022, 2026, and 2030.

Goal 1 is the most relevant to adaptation-related action and includes both spatial planning and sustainability programmes. The spatial planning programme will include the conducting of a baseline assessment of environmental, economic, and social conditions in key tourist areas of the island, adaptative measures to advance climate resilience, the assessment of current land-use and environmental policies and regulations, and expansion of the number and scope of marine and terrestrial protected areas. The sustainability programme envisions prioritising tourism-related environmental management requirements in the policies, strategies, programmes, and budgets of relevant ministries and executing agencies, and adopting and formalising an appropriate set of sustainable tourism management guidelines.

In both cases, there are activities under each of the two programmes with 2022 completion dates. It should be noted that Goal 3 on generating community awareness and involvement is also potentially very important to the deployment and implementation of adaptation action on the ground, although the activities listed under this goal focus more on fostering investment and entrepreneurship.

See Section 3 for a description of key projects for this sector.

## 2.3 Summary of Cross-Sectoral Work

Making decisions on and implementing effective interventions to reduce climate change risks and integrate adaptation into development planning processes and initiatives requires solid data; the ability to transform the data, as it emerges, into useful and science-based information; and the capacity to manage and use the information to identify, appraise, and prioritise adaptation options. It also requires an enabling policy and regulatory environment and capacities to coordinate, fundraise for, communicate with, and engage stakeholders in the implementation of adaptation actions. Saint Lucia's NAP takes a cross-sectoral approach to address adaptation actions and to utilise cross-cutting opportunities that may arise in the 2018–2028 period. These measures will require the involvement of multiple agencies.

**Box 11. Cross-sectoral outcomes identified in the NAP**

**Outcome 1**. Improved national, legal, and regulatory framework to facilitate climate adaptation across sectors

**Outcome 2**. Increased generation and use of climate information in national and sectoral decision making

**Outcome 3**. Increased capacities to design and implement climate adaptation projects across sectors

**Outcome 4**. Strengthened national capacities for integrating climate adaptation considerations into national development agendas, programmes, and projects

**Outcome 5**. Strengthened preparedness to climate variability and extremes at the sectoral and national levels

There are 40 cross-sectoral adaptation measures aligned with the CCAP and with indicative outputs. These measures follow and include some measures that are already being pursued in part or in full. Some measures may also appear to be sector specific (and in some cases are also included in sectoral plans) but are of value to multiple sectors, warranting their inclusion. The measures comprise a mixture of soft and hard actions, including developing policies and plans, centralising information gathering, incentivising research activities, developing a NAP communications strategy, assessing, mapping, and modelling in areas at risk of being adversely affected by the impacts of climate change, and capacity building and training.

The DSD, as Saint Lucia's Climate Change Focal Point, plays a coordinating, facilitating, mobilising, and enabling role in implementing cross-sectoral measures, in collaboration with key entities such as those with responsibility for planning, infrastructure, disaster risk management, finance, and natural resource management. These and more are part of the NCCC, the inter-agency NAP-coordinating mechanism. Achieving the outcomes associated with the cross-sectoral measures identified in the NAP has included coordination with a broad range of stakeholders, including those involved in economic and social pursuits. Illustrative examples of relevant cross-sectoral activities during the reporting period on energy, gender, and youth follow.

## Energy

Each district in Saint Lucia faces a variety of natural hazards that impact access to and usage of energy. The impacts of these hazards are considerable, especially those from tropical storms, hurricanes, and flooding, which have all become more frequent and intense due to climate change.

While renewable energy and energy-efficiency projects are generally considered to fall into the domain of climate change mitigation, there are several instances where such projects may actually generate significant adaptation benefits, thereby increasing resilience in the face of existing and emerging climate change impacts (GoSL, 2011).

Energy-related measures and outputs are integrated throughout the priority sectors in Saint Lucia's NAP. In addition, the GoSL has decided to include an adaptation component as part of its mitigation-focused NDC to demonstrate its commitment to achieving the targets of the Paris Agreement as well as having in place better mechanisms for adapting to climate change impacts. According to the Intergovernmental Panel on Climate Change, adaptation and mitigation can be understood as complementary components of a country's response to climate change, and adaptation generates larger benefits to small islands when delivered in conjunction with other development activities, including mitigation projects (GoSL, 2020a).

Work has been initiated in the energy space, including in the areas of solar and wind energy generation and energy-efficiency measures. There has been progress made with respect to policy, institutional and regulatory frameworks, capacity building, awareness raising, research, and infrastructure improvements. The following is a selection of energy initiatives that carry with them adaptation benefits in the face of a hazard or disaster, such as infrastructure development, disaster risk management, energy security, capacity building, awareness raising, policy development, livelihood improvement, and green job creation.

**Box 12. Selection of ongoing and planned energy initiatives with adaptation benefits**

- Solar photovoltaics (PV) at the airport, guaranteed by Government to utility with 50% capital investment by utility (ongoing)
- Exploration of thermal potential expected in 2022 (forthcoming)
- Offshore wind project to identify potential offshore wind resources with funds from the World Bank (planned)
- Building housing, lighting, and air conditioning in the public sector (planned)
- Draft revised Electricity Bill in final stages of public consultation (ongoing)
- Early-stage investigations into transitioning to electric vehicles (ongoing)
- Training/certification on solar PV installation and inspection (ongoing)
- Scholarship for women to be mechanical engineers with internship programmes that aim to foster equal employment in the renewable energy sector (planned)
- Energy-awareness month to raise public awareness on energy and energy-efficiency measures (ongoing, held annually)

## Gender

Saint Lucia is one of nine Caribbean countries benefiting from the regional project Enabling Gender-Responsive Disaster Recovery, Climate and Environmental Resilience (EnGenDER) (United Nations Development Programme [UNDP], n.d.-b). This project is supporting the efforts of the GoSL to close existing financing gaps and to leverage sustainable and diverse sources of climate financing with specific attention to financing for gender-responsive and inclusive climate action.

As part of the EnGenDER project, Niagara College Canada, in collaboration with Saint Lucia, undertook institutional and policy reviews of six sectors/thematic areas: health, education, tourism, resilient ecosystems, energy and infrastructure, and spatial planning. The reviews focused on 1) identifying the intersection of gender and climate change in each sector; 2) assessing the institutional capacities and gaps in addressing gender-responsive sector planning; and 3) developing relevant gender-responsive guidelines and tools for use in the development of SASAPs.

Following the institutional and policy analysis, gender assessments were undertaken for each of the six sectors/thematic areas, further exploring the links between gender and climate change. These reports identify practical considerations for prioritising, implementing, and monitoring and evaluating gender-responsive climate action, and the findings will be integrated into the new SASAPs that are to be developed in the next reporting period.

An overall baseline analysis found that the GoSL has demonstrated commitment to inclusive decision making (UNDP, n.d.-b). Saint Lucia's NAP speaks to promoting gender equality in decision making. The draft National Gender Equality Policy Statement prioritises equitable participation and states the objective to

> Create institutional mechanisms and systems that mandate and facilitate effective dialectic and inclusive participation, collaboration and consultation with various stakeholders (including civil society organisations, youth, private sector, academia, vulnerable groups and the media).[10]

The project report also found that inclusive and equitable decision making is supported by a National Mechanism for Gender Equality within the Department of Gender Affairs. Sectors and thematic areas may draw upon that department to assist in establishing an inclusive and consultative process as part of their internal planning mechanism for the development of their SASAP.

The report provides several recommendations for ensuring gender-responsive climate adaptation planning and specifically SASAP development in line with the elements of a gender-responsive NAP process. The report further identified sector-specific recommendations pulled from international best practice documents that could support the GoSL's gender-responsive climate change adaptation planning efforts. Water, agriculture, and fisheries sectors were not considered in the assessment reports, given that these sectors were covered in the gender-based climate resilience analysis for Saint Lucia prepared in partnership with the Caribbean Natural Resources Institute, also under the EnGenDER project.

[10] See Niagara College, Implications of Gender Assessments on SASAPS (August 2021, draft lodged with GoSL).

## Civil Society, Including Youth

The Saint Lucia Chapter of the Caribbean Youth Environment Network (CYEN, n.d.), an active member of the NCCC, along with other community groups, was active in the development of Saint Lucia's CCAP, which establishes the core elements of the country's cross-sectoral and integrated framework for addressing climate impacts and whose publication in 2015 initiated the NAP process. CYEN's current areas of focus, relevant to adaptation and building climate resilience, are as follows (CYEN, n.d.):

- SDGs
- Youth employment
- Education and training
- Climate change and Small Island Developing States
- Water resources management
- Health and wellness
- Environmental biodiversity

Several key projects have been undertaken by the Saint Lucia Chapter of CYEN during the review period (2018–2020). Two completed adaptation initiatives are highlighted in Box 13.

**Box 13. Two completed adaptation initiatives undertaken by the Saint Lucia Chapter of CYEN**

**2019**

**Review of GEF Community-Based Adaptation Projects**[11]

In 2019 CYEN undertook a review of completed community-based adaptation projects funded by the GEF UNDP Small Grants Programme (SGP). This project was established to assess the effects and success of the projects. Five projects were reviewed:

- The Development of Natural Apiculture as the Basis for Sustainable Livelihoods for Farmers with Disabilities in Saint Lucia
- Rainwater Harvesting to Reduce the Impacts of Drought Exacerbated by Climate Change in the Community of Bouton
- Provision of Mobile Water Desalination Facility to Provide Potable Water in Times of Crisis and to Provide a Ready and Reliable Source of Water for Fisherfolk and the Laborie Community in Saint Lucia
- Creating Sustainable Communities—Building Local Capacity for Adaptation to Climate Change and for Managing Related Issues
- Promoting Climate-Smart Practices in Water Storage, Conservation and Management by Farmers in La Pointe, Mon Repos, Micoud, Saint Lucia.

**2020**

**GEF UNDP SGP Knowledge Fair 2020–21**

Knowledge Fair 2020 built on the successes of the same event in 2018 and responded to the need for promoting and undertaking research and innovation work through various means in Saint Lucia. It used the various modalities of learning to ensure that there is the communication of information, the imparting of

[11] For an overview of GEF UNDP SGP-funded projects in Saint Lucia, please see Global Environment Facility (n.d.).

knowledge, and the visioning of sustainable futures, through the lenses of the GEF UNDP SGP focal areas and the SDGs. It was also consistent with the GoSL's declaration of the Decade of Research and Innovation 2018 to 2027.

The theme was Visioning Sustainable Futures—Confronting the Threats of Climate Change and Climate Variability, and the goal was to inform, educate, and motivate citizens of Saint Lucia to aspire to sustainable futures and to address socio-economic inequalities within the context of climate change and variability.

The six specific objectives were to

(i) Provide the opportunity for discussions between civil society organisations, the private sector, and the Government on the elements, framework, and strategies for sustainable futures in the region.

(ii) Present the results of the most recent primary research conducted on Saint Lucia, which will help with understanding the environmental, social, economic, and political threats which should be urgently addressed as people vision alternative futures.

(iii) Present research and innovation from the diaspora as part of a process of motivating people to take risks and undertake research and innovation as an integral part of paving the way to sustainable futures.

(iv) Present environmental and sustainable development projects as visible and viable manifestations of changes that are already occurring at the community level and in various sectors, and that can be adapted and upscaled to respond to individual or national needs.

(v) Select the best organisation for partnering with the GEF SGP UNDP for project implementation.

(vi) Conduct a rigorous and thorough evaluation of the entire project to identify lessons learned and areas for future improvement.

To achieve the project goal and objectives, the GEF UNDP SGP has created a coalition of partners, who have contributed to the project's design and are expected to continue to participate in its implementation. The primary partners are the University of the West Indies – Open Campus; the Iyanola Apiculture Collective; the Saint Lucia National Conservation Fund; the Castries Constituency Council; GoSL and specific members of the private sector. The CYEN will be the project executing/implementation partner.

# 3. Selection of Projects in Priority Sectors

This section describes projects undertaken during the reporting period in each of the priority sectors that were specifically highlighted by key stakeholders in their respective sectors as demonstrating some alignment with (and progress on) the NAP and SASAP, as applicable.

## Water Sector

Securing Saint Lucia's economic growth and development in the near, medium, and long terms requires a good understanding of existing and emerging water-related challenges and of their common and cascading effects across sectors. It also requires the collaboration of all relevant stakeholders to strategically plan and implement urgent actions to build climate resilience in the water sector (GoSL, 2018d).

**Box 14. Projects in the water sector**

**Vieux Fort Water Supply Development Project** (SASAP Outcome 3. Strategic Objective 1. Various Measures)

The project commenced in May 2016 and was largely completed in 2021. It is being implemented by WASCO. The project is being funded by the CDB (counterpart funding from the GoSL and WASCO) at a cost of XCD 65 million (~USD 24 million). The aim of the project was to construct/install new water production, transmission, and storage facilities, as well as non-revenue water reduction measures for the Vieux Fort Water Supply System. Other project components include technical assistance to enhance the operational efficiency of WASCO through the preparation of an energy-efficiency improvement plan and improvement of the management of the Vieux Fort River watershed.

The project had the following main components:

- Infrastructure works (water production facilities: two river intake structures; a treatment plant consisting of sedimentation tanks, rapid dual-media filters, and chlorination facilities; three new pumping stations; 15 km of new high-density polyethylene transmission mains (sizes 450, 350, and 300 mm); and three new storage reservoirs totalling 4,000 $m^3$).
- Vieux Fort water supply System Non-Revenue Water Reduction Programme.
- Capacity building of WASCO (Energy Audit of WASCO Facilities and Water Audit for the Vieux Fort Water Supply System).
- Watershed Management Plan.

**Dennery North Water Supply Redevelopment Project** (SASAP Outcome 3. Strategic Objective 1. Various Measures)

The project commenced in January 2019. This was targeted to be completed within a 12-month timeframe. Work was substantially completed in February 2020. All major infrastructure work for the project is complete.

The project is being implemented by WASCO with the aim of providing basic infrastructure to meet the essential needs of Dennery North residents. The project was further extended to cater to the long-term needs of the Dennery community to the year 2033.

The major components of the project are the construction/installation of

- Treated water transmission/distribution pipelines
- Water storage facilities

- Pumping stations
- Ancillary infrastructure.

Both the Vieux Fort Water Supply Development and the Dennery North Water Supply Redevelopment projects aim to build resilience to climate change through the construction of water storage facilities to ensure a more consistent supply of water during the dry season to meet the needs of consumers and the farming community. Moreover, the infrastructure works on the river intake structure have the aim of enabling better capture of water during the rainy season.

**Supporting Water Conservation and Use of Rainwater Harvesting in Saint Lucia** (SASAP Outcome 2. Strategic Objective 2. Measure 20)

The project's aim was to undertake the development of engineering and technical requirements and a code of practice for rainwater harvesting, together with training contractors and plumbers in the design and construction of rainwater harvesting systems. This will provide an enabling environment for the installation and use of safe, reliable rainwater harvesting systems that will reduce disaster vulnerability with respect to water availability.

Project activities include an economic analysis of the introduction of official incentives for water conservation and rainwater harvesting, including the development of adequate and appropriate fiscal incentives and regimes toward instituting water conservation methods and more widespread rainwater harvesting. This is supported by watershed and wastewater management projects being implemented through the Disaster Vulnerability Reduction Project. This component commenced in 2016 and was completed in 2019.

**Water Policy Update for Saint Lucia** (SASAP Outcome 1. Strategic Objective 1. Measure 3)

This project was implemented under a Organisation of African, Caribbean and Pacific States–EU Natural Disaster Risk Reduction program grant—Measurable Reduction of Disaster Risk Specific to Public Infrastructure in Saint Lucia. The objective of the consultancy was to support the updating of Saint Lucia's Water Policy to incorporate disaster risk mitigation and climate change adaptation. The project commenced in August 2019 and was completed in 2021.

The Water Policy Update for Saint Lucia is presented in two documents. The first, Part 1, is a Strategic Water Sector Review of water resources and water services in Saint Lucia comprising a qualitative assessment of the main achievements and shortcomings of the prior 2004 Water Policy, followed by a discussion of key water issues in Saint Lucia across the hydrological cycle and the value chain of water services, and by a review of the current policy framework in Saint Lucia that should guide the formulation of a new water policy for the country. Part 2 contains a draft proposal for the 2020 Water Policy for Saint Lucia, the strategy for its implementation, and a 5-year consultant support plan. It was prepared based on the Strategic Water Sector Review analysis and conclusions elaborated in Part 1.

## Agriculture Sector

Climate change is expected to affect Saint Lucia's agricultural production, mainly through the direct effects on crop production of increasing temperatures, changes in precipitation patterns (including more frequent and intense drought episodes), increasing storm intensity (and flooding), and high winds. With higher temperatures, climate change could also increase water demand (and reduce supply with more frequent drought) and increase the incidence of pests, weeds, and disease. With changes in temperature and precipitation, shifts in the crop suitability of agricultural land are also to be expected. In addition, longer dry periods and more torrential rains could aggravate land degradation processes (erosion) and increase the risk of landslides in steep areas (GoSL, 2018b).

**Box 15. Projects in the agriculture sector**

**Building resilience for adaptation to climate change and climate variability in agriculture – Saint Lucia**

This USD 9.9 million project was approved in 2019, but due to unforeseen delays, commenced in October 2021. It is being funded by the Adaptation Fund, with the objective of building resilience in the agriculture sector for livelihood security by enhancing capacities to adapt to climate change impacts. More specifically, the project is designed primarily to build the adaptive capacity of agro-ecosystems and reduce threats to livelihoods to address projected decreases in rainfall and more intensive and frequent hydrometeorological events, including droughts. The project will also contribute positively to the growth indicators for agriculture in the Medium-Term Development Strategy. There is also good alignment with the SASAP (2018) to enhance the resilience of farmers and fisherfolk to protect and improve productive assets (soil, water, fisheries, and other marine resources) while focusing on investment in the sector for poverty reduction in rural communities. The project is also responsive to Saint Lucia's NDC. Gender equality will be mainstreamed throughout the project to ensure that it enhances gender equality through its interventions.

The following three integrated components are crucial to the project:

(1) Building the resilience and sustainability of farming systems through interventions for water security, soil conservation, and management.

(2) Establishing green agro-parks, including the use of solar energy, for increased efficiency/resilience in farming systems.

(3) Knowledge management and transfer to build adaptive capacities at the institutional and local levels.

The three components are complementary, as they provide the building blocks for resilience as an ongoing process by (a) building adaptive capacities for resilient farming; (b) establishing a pathway to increased growth rates for resilient well-being of the target population through productivity and competitiveness in intensive farming practices; and (c) improving understanding of the limits of climate adaptation options and timely integration of innovative adaptation measures to avoid or mitigate risks associated with increasing demands on agro-ecosystem services.

**Banana Productivity Improvement Project (BPIP)**

At the beginning of the 2020/2021 financial year, Saint Lucia experienced severe drought conditions. It is estimated that 54% (1,328 acres) of the banana crop was severely impacted by the dry weather conditions. The project was a four-year project (2017–2021) funded by the GoSL and the Taiwanese Technical Mission. The main components of the project include the rehabilitation of banana fields, improved farm drainage, plant nutrition, land development, sustainable finance mechanism, irrigation support, pest and disease control, technical assistance, awareness and training, and capacity building.

**Major Achievements of BPIP: 2020 Climate change related**

1. Training: A total of 38 workshops were conducted covering a wide range of technologies. A total of 2,928 farmers and their workers benefited from these workshops. (Subjects covered included pruning, follower setting, soil fertility management, correct application of inorganic fertiliser, drainage and irrigation, fruit segregation, good husbandry practices, mealy bug control, bunch care, propping, and weed control).
2. Irrigation: BPIP activated, introduced, and installed irrigation systems in the key banana-growing areas of Roseau, RANJU lands, Fond Estate, Piton, Troumassee, Canelles, and Esperance.
3. Drainage: To mitigate the impact of flooding during the hurricane season, 296.5 acres of farmland in low-lying areas were desilted.

4. Risk reduction/diversification: To help farmers build resilience and minimise risk, a diversification programme was promoted by the BPIP. In furtherance of this objective, two germplasm banks were established to supply planting material to farmers. In addition, a total of 2,000 papaya seedlings were distributed.

## Fisheries Sector

The damage to and loss of vital fish nursery and breeding habitats, such as coral, mangrove, and seagrass ecosystems (and the consequent decline in reef fish densities expected with climate change) have already been reported. The predicted increase in sea temperature may drive pelagic species away from the tropics in search of cooler temperatures and could potentially alter breeding and migration patterns. Ensuring food security and nutrition in the medium and long terms will therefore depend on the country's ability to increase food production under a changing climate, which calls for immediate planning and the implementation of effective adaptation, not only in its agriculture section but also in fisheries (GoSL, 2018c).

**Box 16. Projects in the fisheries sector**

**Coral Restoration Project** (Public–Private Partnership for the Saint Lucia Coral Restoration Programme for Resilient Ecosystems and Sustainable Livelihoods, 2019–2020)

The activities in this project focus on restoring the shallow water populations of elkhorn (*Acropora palmata*) and staghorn (*Acropora cervicornis*) corals at sites inside the Soufriere Marine Management Area. Other coral species may also be included, but the initial focus is to establish a sustainable recovery plan for these critically important, fast-growing *Acroporids*. The project aims to maintain and expand coral nurseries to produce approximately 4,000 thousand coral colonies per year that will be planted to selected reefs, with the goal of developing genetically diverse thickets of mature corals capable of spawning and subsequently reseeding nearby shallow reef areas. The genotypes of the corals are determined and tracked to ensure genetic diversity and to allow the selection of the most genetically resilient corals. Some of the components of the nursery and recovery programme include the following:

- Expand coral nurseries and restoration programmes with local partners.
- Propagate second-generation clonal lines of all corals, and use only second-generation corals for restoration programmes.
- Develop a monitoring plan to track the progress and performance of out-planted corals.
- Develop manuals and implement training workshops for local partners.
- Train local partners in scuba diving, coral restoration techniques, and basic coral reef ecology using relevant modules from the National Vocational Qualification in Coral Reef Restoration.
- Develop a communication strategy for the nursery and out planting programmes.
- Develop a sustainable financing mechanism with Sandals Foundation and Sandals Resorts.
- Analysis of coral genotypes by specialist laboratory and coral geneticist.

**Climate Change Adaptation in the Eastern Caribbean Fisheries Sector (CC4FISH)** (1 January 2017–30 September 2021)

The seven countries participating in the CC4FISH project in the Eastern Caribbean—Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, Saint Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago—are highly dependent on the fisheries sector for food security, livelihoods, and household income. The sector is expected to be severely impacted by climate change and variability through slow-onset changes

as well as extreme weather events. Negative impacts from climate change that are already happening in the region include coral bleaching, increasing frequency of high-intensity storms and hurricanes, increased sea level, and sargassum influxes that are disrupting fishing operations, fish landings, and fisher livelihoods.

Saint Lucia has been very active under the CC4FISH project. A vulnerability capacity assessment was improved by conducting studies in three communities for 386 people, with ad hoc communication materials. Different activities were conducted to reinforce the resilience of the fishery sector: safety-at-sea training was carried out, and 200 fishers received VHF radios and associated training. Business skills training was conducted in Saint Lucia for fishers.

Twelve Saint Lucian fisherfolk went on an exchange to Antigua (conch fishers) in February 2019 and to Grenada to marine protected areas and fishing cooperatives. Fish farmers from Saint Lucia and Grenada have attended training and learned from aquaponics farmers in Antigua and Barbuda. To further increase aquaculture resilience, technical assistance was provided to the country to review existing aquaculture facilities, and a work plan was proposed for the improvement of existing sites or construction of new sites and a procurement process initiated.

Different activities supporting the reinforcement of the legal framework are ongoing in Saint Lucia. A draft Fish Aggregating Device Fisheries Management Plan for Saint Lucia and a draft Aquaculture Management Strategy have been prepared, incorporating the principles of the ecosystem approach to fisheries, climate change adaptation, and disaster risk management. CC4FISH has also supported the development of the new Fisheries Policy of Saint Lucia. A Sargassum Management Plan is also being drafted.

**Upcoming Initiatives Prepared and Approved in Reporting Period for Implementation During the Next Reporting Period**

In November 2021, Saint Lucia received approval from the GCF for an Adaptation Planning readiness grant titled Improving the Capacity of the Fisheries Sector in Saint Lucia to Enhance Resilience to Climate Change, with a total budget of USD 680,499. The grant aims to build the technical and institutional capacity of the fisheries sector to adapt to the adverse effects of climate change through the implementation of the Fisheries SASAP. Activities will commence in full between 2022 and 2023. Progress will be captured in the next reporting period.

A GCF Concept Note and Project Preparation Application to develop a full proposal was completed and submitted to the National Designated Authority in February 2022. The full proposal will be developed in 2022–2023. The proposed project builds resilience in Saint Lucia's fisheries against the impacts of climate change and enhances the livelihoods of those reliant on marine ecosystems by (1) transforming fishing and aquaculture practices, (2) strengthening climate-vulnerable hard and soft infrastructure, (3) enhancing ecosystem services, and (4) transforming the market and policy environment that drives the sector.

## Natural Resource Management/Resilient Ecosystems

Saint Lucia possesses an impressive diversity of terrestrial and aquatic biological species and an equally remarkable diversity of ecosystems. The island's two key economic sectors, tourism and agriculture, rely heavily on natural ecosystems and the services they provide. Terrestrial and freshwater ecosystems are vital for filtering pollutants and sediment, especially for the agricultural sector, which relies primarily on rain-fed rivers and healthy watersheds. Soil retention and the provision of clean water are critical services provided by forest ecosystems. Saint Lucia's coral reefs, mangroves, and seagrass meadows along the coastline form a highly interdependent and valuable coastal and marine ecosystem network that protects the shores while providing marine life habitat and tourism attractions (GoSL, 2020b).

**Box 17. Projects under the REASAP**

**Integrating Land, Water, and Ecosystems Management in Caribbean Small Island Developing States Saint Lucia (2017–2020)**

This 3-year project was funded by the GEF at a cost of USD 2,205,446. The project aims to mitigate the poor biophysical conditions (due to unsustainable land management practices) in the Soufriere Watershed, which have impacted the sustainable livelihoods of the population. The major components of the project include the reforestation and rehabilitation of lands along critical reaches in the upper Fond St. Jacques/Migny area, alternative sustainable and viable livelihoods for selected stakeholder groups, development of a suite of project-specific indicators to assist in the objective assessment and monitoring of impacts of the project, capacity building, public awareness, and documentation of best practices.

Major Achievements

- Sustainable livelihood concept notes developed for vanilla, orchid, and edible mushroom production.
- Farm assessments that would inform customised restoration plans were conducted on 109 farms within the watershed.
- Community nursery produced 15,000 forest and tree crop seedlings for distribution to farmers.
- 2 km of degraded riverbanks was planted.

**Roseau Watershed Restoration Project (2018–2021)**

This 3-year project was funded by the CDB at a cost of USD 166,000. The project aims to restore and rehabilitate degraded lands in the upper basin of the Roseau Dam and establish and maintain a nursery to provide seedlings and planting material for the planting of trees.

Major Achievements

- Production of 7,200 new potted plants in Flying Nursery
- 5 ha of degraded lands restored

**Integrated Ecosystem Management and Restoration of Forests on the Southeast Coast of Saint Lucia (2018–2022)**

This 5-year project is being coordinated by the DSD in collaboration with key entities. Project implementation started in January 2020 and is funded by the GEF. The project seeks to address the lack of integrated protection and sustainable management of ecosystems in the southeast coastal area.

Major Achievements (2018–2021)

- Establishment of Project Implementation Unit
- Establishment of project nursery
- Rehabilitation of 17 ha of degraded lands
- Rehabilitation undertaken in Morne Bois Den, Belle Vieux, and Des Cartier
- Restoration of riverbanks in Troumasse, La Ressource, and Malgretoute
- Employment provided for 25 people (rehabilitation workers and persons employed to develop the nursery)
- Conducted public awareness activities on conservation and on the project.

**Plastic Waste Free Islands Project**[12]

The Plastic Waste Free Islands (PWFI) project is a global initiative seeking to make a significant, quantified reduction in plastic waste generation and leakage within the planned project timeframe. PWFI aims to do this by demonstrating effective, quantifiable solutions for addressing plastic leakage from Small Island Developing States, contributing to an overarching goal to drive the circular economy agenda forward and to reduce plastic waste generation and leakage from islands; the six Small Island Developing States are divided evenly between the Pacific and the Caribbean. In the Caribbean region, the project will be working in Antigua and Barbuda, Grenada, and Saint Lucia.

PWFI project outcomes include improved knowledge of waste generation, alongside a measurable increase in policy effectiveness to reduce plastic waste generation and enhance its disposal, and enhanced adoption of plastic leakage reduction measures by tourism, fisheries, and waste management sectors. In these sectors, key stakeholders will include Government departments, private sector, civil society, and other non-governmental organisations, as well as local men and women, united in a vibrant learning and leadership network. This will not only support the reduction of waste generation in Saint Lucia but will also utilise and repurpose waste into commercially viable products for sale, thereby generating job opportunities and income.

Major Achievements to Date

- Data collection through a Plastic Waste National-Level Quantification and Material Flow Analysis
- Policy Analysis and the production of policy recommendations to reduce plastic waste
- Support for public awareness on reducing single-use plastics
- Launch of returnable food containers pilot project
- Design of plastic "waste to product" pilot initiative

## Health

Among a wide range of direct, indirect, and cumulative impacts of climate change on public health, it has been anticipated that higher temperatures and changes in rainfall patterns in Saint Lucia may lead to increased heat waves, floods, storms, fires, and droughts. These, in turn, could increase the incidence of injuries, vector-, water-, and food-borne diseases, such as schistosomiasis, cholera, dengue, leptospirosis, and yellow fever. Malnutrition, respiratory disease, and cardio-respiratory diseases could also see higher incidence rates. Additionally, climate change could also directly affect exposed health system infrastructure (GoSL, 2018a).

[12] In 2019, the Centre for International Environmental Law estimated that the production and incineration of plastic would add 850 million metric tons of GHGs to the atmosphere—equivalent to 189 coal-fired power plants, which could rise by 2050 to 2.8 gigatons of carbon dioxide per year, or 615 coal plants' worth. For a description of outcomes for the policy analysis resulting from the PWFI in the Caribbean, please see International Union for Conservation of Nature (2021).

**Box 18. Projects under the HNAP**

**The SMART Health Care Facilities Project** (PAHO & World Health Organization [WHO], 2015)

This project is aimed at strengthening facilities in an effort to make them "Safe" against natural hazards and "Green" with sustainable practices and climate-resilient installations (i.e., SMART).

The SMART Health Care Facilities initiative is funded by the British Department for International Development (now the Foreign Commonwealth and Development Office), implemented by PAHO, and instituted at 13 wellness centres across the island. The Ministry of Equity also benefited from the initiative (Comfort Bay – Senior Citizen's Home; Transit Home for Children).

The project has the following benefits:

- Improve the structural safety of health care facilities.
- Reduce energy and water use.
- Boost energy security with low-carbon, renewable sources.
- Improve air quality and reduce harmful emissions.
- Strengthen disease surveillance and control.
- Equip structures with efficient and environmentally friendly appliances and fixtures.

The first phase of retrofitting works to SMART Health Care Facilities was completed in 2019–2020 at several wellness centres around the country.

The following improvements, among others, were made at the wellness centres:

- Upgrading of the rainwater harvesting system to allow captured rainwater to be used for non-potable purposes.
- Additional water storage tanks.
- Installation of metal sinks and low-flow faucets and toilets.

**Strengthening Climate-Resilient Health Systems in the Caribbean (2020–2025)**[13]

This is a regional project, with main partners including PAHO/WHO, its collaborating centres, and relevant regional agencies.

Sixteen participating Caribbean countries will be the principal target groups for this 5-year project (2020–2025), as the project has been formulated with the specific goal of building capacity and networks within the CARIFORUM community.

The overall objectives of this project are to

- Strengthen the resilience of public health systems and services, which ultimately aims at reducing the mortality and morbidity from the expected health consequences of climate change in the Caribbean countries.
- Work in a collaborative manner across organisations and nations to develop innovative products, methods, and actions to prevent negative health consequences.
- Prepare public health plans, programmes, and policies to better adapt to the current unprecedented changes in the CARIFORUM community.

One of the main outputs of this project is that the CARIFORUM countries will develop comprehensive health chapters in their NAP for health and climate change or equivalent document. This document is necessary for countries to strengthen the health system's ability to adapt to climate change, bolster prevention and preparedness, and prioritise adaptation projects among the most vulnerable for implementation.

Saint Lucia was selected to further develop and finalise a draft of the HNAP (SASAP) so that the health and non-health sectors are better positioned to address the impacts on climate change and health. While the

process toward the development of the HNAP commenced during the reporting period, the HNAP is expected to be completed in 2022.

**Enhancing Climate Change Resilience of Health Systems in Seven Caribbean Community (CARICOM) States (GCF Readiness Proposal)** (GCF & WHO, 2020)

In 2019, the Caribbean Action Plan on Health and Climate Change was approved by the Ministers of Health, Environment, and Climate Change of Caribbean countries and territories. The plan addresses the common challenges posed by climate change for health and provides a roadmap for integrated action to protect health and promote sustainable development under a changing climate. This led to the submission of a regional GCF Readiness proposal by WHO/PAHO in 2020 to further support CARICOM member states.

Through this 18-month project, PAHO/WHO will support CARICOM member states in implementing the Caribbean Action Plan. Seven countries are included as direct beneficiaries of the underlying activities: Belize, Guyana (lead), Haiti, Jamaica, Saint Lucia, Saint Kitts & Nevis, and Trinidad & Tobago. The project will aim to "ensure that the region is fully engaged in global climate change processes and agreements ... [and will] benefit Caribbean countries and territories by strengthening their technical cooperation methods, and facilitate the access to human, technical, and financial resources necessary to address the effects of climate change on health."

While progress was made on project development and approval during the reporting period, there have been delays in implementation. The main expected results from the project, once completed, are to

- Strengthen institutional, political, and technical capacities through established and operational health-climate change committees.
- Generate baseline data (e.g., country profiles on health and climate change and a multi-country health vulnerability and adaptation assessment and engage the whole of society in consultations for enhancing health issues integration in national and regional plans and strategies.
- Build a pipeline of projects on health and climate change, and create capacities to prepare and implement project proposals.
- Estimate the health sector's carbon footprint.
- Estimate the health co-benefits and avoided impact economic costs from different emission pathways proposed in national documents.
- Prepare strategies and project proposals for the development of climate and health data integration systems.
- Train national representatives and enhance their technical knowledge and capacities to address climate change and health issues.
- Develop communication strategies for public awareness and outreach on health and climate change.

The direct beneficiaries of the readiness proposal are national designated authorities, health ministries, and climate change focal points in the seven participating CARICOM member states.

## Infrastructure and Spatial Planning

Saint Lucia's size, location, and topography leave critical infrastructure, housing, and livelihoods highly exposed to climate change impacts associated with sea level rise, floods, landslides, stronger storm surges, and high winds from more intense hurricanes, along with beach and shoreline instability (as beaches erode and shorelines retreat). Without adaptation, climate change impacts may, in the long term, lead to radical changes in spatial planning; reduced national economic activity; loss of livelihood

[13] For a summary of this project, please see Caribbean Community Climate Change Centre (n.d.).

opportunities; frequent service and transport disruptions; increased pressure on inland forest reserves to provide land for agriculture when coastal land is lost to erosion and inundation; relocation of infrastructure, housing, and populations; and shifts in land use (GoSL, 2018a).

**Box 19. Projects under infrastructure and spatial planning**

**NIA and NIFS**

The infrastructure modelling undertaken for the NIA (2020) consists of two distinct components: long-term strategic planning and adaptation planning.

The long-term strategic planning component focuses on four interdependent infrastructure sectors: energy, water supply, wastewater, and solid waste, and characterises future changes in demand for these infrastructure types caused by trends in the resident population and tourist arrivals. Though not modelled in the same way, the importance of transport is also emphasised due to its role in providing access to infrastructure services and in increasing demand for other infrastructure types through expansions to international transport hubs.

The adaptation planning component focuses on four relevant climate hazards: sea level rise, storm surges, flash floods, and landslides. This study assesses the direct risk from these four hazards on economic infrastructure (including roads, freight, airports, ports, electricity, water, wastewater, and solid waste), social infrastructure (including health care, education, civic, emergency, food, tourism, finance, manufacturing, retail, and wholesale), and natural environment assets (forests, agriculture, wetlands, barren lands, rangeland, and water-based ecosystems). Adaptation options aligned with those in Saint Lucia's NAP are prioritised.

The NAP involves both sectoral and cross-sectoral measures in eight prioritised sectors to be put into practice over the coming 10 years. To date, implementing and prioritising these measures across sectors and districts of Saint Lucia remains relatively poorly informed. To this end, the NIA identifies priority locations of exposure across sectors, hazards, and areas to help inform adaptation prioritisation.

The NIFS of 2021 provides a robust pipeline of projects to meet long-term infrastructure needs, in line with national development objectives as well as the SDGs and the Paris Agreement. However, obtaining adequate financing to implement these projects remains a challenge. Six focus projects covering the wastewater, water, energy, solid waste, and housing sectors and their implementation are proposed between 2022 and 2028. Finance available for these projects can fund enabling activities and project preparation, along with both capital and initial operating costs. The implementation of the national infrastructure pipeline, including the six focus projects, will require coordinated action across Government ministries and agencies. Ongoing financing initiatives in Saint Lucia, including the Country Financing Roadmap for the SDGs initiative,[14] can be leveraged to attract private sector financing. This includes areas of shared focus, for example, renewable energy generation and energy-efficiency projects.

**Planning for the Integration of Climate Resilience in the Road Transport Sector in the Borrowing Member Countries of the CDB (2017–2020)**[15]

A climate risk and vulnerability assessment has been carried out in Saint Lucia, Guyana, and Dominica to pilot a new approach to identifying and evaluating the effects of climate change on the road transport sector, which can then be utilised across the borrowing member countries of the CDB. This analysis and an

[14] The CFR is a government-led initiative that serves to identify and develop strategies to bridge the financing gap for immediate and longer-term national development priorities in line with the SDGs, by formulating joint action plans to attract greater investment.

[15] For information on this project, please see CDB (n.d.).

institutional assessment have been combined into an investment plan for each country to improve the resilience of the road transport sector.

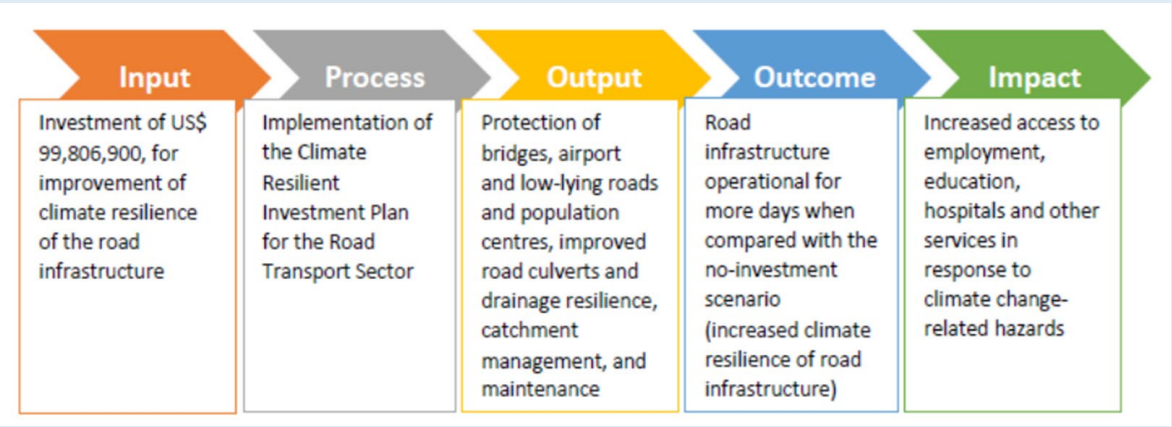
Tasks under the project included

- Assessment of the vulnerability of key infrastructure and assets in the road transport sector by developing a climate risk and vulnerability assessment of the sector of each country.
- Assessment of the adaptive capacity in the road transport agencies and other key institutions and recommendations for strengthening.
- Preparation of a climate-resilient investment plan that will include priority infrastructure investments as well as proposals and strategies to deliver the identified adaptation options.
- Gender-sensitive climate screening of relevant policies, plans, and strategies in the sector and recommendations for integrating resilience.
- Development of a road transport sector resilience index to measure progress on adaptation.

The Investment Plan

1. Institutional strengthening
2. Climate-resilient road asset management
3. Bridge and river protection
4. Exposure reduction in low-lying roads/population centres
5. Catchment management improvement
6. Enhanced protection in landslide risk hotspots
7. Strategic road culvert and drainage upgrades
8. International airport protection

**Investment Plan Roadmap in Summary**




## Education

Education plays a critical role in transferring and translating scientific knowledge on climate change hazards and potential impacts to individuals and communities, and offers them, through formal and non-formal systems, the elements to plan adaptive responses within their own contexts and possibilities. However, while education can act as a mechanism for igniting climate action, it can also be directly hit by climate hazards. Education discontinuity, especially where a school is located in a hazardous area, occurs during and after extreme hydrometeorological events, such as when schools

close due to emergencies that may or may not directly affect school facilities (for example hurricanes); or simply when water supply is disrupted due to extended dry periods; or as a result of high levels of siltation in reservoirs after strong rainfall events, all of which may become more common as global warming progresses. At the same time, school facilities often double as emergency shelters, protecting vulnerable groups during climate-related disasters (GoSL, 2018a).

**Box 20. Projects in the education sector**

**Education Quality Improvement Project** (EQuIP)[16]

The EQuIP Project aligned with Saint Lucia's Education Sector Development Plan (2015–2020) and was consistent with the Bank's Strategic Plan 2015–2019, which promotes a strategic vision of inclusive and sustainable growth and development. The project, funded by the CDB and GoSL, had three main objectives:

- Integration of renewable energy/energy-efficiency improvements within project schools.
- Greater climate change awareness and resilience through in-service training on the SDGs (July 2019).
- Climate Vulnerability Assessment (CVA) of project schools and the development of prototype guidelines for use in the CVA of schools nationally.

The EQuIP Project will help foster the mechanisms and capacity for improved planning, leadership, and delivery of education services; the rehabilitation, renovation, and/or expansion of physical infrastructure at various education levels; and institutional strengthening and capacity building. The project includes funding for consultancy services to develop a CVA of project schools and development of prototype guidelines for use in CVA of schools nationally.

**Green Architecture Promotion Pilot (GAPP) Toward Building Resilience to the Adverse Effects of Climate Change**[17]

The primary objective of the project was to improve national energy efficiency, increase renewable energy penetration, and reduce GHG emissions, through the implementation of green design principles, green technologies, mobilisation of energy-saving potentials, and the documentation and promotion of best practices in green design. Focus was placed on demonstrating such practices in three schools of different sizes, located in different parts of the island, that also serve as disaster shelters. Secondary benefits of the project included increased resilience to the effects of climate change and natural disasters and improved national food security.

Interventions in three schools around the island included

- Efficient renewable energy generation through the installation of grid-connected solar PV systems with battery storage. These grid-connected PV systems, complete with battery storage, serve as a backup power source for the facility/shelter following an emergency or extreme weather event.
- Water management, including rainwater harvesting, provided non-potable water that is used in efficient toilets/bathrooms and for irrigation. The plumbing for the rainwater system was completely isolated from the potable water plumbing.
- Climate-resilient agriculture through greenhouse infrastructure using gravity-fed irrigation water sourced from harvested rainwater.
- Provide Leadership in Energy and Environmental Design certification training for six technical officers within the GoSL.

[16] See EQuIP Saint Lucia (n.d.).

[17] A project factsheet is available through the Japan-Caribbean Climate Change Partnership (n.d.).

The Department of Education partnered with the Department of Physical Development and the Department of Infrastructure to implement this project. The GoSL used the lessons learned during these pilots as a prototype for future development of residential and school buildings on the island.

**Education for Democratic Citizenship**

The programme focuses on developing soft skills and national pride and was introduced into the curricula of primary and secondary schools in Saint Lucia at the start of the 2017 academic year. The Education for Democratic Citizenship programme is integrated into the education system to equip students with key skills such as problem solving, debating, writing, and discussing controversial issues. It will also help students to develop the attitudes or dispositions necessary for productive citizens, equality, personal responsibility, honesty, and a sense that one's action can make a difference in society. The programme introduces issues related to sustainable development, environment, and climate change issues, including

- Identifying the major issues affecting the environment (climate change, pollution, unplanned development).
- Assessing the negative impact of human activity on the environment (destruction of coral reefs, animal extinction, flooding, land slippage, climate change, rising sea levels, etc.).

## Tourism

Major tourism developments, most of the critical infrastructure and environmental attractions they depend upon, as well as the majority of Saint Lucia's population are concentrated along the coast, and exposed to rising sea levels, coastal erosion, winds, high-energy waves, and storm surges. The dependence on tourism, a sector that places great demands on energy, water, and environmental resources, coupled with the heavy concentration of tourism infrastructure near or on the shore, makes the sector, and by extension, the national economy, vulnerable to climate change.[18]

**Transforming Tourism Value Chains in developing countries and Small Island Developing States to accelerate more resource efficient low carbon development**[19] (2017–2020)

The project aimed to reduce carbon emissions and improve resource efficiency from tourism, by transforming activities and services along the whole supply chain. The 4-year project looked at the entire supply chain for three areas of tourism: accommodation, food/beverages, and events. The key outputs delivered included

- Report to identify "hotspots" (key areas to reduce carbon emissions and improve resource efficiency within the tourism business) for Saint Lucia.
- Trained public officials and private sector staff in sustainable procurement in Saint Lucia.

[18] Tourism Strategy and Action Plan 2020–2030.

[19] While this project is related to reducing emissions reductions associated with the value chains associated with Saint Lucia's tourism industry, it has significant adaptation co-benefits in a number of the priority sectors set out in Saint Lucia's NAP, including water; natural resource management/resilient ecosystems; and infrastructure and spatial planning. For a short summary of the project, please see United Nations Environment Programme (2022). An upcoming 2022 consultancy to identify responsible tourism opportunities on the southeast coast will provide technical support to the DSD to assist with facilitating social and economic development in that region. A complementary proposal to the CDB, scheduled for submission in 2022, aims to unlock private sector investment in key productive sectors, including tourism.

- Developed and launched a Transforming Tourism Value Chains: Low-Carbon and resource efficient action plan for accommodation in Saint Lucia, to reduce GHG emissions and improve resource efficiency, providing recommendations based on the identified hot spots.
- Stakeholder engagement with the Saint Lucia Hotel and Tourism Association to take ownership of project initiatives and to embed the action plans into their own strategic plans, to ensure the longevity of the initiative.
- Analysis of the market readiness of selected sustainable products in Saint Lucia.

The project was funded under the International Climate Initiatives programme, coordinated by UN Environment.

**Preparation of a GCF Concept Note for the Transforming Finance to Unlock Climate Action in the Caribbean programme, CDB**

The concept note proposes a regional programme that will aim to unlock the private sector investment needed to transform Caribbean productive sectors, with a focus on tourism, associated value chains, and energy systems, by catalysing a transformation of finance. The programme will accomplish this by blending GCF and CDB resources to extend concessional lines of credit to development finance institutions, who in turn will on-lend to micro, small, and medium-sized enterprises and homeowners for climate action investments. The programme will simultaneously deliver technical assistance to facilitate programme lending and support the transformation toward climate-informed lending by Caribbean development finance institutions. Stakeholder consultations within Saint Lucia were initiated in 2019, during the development of the concept note. The content note and a project preparation facility application were submitted and approved in 2020. The development of a full proposal commenced in 2021 and is scheduled for submission to the GCF in 2022.

# 4. Conclusions and Recommendations

Saint Lucia's NAP embodies an ambitious, well-considered, and robust 10-year process consisting of a plan that covers key cross-sectoral and sectoral adaptation measures for eight sectors/areas prioritised by stakeholders. The NAP will be complemented with SASAPs for each of these eight sectors, four of which were completed and published during the reporting period (water, agriculture, fisheries, and natural resource management/resilient ecosystems). The NAP and formulated SASAPs contemplate the implementation of priority activities to start in the short term (2018–2021), medium term (2021–2024), and long term (2024–2028), according to their urgency, with the short term being the most urgent. This report covers progress made in implementing priority activities in the short term.

## The M&E Strategy and System

It is still relatively early in the implementation of the 2018–2028 NAP. Much progress has been made from a planning perspective: several SASAPs have been developed, alongside supporting strategies, such as those focused on private sector engagement, research, and climate change communications. While progress has been made in several key sectors on the short-term measures identified in the available SASAPs, the internal M&E processes have yet to be fully rolled out across the responsible Government agencies and departments. The challenge in the next reporting period will be completing any outstanding planning documents and accelerating the shift from adaptation planning to implementation.

The M&E strategy and system set out an indicative yearly schedule, but this is an ongoing, iterative process that will be adjusted as needed based on available manpower and other circumstances, which makes it unlikely that the proposed yearly schedule is realistic.[20] The M&E strategy and system are coordinated by the lead governmental agency or department for each sector. Given the legitimate staffing and other challenges, often unforeseen (e.g., the global pandemic), the GoSL may wish to update the existing M&E strategy and system to accommodate them.

**Recommendation 1**: Ensure that NAP performance reporting is undertaken, drawing from guidance set out in the M&E Plan, with the understanding that it is geared toward simplicity, efficiency, and effectiveness, and is designed to take into consideration any new developments.

**Recommendation 2**: Standardise the reporting process across all priority sectors, either through interventions ex-post by DSD staff or ex-ante through consistent use of the templates set out in the NAP M&E strategy, adjusted appropriately where required.

[20] It is worth noting that the climate change report referenced in the draft Climate Change Bill currently considers it a once-in-3-years undertaking.

## Future Considerations and Preparation for the Next Progress Report Process

This progress reporting process is the first systematic stocktaking that has been compiled on the implementation of Saint Lucia's NAP. Most responsible lead agencies were able to participate in the process, which is a strong indication of the high profile that the NAP has within these agencies. This is despite the restrictions imposed by responses to the global pandemic that have challenged the smooth and consistent operation of public and private institutions, both from a social and economic perspective. While this was not brought out as a defining factor in short-term progress made in the implementation of Saint Lucia's NAP, it should be taken into consideration when evaluating the results.

As GoSL and other relevant stakeholders have become more accustomed to innovating around the challenges brought on by the pandemic, this could be an appropriate time to revisit the timeframes and implementation feasibility of the measures detailed in the NAP and its SASAPs. Face-to-face engagement with those agencies, departments, and other stakeholders involved in the review process would provide an opportunity to re-evaluate priority measures and timeframes. It would also provide all stakeholders with the opportunity to discuss how the next assessment of progress would best serve all stakeholders.

**Recommendation 3**: Undertake follow-up face-to-face engagement with those agencies, departments, and other stakeholders involved in the review process to evaluate the usefulness of the progress reporting activity for informing the continuing implementation of Saint Lucia's NAP, circumstances permitting, such as costs, broader socio-economic impacts, and so on.

**Recommendation 4**: As part of NAP performance reporting, review and assess the feasibility of meeting timeframes for short-, medium-, and longer-term measures set out in strategies and action plans.

Going forward, a central repository for the M&E system's performance reports and supporting documentation housed within the DSD would facilitate the production of more standardised information across sectors. This, combined with systematic reporting on cross-sectoral work, could help with improved collaboration among agencies, including for funding and implementation purposes.

Finally, effective adaptation interventions require an integrated and holistic approach among public and private stakeholders and local communities. Evaluating this effectiveness requires broad experience and understanding of the formal and informal relationships that inevitably develop as these activities are implemented, including ensuring that capacity is built to support the implementation of the NAP and its SASAPs includes not only the acquisition of technological resources but their upkeep and maintenance. Equally important is ensuring that the "humanpower" required is in place to do this.

Therefore, for the preparation of the next progress report, Saint Lucia will give consideration, as circumstances permit, to a team of individuals within the GoSL, under the guidance of the DSD. The second progress report will cover a longer period of sustained adaptation action, and taking an internal team approach would also ensure that the learning inherent in these processes remains in-house and can be built on to inform future action.

**Recommendation 5**: Subject to an enhanced climate change staffing contingent, identify and appoint a specific liaison within the DSD for each of the priority sectors and a focal point within that sector with whom the DSD liaison should consult on a quarterly basis or more often as appropriate.

**Recommendation 6**: Consider holding quarterly informal virtual or in-person individual or group cross-departmental meetings between the DSD and the sectoral focal points to discuss and showcase progress made in implementing the NAP by sector.

**Recommendation 7**: Given the complex nature of the work being undertaken in each sector and the myriad of formal and informal relationships that necessarily develop during the implementation process, progress reporting, which would generally include one or more site visits by the contracted consultant, should be resumed post-pandemic.

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# Appendix 1: Documents produced to date under Saint Lucia's NAP process

- *Saint Lucia's National Adaptation Plan Stocktaking, Climate Risk and Vulnerability Assessment Report 2018*
- *Saint Lucia's National Adaptation Plan Roadmap and Capacity Development Plan 2018-2028*
- *Saint Lucia's National Adaptation Plan (NAP) 2018-2028*
- *Saint Lucia's Climate Change Communications Strategy 2018*
- *Saint Lucia's Sectoral Adaptation Strategy and Action Plan for the Water Sector (Water SASAP) 2018-2028*
- *Saint Lucia's Sectoral Adaptation Strategy and Action Plan for the Agriculture Sector (Agriculture SASAP) 2018-2028*
- *Saint Lucia's Sectoral Adaptation Strategy and Action Plan for the Fisheries Sector (Fisheries SASAP) 2018-2028*
- *Monitoring and Evaluation Plan of Saint Lucia's National Adaptation Planning Process 2018*
- *Saint Lucia's Portfolio of Project Concept Notes for the Water Sector 2018-2028*
- *Saint Lucia's Portfolio of Project Concept Notes for the Agriculture Sector 2018-2028*
- *Saint Lucia's Portfolio of Project Concept Notes for the Fisheries Sector 2018-2028*
- *Guidelines for the Development of Sectoral Adaptation Strategies and Action Plans: Saint Lucia's experience under its national adaptation planning process 2018*
- *Snapshot of Saint Lucia's NAP 2018*
- *Snapshot of Saint Lucia's Water SASAP 2018*
- *Snapshot of Saint Lucia's Agriculture SASAP 2018*
- *Snapshot of Saint Lucia's Fisheries SASAP 2018*
- *Saint Lucia's Climate Financing Strategy under the national adaptation planning process 2020*
- *Saint Lucia's Private Sector Engagement Strategy under the national adaptation planning process 2020*
- *Saint Lucia's Resilient Ecosystems Adaptation Strategy and Action Plan 2020-2028*
- *Saint Lucia's Portfolio of Project Concept Notes for Resilient Ecosystems 2020-2028*
- *Snapshot of Saint Lucia's Resilient Ecosystems Adaptation Strategy and Action Plan*

- *Saint Lucia's Climate Change Research Policy and Climate Change Research Strategy under the national adaptation planning process 2020*
- *Saint Lucia’s National Adaptation Plan Progress Report: 2018-2021*

# Appendix 2. Questions to Guide Input Into Focus Group Session for Sectors With Sectoral Adaptation Strategies and Action Plans

| | Questions to measure progress for the period from 2018–2021 | Answer for reporting period (2018–2021) | Comments |
|---|---|---|---|
| **1** | Were you involved in the formulation and/or implementation of a SASAP for your sector/area between 2018–2021? If so, which one(s)? | | |
| **2** | Has yearly SASAP monitoring and evaluation reporting been conducted? If not, please explain why. | | |
| **3** | Has/have these SASAPs been updated or reviewed to date, including addition or modification of concept notes? If so, please provide input on the results, including any sectoral/area refinement, new or modified concept notes, as well as other outcomes and recommendations. | | |
| **4** | What proportion of major programmes and projects approved between 2018–2021 explicitly include climate considerations relevant to the SASAP(s) with which you are involved? Please list them. | | |
| **5** | What proportion of all legislation, policies, strategies, plans, standards, guidelines, criteria, etc. drafted or reviewed between 2018–2021 explicitly include climate adaptation | | |

| Questions to measure progress for the period from 2018–2021 | | Answer for reporting period (2018–2021) | Comments |
|---|---|---|---|
| | considerations relevant to the SASAP(s) with which you are involved? Please list them. | | |
| **6** | What number of **sectoral** adaptation measures included in the SASAPs were **initiated** during the period from 2018–2021? Please list them. | | |
| **7** | What is the total number of **sectoral** adaptation measures (included in the SASAPs) initiated between 2018–2021 that are **ongoing,** but will be not completed by the end of 2021? Please list them. | | |
| **8** | What is the total number of **sectoral** adaptation measures included in the SASAPs in the period between 2018–2021 that have been **completed**? Please list them. | | |
| **9** | Please identify the **cross-sectoral** adaptation measures[21] included in the SASAP between 2018–2021, and their state of progress, i.e., **initiated** and **ongoing** (anticipated completion date) or **completed** (date of completion). | | |

[21] 1. Improved national, **legal, and regulatory framework** to facilitate climate adaptation across sectors; 2. Increased **generation and use of climate information** in national and sectoral decision-making; 3. Increase **capacities to design and implement** climate adaptation projects across sectors; 4. Strengthen national **capacities for integrating climate adaptation considerations** into national development agendas, programmes and projects; 5. Strengthened **preparedness to climate variability and extremes** at the sectoral and national levels; 6. Increased **funding** for climate adaptation action.

| Questions to measure progress for the period from 2018–2021 | | Answer for reporting period (2018–2021) | Comments |
|---|---|---|---|
| **10** | Please identify the incorporation of the following as they relate to the SASAP(s) with which you are involved:<br>● Vulnerable groups specifically targeted by the SASAP;<br>● Gender-specific measures;<br>● Non-state actors, including the private sector and civil society (national and international). | | |
| **11** | Please identify any sectoral or cross-sectoral climate actions, relevant to your sector, outside of the SASAPs for your sector/area, initiated, ongoing or completed between 2018 and 2021. | | |
| **12** | Please list funders and amounts, where appropriate, secured for climate action in your sector between 2018–2021. | | |

# Appendix 3. Questions to Guide Input Into Focus Group Session for Sectors Without SASAPs

| Questions to measure progress for the period from 2018–2021 | | Answer for reporting period (2018–2021) | Comments |
|---|---|---|---|
| **1** | Were you involved in the formulation and/or implementation of the NAP between 2018–2021? If so, which one(s)? | | |
| **2** | Has yearly NAP monitoring and evaluation been conducted, specific to your sector? If not, please explain why. | | |
| **3** | What proportion of major programmes and projects approved between 2018–2021 explicitly include climate considerations relevant to your sector/area? Please list them. | | |
| **4** | What proportion of all legislation, policies, strategies, plans, standards, guidelines, criteria, etc. drafted or reviewed between 2018–2021 explicitly, relevant to your sector/area include climate considerations? Please list them. | | |
| **5** | What number of **sectoral** adaptation measures included in and outside of the NAP were **initiated** during the period from 2018–2021? Please list them. | | |

| Questions to measure progress for the period from 2018–2021 | | Answer for reporting period (2018–2021) | Comments |
|---|---|---|---|
| **6** | What is the total number of **sectoral** adaptation measures (included in and outside of the NAP) initiated between 2018–2021 that are **ongoing** but will be not completed by the end of 2021? Please list them. | | |
| **7** | What is the total number of **sectoral** adaptation measures included in and outside of the NAP in the period between 2018–2021 that have been **completed**? Please list them. | | |
| **8** | Please identify the **cross-sectoral** adaptation measures[22] that have been implemented between 2018–2021, and their state of progress, i.e., **initiated** and **ongoing** (anticipated completion date) or **completed** (date of completion). | | |
| **9** | Please identify the incorporation of the following as they relate to climate action in your sector:<br>● Vulnerable groups specifically targeted; | | |

[22] 1. Improved national, **legal and regulatory framework** to facilitate climate adaptation across sectors; 2. Increased **generation and use of climate information** in national and sectoral decision-making; 3. Increase **capacities to design and implement** climate adaptation projects across sectors; 4. Strengthen national **capacities for integrating climate adaptation considerations** into national development agendas, programmes, and projects; 5. Strengthened **preparedness to climate variability and extremes** at the sectoral and national levels; 6. Increased **funding** for climate adaptation action.

| Questions to measure progress for the period from 2018–2021 | | Answer for reporting period (2018–2021) | Comments |
|---|---|---|---|
| | • Gender-specific measures;<br>• Non-state actors, including the private sector and civil society (national and international). | | |
| **10** | Please list funders and amounts, where appropriate, secured for climate action in your sector between 2018–2021. | | |

# Appendix 4. Dates and Attendance Lists of Consultation Meetings

## Monday 13 September 2021

### Session 1: 8:30 AM AST

| Names | Organisations | Designation |
|---|---|---|
| John Calixte | Department of Sustainable Development | National Coordinator–South East Coast Project |
| Rochelle Alcee | Department of Sustainable Development | Project Assistant–South East Coast Project |
| Silas Nicholas | Piton Management Area | Manager |
| Joanna Rosemond | Saint Lucia National Trust | Project Coordinator–Natural Heritage |
| Bishnu Tulsie | Saint Lucia National Trust | Director |
| Michael Bobb | Soufriere Marine Management Area | Manager |
| Craig Henry | Saint Lucia National Conservation Fund | Manager |
| Samanthia Justin | Department of Sustainable Development | Chief Technical Officer, GEF Focal Point |
| Michael Bobb | Department of Sustainable Development–Iyanola | Project Coordinator–Iyanola Project |
| Annette Rattigan-Leo | Department of Sustainable Development | Chief Sustainable Development and Environment Officer |
| Dawn Pierre-Nathoniel | Department of Sustainable Development | Deputy Chief Sustainable Development and Environment Officer |
| Maier Sifflet | Department of Sustainable Development | Environmental Engineer |
| Ruth Phillips Itty | Department of Sustainable Development | Climate Finance Adviser |
| Linda Siegele | International Institute of Sustainable Development | Contract Consultant |

## Session 2: 11:00 AM AST

| Names | Organisations | Designation |
|---|---|---|
| Carl Hunter | Saint Lucia Hospitality and Tourism Association | Environmental Committee Chairman |
| Noorani Azeez | Saint Lucia Hospitality and Tourism Association | Chief Environmental Officer |
| Donette Charlery | Department of Economic Development | Assistant Economist |
| Perle Alcindor | Department of Economic Development | Chief Economist (Ag.) |
| Vincent Boland | Saint Lucia Development Bank | Managing Director |
| Jermie Monrose | Ministry of Finance | Research Officer |
| Petriana Daniel | Department of Finance | Research Officer |
| Karolin Troubetskoy | Saint Lucia Natural Conservation Fund | Chair |
| Dawn Pierre-Nathoniel | Department of Sustainable Development | Deputy Chief Sustainable Development and Environment Officer |
| Maier Sifflet | Department of Sustainable Development | Environmental Engineer |
| Ruth Phillips Itty | Department of Sustainable Development | Climate Finance Adviser |
| Linda Siegele | International Institute of Sustainable Development | Contract Consultant |

### Session 3: 1:30 PM AST

| Names | Organisations | Designation |
|---|---|---|
| Giannetti George | Department of Education–CAMDU Office | Curriculum Officer–Natural Science |
| Dale St. Juste | Department of Education | Education Officer–Special Needs Education |
| Edith Emmanuel | Department of Education | Project Manager for education–EQUIP |
| Janey Joseph | Department of Gender Relations | Director |
| Lennel Malzaire | Department of Innovation | Director |
| Kurt Prospere | United Nations Development Program | National Coordinator–UNDP |
| Dawn Pierre-Nathoniel | Department of Sustainable Development | Deputy Chief Sustainable Development and Environment Officer |
| Maier Sifflet | Department of Sustainable Development | Environmental Engineer |
| Ruth Phillips Itty | Department of Sustainable Development | Climate Finance Adviser |
| Linda Siegele | International Institute of Sustainable Development | Contract Consultant |

## Tuesday 14 September 2021

### Session 1: *8:30 AM AST*

| Names | Organisations | Designation |
|---|---|---|
| Charlie Prospere | Department of Fisheries | Fisheries Biologist |
| Yvonne Edwin | Department of Fisheries | Fisheries Biologist |
| Vaughn Seriux | Department of Fisheries | Fisheries Officer |
| Makeba Felix | Department of Fisheries | Fisheries Biologist |

| Names | Organisations | Designation |
|---|---|---|
| Lavina Alexander | Department of Sustainable Development | Sustainable Development and Environment Officer |
| Deepa Girdari | Department of Tourism | Tourism Officer |
| Dr. Marie-Louise Felix | Sir Arthur Lewis Community College | Environmental Science Teacher |
| Christopher Alexander | Maritime Affairs-Saint Lucia Air and Sea Ports Authority (SLASPA) | Director |
| Monique Calderon | Department of Fisheries | Fisheries Biologist |
| Paul Cassell | SLASPA | Assistant Registrar |
| Dawn Pierre-Nathoniel | Department of Sustainable Development | Deputy |
| Maier Sifflet | Department of Sustainable Development | Environmental Engineer |
| Jermaine Descartes | Department of Sustainable Development | Sustainable Development and Environment Officer |
| Ruth Phillips Itty | Department of Sustainable Development | Climate Finance Adviser |
| Linda Siegele | International Institute of Sustainable Development | Contract Consultant |

## Session 2: 11:00 AM AST

| Names | Organisations | Designation |
|---|---|---|
| Barry Innocent | Department of Agriculture | Deputy Director |
| Carleen Joseph | Department of Agriculture | Economist |
| Cletus Alexander | Department of Agriculture | Crop Protection Officer |
| Kemuel Jn Baptiste | Department of Agriculture | Chief Extension Officer |
| Silka Tobias | Department of Sustainable Development | Deputy Permanent Secretary |
| Dawn Pierre-Nathoniel | Department of Sustainable Development | Deputy Chief Sustainable Development and Environment Officer |

| Names | Organisations | Designation |
|---|---|---|
| Maier Sifflet | Department of Sustainable Development | Environmental Engineer |
| Jermaine Descartes | Department of Sustainable Development | Sustainable Development and Environment officer |
| Ruth Phillips Itty | Department of Sustainable Development | Climate Finance Adviser |
| Linda Siegele | International Institute of Sustainable Development | Contract Consultant |

## Session 3: *1:30 PM AST*

| Names | Organisations | Designation |
|---|---|---|
| Jason Ernest | WRMA | Director |
| Miguel Montoute | WRMA | Water Resource Scientist |
| Junior Mathurin | WRMA | Field Scientist |
| Luther Tyson | WRMA | Information Systems Manager |
| Nicholai Hyacinth | WASCO | Data Processing Supervisor |
| Rebecca Rock | Forestry | Deputy Chief Forestry Officer |
| Karl Augustine | Forestry | Research Officer |
| Andre Joyeaux | Met Office | Director |
| Dawn Pierre-Nathoniel | Department of Sustainable Development | Deputy Chief Sustainable Development and Environment Officer |
| Maier Sifflet | Department of Sustainable Development | Environmental Engineer |
| Jermaine Descartes | Department of Sustainable Development | Sustainable Development and Environment Officer |
| Ruth Phillips Itty | Department of Sustainable Development | Climate Finance Adviser |

| Names | Organisations | Designation |
|---|---|---|
| Linda Siegele | International Institute of Sustainable Development | Contract Consultant |

## Wednesday 15 September 2021

### Session 1: *8:30 AM AST*

| Names | Organisations | Designation |
|---|---|---|
| Natasha Lloyd-Felix | Department of Health | Director Health Promotion |
| Parker Ragnanan | Department of Health | Chief Environmental Health Officer |
| Kim Newton | Department of Health | Toxicologist |
| Cheryl Eugene-St. Romain | Department of Health | Assistant Chief Environmental Health Officer |
| Jacqueline Matthew | Department of Health | Health Planner |
| Silka Tobias | Department of Sustainable Development | Deputy Permanent Secretary |
| Dawn Pierre-Nathoniel | Department of Sustainable Development | Deputy Chief Sustainable Development and Environment Officer |
| Jermaine Descartes | Department of Sustainable Development | Sustainable Development and Environment Officer |
| Ruth Phillips Itty | Department of Sustainable Development | Climate Finance Adviser |
| Linda Siegele | International Institute of Sustainable Development | Contract Consultant |

### Session 2: 11:00 AM AST

| Names | Organisations | Designation |
|---|---|---|
| Kurt Inglis | Energy Division | Public Utilities Officer |

| Names | Organisations | Designation |
|---|---|---|
| Fabian Lewis | Energy Division | Public Utilities Officer |
| Dawn Pierre-Nathoniel | Department of Sustainable Development | Deputy Chief Sustainable Development and Environment Officer |
| Jermaine Descartes | Department of Sustainable Development | Sustainable Development and Environment Officer |
| Ruth Phillips Itty | Department of Sustainable Development | Climate Finance Adviser |
| Linda Siegele | International Institute of Sustainable Development | Contract Consultant |

## Session 3: 1:30 PM AST

| Names | Organisations | Designation |
|---|---|---|
| Jeanelle Fevrier | Infrastructure | Engineer |
| Sherman Sylvester | Infrastructure | Engineer |
| Haward Wells | NIPP | Head |
| Fabian Felix | NIPP | Civil Engineer |
| Josette Maxwell-Dalsou | Office of the Prime Minister | Programme Officer |
| Gemma Edwin | NIPP | Head |
| Kahil Glasgow | Planning | Physical Planning Officer |
| Leandra Williams | Planning | Physical Planning Officer |
| Nichalan Myers | SLASPA | Deputy Director (Ag.) |
| Dawn Pierre-Nathoniel | Department of Sustainable Development | Deputy Chief Sustainable Development and Environment Officer |

| Names | Organisations | Designation |
|---|---|---|
| Jermaine Descartes | Department of Sustainable Development | Sustainable Development and Environment Officer |
| Ruth Phillips Itty | Department of Sustainable Development | Climate Finance Adviser |
| Linda Siegele | International Institute of Sustainable Development | Contract Consultant |


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