DISASTER RISK REDUCTION IN SAINT LUCIA
SITUATIONAL ANALYSIS 2022
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<tbody>
<tr>
<td>AAL</td>
<td>Annual Average Loss</td>
</tr>
<tr>
<td>CARICOM</td>
<td>Caribbean Community</td>
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<td>CARPHA</td>
<td>Caribbean Public Health Agency</td>
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<td>Caribbean Catastrophe and Risk Insurance Facility</td>
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<td>EIA</td>
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<td>HDI</td>
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<td>Sendai Framework for Disaster Risk Reduction</td>
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### SAINT LUCIA AT A GLANCE

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<tr>
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<td>Global Health Security Index</td>
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EXECUTIVE SUMMARY

Disasters disrupt societies and hinder the trajectory to development. The social and economic impacts of disasters are widespread, causing death, injury, economic and environmental losses, and disruption at varying levels. Saint Lucia is not exempted from these impacts. Its limited capacities that are characteristic of Small Island Developing States, can further widen the social impacts of hazard occurrences. The unseasonal low-level trough of 2013 resulted in 6 deaths, 47 homes destroyed and 2600 persons directly impacted. Saint Lucia’s international tourism-dependent economy creates an inherent vulnerability in the country’s economic landscape, susceptible to exogenous shocks. This became even more prevalent with the COVID-19 pandemic that resulted in a substantial reduction in global tourism. The International Monetary Fund in April 2020 estimated that Saint Lucia’s GDP would contract by 8.5% due to the pandemic. These occurrences reinforce the need for deliberate efforts to reduce disaster risk and build resilience and highlight the need for national policies, strategies and plans that systemically address risk.

This study supports the implementation of the Country Work Programme for Saint Lucia, as well as the design and revisions of other critical national instruments including the National Adaptation Plan, Medium and Long-Term (National) Development Strategies, sectoral policies, strategies and plans, and other supporting national instruments for implementation of the 2030 Agenda. To this end, the report consolidates risk information for Saint Lucia, establishing the country risk profile, analysing the hazard context, existing vulnerabilities, capacities and gaps to determine the priority areas for action and interventions in support of systemic risk governance. The review and recommendations herein will therefore be of particular interest to the stakeholders at the national, subnational, regional and global levels, including state and sectoral entities, private sector organisations, academia, donor agencies, civil society organisations, and other stakeholders interested in understanding the risk environment for Saint Lucia in support of targeted interventions.

The findings have revealed that while hydrometeorological hazards have been prevalent within the national risk landscape, Saint Lucia is also susceptible to earthquakes, volcano hazards, spills, civil unrest and landslides to name a few. Underlying and unregulated development practices further exacerbate the risk profile. Additionally, the threat of climate change and its cascading effects further signify the need for considered efforts that holistically address risk. Much of Saint Lucia’s activities are concentrated along its narrow coastal belt. Essential economic activities which include tourism, transportation infrastructure and other critical infrastructure such as schools and hospitals, lie within the island’s coastal areas, thereby rendering the country significantly susceptible to climate change. The COVID-19 pandemic also serves as a timely reminder of the diverse and systemic nature of risk, and while affecting all countries, disproportionately affects Small Island Developing States and least developed countries, exposing underlying vulnerabilities and lack of coping capacities. Disaster risk reduction must therefore explore the full dimension of risk, addressing the existing vulnerabilities that result in disasters.

Saint Lucia is a signatory to several international and regional mechanisms that form part of the normative framework that governs disaster risk management within the country. These include the United Nations 2030 Agenda for Sustainable Development, Sendai Framework for Disaster Risk Reduction and the Paris Agreement. As a Caribbean Community (CARICOM) member and a Caribbean Disaster Emergency Management Agency (CDEMA) Participating State, the country is also party to regional mechanisms for disaster risk management such as CDEMA Contingency Plans and the Caribbean Resilience Framework. Against this backdrop, meaningful measures have been taken to strengthen the national framework for disaster risk management. These are evidenced within national policy instruments such as the Medium Term Development Strategy (2020-2023), the Disaster Management Policy Framework (2009), the National Adaptation Plan (2018-2028), the United Nations Conference on Trade and Development. 2018. Climate Change Impacts on Coastal Transport Infrastructure in the Caribbean: Enhancing the Adaptive Capacity of Small Island Developing States (SIDS), Saint Lucia: A case study.

and the 2020 Nationally Determined Contribution under the Paris Agreement. The country’s Disaster Management Act of 2006 and its overall multi-sectoral, multi-stakeholder institutional framework also supports its disaster risk management efforts. Saint Lucia’s institutional framework for disaster risk management is symbolic of multi-stakeholder involvement. While the National Emergency Management Organisation is the designated focal point for disaster management activities, the multi-stakeholder, multi-sectoral National Emergency Management Advisory Council and the Hazard Mitigation Council demonstrate the country’s commitment to sound institutional arrangements in support of disaster risk reduction. Sectoral disaster committees and district committees further enhance these arrangements. District Committees comprise civil society and are categorised by geographical locations that oversee community efforts. These meaningful measures highlight the Saint Lucia’s progress towards shared ownership under the Sendai Framework for Disaster Risk Reduction.

Despite these crucial progressive measures to date, this study revealed several areas for strengthening. These include planning for recovery with the aim of “building back better”, and deliberate and enforced activities for mainstreaming disaster risk reduction into development activities. Additionally, there is need for concerted investment in disaster risk reduction. Like many developing countries, Saint Lucia faces significant challenges with data collection, analysis and dissemination, with limited availability of disaggregated data. Data unavailability hinders the process of evidence-based policy and action. These areas, among others must therefore be addressed to strengthen country capacity.

Target 17.14 of the Sustainable Development Goals (SDGs), calls for policy coherence, recognising that climate change and disaster risk must be thoughtfully considered in the development environment. Climate change can exacerbate disaster risk and demands considered efforts for both mitigation and adaptation. Climate change and disaster risk hinder the path to sustainable development. As such, the Sendai Framework for Disaster Risk Reduction and the SDGs advocate for policy coherence, supporting an all of society approach. The Medium Term Development Strategy (2020-2023) serves as a significant entry point for mainstreaming and harmonisation of agendas. The varying vulnerabilities, issues and gaps within the national context of Saint Lucia were used to prescribe medium (outcomes) and short-term (outputs) goals for advancing disaster risk reduction for Saint Lucia and can inform the implementation of the Country Work Programme. Considerations for gender, climate change, ICT and environmental sustainability should be treated as cross-cutting themes, in keeping with the Comprehensive Disaster Management Strategy and Programming Framework 2014-2024.

National policies and strategies must be underpinned by the application of a systemic approach to risk. COVID-19 has heightened the call for systemic risk planning, reinforcing that hazards and their impacts do not occur in silos but instead transcend geographical and sectoral boundaries with other systems, sectors and geographical regions, and can result in cascading impacts that create system challenges and failure. Systemic risk planning must be at the forefront. In its path to recovery and realigning actions to strengthen resilience and regenerate sustainable development, Saint Lucia is provided with an opportunity to increase efforts to advance systemic risk planning by ensuring that risk is integrated into national development and sectoral policies.
Priority Areas for the Implementation of Country Work Programme

Outcome 1—Strengthened institutional arrangements for disaster risk reduction.

Outputs:
1.1 Strengthened institutional arrangements for policy coherence and harmonisation for disaster risk reduction, climate change adaptation and sustainable development.
1.2 Comprehensive Disaster Management (Amendment) Bill finalised and operationalised.
1.3 Risk incentives instituted for mitigation practices, including safe construction.
1.4 Increased investment and capacity building for the NEMO.
1.5 Strengthened institutional arrangements for coordination and collaboration among state stakeholders.
1.6 Increased capital investment in the NEMO to finance disaster risk reduction projects.
1.7 National Disaster Fund operationalised.
1.8 Strengthened financial mechanisms to meet climate change mitigation targets under the Nationally Determined Contribution.
1.9 Building codes enforced.
1.10 Critical facilities protection strategy developed and operationalised.
1.11 National School Safety Policy finalised and operationalised.
1.12 Business continuity planning strengthened across public sector institutions.
1.13 Improved monitoring, evaluation and reporting for targets under the 2030 Agenda.

Outcome 2—Enhanced planning for response, recovery and rehabilitation.

Outputs:
2.1 National recovery and reconstruction policies instituted.
2.2 MHEWS capacity enhanced and the National MHEWS Policy developed and operationalised.
2.3 Training and exercise strategy enforced.
2.4 Improved preparedness for biological hazards and pandemics.

Outcome 3—Increased and sustained knowledge management for disaster risk reduction.

Outputs:
3.1 Improved National Risk Register to account for the broad range of hazards under the hazard taxonomy, and to include the elements of vulnerability and exposure.
3.2 Local knowledge integrated into risk planning and management.
3.3 Enhanced ICT applications and institutional support across stakeholders within the National Statistical System for improved data collection, analysis and dissemination.
3.4 Strengthened capacity for hazard mapping and modelling.
3.5 Enhanced strategy to support public awareness and education for disaster risk reduction.
3.6 Comprehensive disaster management integrated into education curricula at all levels.
Outcome 4-Disaster risk reduction mainstreamed into sectors.

Outputs:

4.1 Increased sectoral investment and capacity building for disaster risk reduction mainstreaming.
4.2 Enhanced planning and integration of disaster risk reduction and climate change adaptation into sectors.
4.3 Medium Term Development Strategy and the Disaster Management Policy Framework enhanced to recognise critical sectors to disaster risk reduction, including water, housing and land-use planning.

Outcome 5-Strengthened community resilience.

Outputs:

5.1 Enhanced activities to support disaster risk reduction at the community level for vertical integration.
5.2 Improved planning for and inclusion of vulnerable groups in disaster risk reduction.
5.3 Community disaster plans developed and operationalised.
5.4 Enhanced arrangements for the operationalisation and sustainability of all District Committees.
1. INTRODUCTION

The Third United Nations Conference on Disaster Risk Reduction in 2015, saw the adoption of the Sendai Framework for Disaster Risk Reduction 2015-2030. The Framework recognises that disaster risk reduction is essential to achieve sustainable development. Target E of the Framework aims to “Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020.” The disaster risk reduction strategy forms the roadmap for targeted activities over a 3-5 year period in support of risk reduction. For Participating States of the Caribbean Disaster and Emergency Management Agency (CDEMA), these are referred to as Country Work Programmes. The Country Work Programme sets out the short, medium and long term results to be achieved in disaster risk reduction, and prescribes a monitoring framework for measuring progress.

This study seeks to inform the implementation of the recently approved Country Work Programme for Saint Lucia, as well as the design and revisions of other critical national instruments including the National Adaptation Plan, Medium and Long-Term (National) Development Strategies, sectoral policies, strategies and plans, and other supporting national instruments for implementation of the 2030 Agenda. The report serves as a compendium of risk information for Saint Lucia, establishing the country risk profile, analysing the hazard context, existing vulnerabilities, capacities and gaps to determine the priority areas for action and interventions in support of systemic risk governance. The review and recommendations will therefore be of particular interest to the stakeholders at the national, subnational, regional and global levels, including state and sectoral entities, private sector organisations, academia, donor agencies, civil society organisations, and other stakeholders interested in understanding the risk environment for Saint Lucia in support of targeted interventions.

1.1 Human and Social Impact of Disasters

Disasters disrupt communities, affecting lives and livelihoods. Moreover, when economies are disrupted, these impacts filter down to the community level. The social impacts of disasters are widespread, causing death, injury and disruption at varying levels. Saint Lucia is not exempted from these impacts. Its limited capacities that are characteristic of Small Island Developing States, can further widen the social impacts of hazard occurrences. The 1948 Castries Fire that destroyed the capital city and the country’s commercial district, resulted in 2000 persons rendered homeless. The unseasonal low-level trough of 2013 resulted in 6 deaths, 47 homes destroyed and 2600 persons directly impacted. A building collapse in 1972 resulted in over 200 injuries and a major traffic accident in 2013 left a mark of 17 deaths and 2 persons unaccounted. While these hazards afford some level of measurability, the Caribbean’s great threat of climate change which carries widespread and transcending impacts, is much less so. Nevertheless, it is widely accepted that climate change impacts are severe, resulting in reduced agricultural yields thereby creating food insecurity challenges; population displacements; ecosystems damage and health implications including undernutrition, heat stress and cardiovascular diseases. Also difficult to measure is the psychosocial impacts of disasters. Post-traumatic stress disorder, emotional instability, stress, anxiety and substance abuse are common occurrences post-disaster. While some persons who suffer these impacts eventually recover, recovery is not always achieved. The social impacts of disasters therefore go beyond the realm of physical losses, and includes impacts to emotional and mental health.

1.2 Economic Impact of Disasters

Saint Lucia’s early economic activity was dominated by agriculture, through the growth and export of bananas. However, over the past few decades, there was a shift from the agrarian-based economy towards a service-based economy concentrated on tourism. Saint Lucia’s rich natural resources have contributed to a vibrant tourism industry that accounted for 60% of the country’s economic...
activity in 2015, with agriculture accounting for merely 3% of its activity at the time (Figure 2). In 2019, the country recorded 1.5% growth in Gross Domestic Product (GDP) and prior to the COVID-19 pandemic, further growth was forecasted at 3.78% for 2020.

Saint Lucia's international tourism-dependent economy creates an inherent vulnerability in the country's economic landscape, susceptible to exogenous shocks. This became even more prevalent with the COVID-19 pandemic that resulted in a substantial reduction in global tourism. The International Monetary Fund in April 2020 estimated that Saint Lucia's GDP would contract by 8.5% due to the pandemic (Figure 2). A case study of Saint Lucia by the Centre for Evidence-Based Medicine further demonstrates the significant and diverse impacts of the COVID-19 pandemic on Saint Lucia's economy. The study concludes that the pandemic resulted in a significant decrease in remittance inflows into the country which when coupled with the collapse of the international tourism industry, disproportionately affected the poor and may have exacerbated income inequality in Saint Lucia.

While at the time of preparation, Saint Lucia is open for tourism with necessary protocols in place, the pandemic is not yet behind. As such, recovery of Saint Lucia's economy is highly dependent on the recovery from the pandemic as a whole.

Saint Lucia has been no stranger to the devastating impacts of natural disasters and significant losses in tourism revenue which has contributed to income inequality in the country.
economic impact of disasters. In 2013, rainfall associated with a low-level trough resulted in USD 89.2 million in losses. In 2010, the cost of Hurricane Tomas accounted for 43.4% of the country’s GDP (USD 350 million), resulting in an estimated USD 336 million in damages\(^{14}\). In 2016, the World Bank Group estimated that Annual Average Loss (AAL) from hurricanes is USD 9.5 million (i.e. 0.7% of GDP) while AAL from earthquakes is USD 2.6 million (0.2% of GDP)\(^{15}\). A report by the World Bank in 2018 found that “On average, in the long term, the Government of Saint Lucia would need to cover losses of approximately USD 15.8 million (EC$42.7 million) annually, – 1.10% of Saint Lucia’s 2015 GDP – to address its contingent liabilities related to floods and hurricanes”\(^{16}\). The slow-onset yet high impact threat of climate change also places the economy of St Lucia at risk. With climate change expected to reduce agricultural yields, it is expected that the sector’s GDP contribution, and overall GDP will further decline. Similarly, the impacts of climate change on the tourism industry are forecast to cost 3.6 to 12 times the country’s 2009 GDP\(^{14}\).

Saint Lucia’s economy is described as “Open, fragile and dependent”\(^{17}\) rendering the country largely susceptible to exogenous shocks. Its dependence on very few sources of income (tourism and agriculture) for much of its GDP, enhances its economic vulnerability. A critical aspect of Saint Lucia’s economy is its inability to effectively recover from disasters. Saint Lucia’s limited financial capacity often renders the country unable to effectively resume the development process in the aftermath of disasters\(^{18}\). The COVID-19 pandemic has presented an equally detrimental economic challenge as a public health one. As such, Saint Lucia is forced to strengthen its economic resilience. In April 2020, the International Monetary Fund estimated that Saint Lucia’s GDP would contract by 8.5% due to the pandemic\(^{19}\). Further estimates in December 2020, projected that the economy would contract by 16.9%\(^{20}\). The Medium Term Development Strategy (2020) provides hope for the country’s economic future but it was developed on the premise that macroeconomic conditions are favourable and the global economy remains stable with growth. As the world continues its fight against COVID-19, economies have been disrupted and are yet to recover to create a favourable economic environment thereby slowing the country’s path to economic resilience.

1.3 Social Demographic Characteristics

In 2015, Saint Lucia recorded a population of 172,623. Of this population, 46.9% were under the age of 30; 12.6% were 60 years and over; and 50.6% were women highlighting a near even ratio of men to women\(^{21}\). Life expectancy in 2012 was recorded at 75.3 and 82.1 years for men and women respectively, an increase from 2007 records thereby suggesting progress in expanding the life expectancy rates. Estimates by the World Bank suggest a population increase from 2015, with a recorded population of 182,790 in 2019\(^{22}\). The country’s population is predominantly African in origin, with large portions of mixed ethnicities and Indian-descent and smaller portions of other ethnicities.

Like many developing countries globally, Saint Lucia has been experiencing increasing rates of urbanisation, with an estimated 41% of the population residing in its capital of Castries. Characteristic of SIDS, Saint Lucia has concentrated coastal populations where many livelihoods are dependent on the coastal zone. Poverty remains one of the underlying development challenges facing the country. While the period 2006-2016 recorded a reduced poverty rate, 2016 estimates by the World Bank show that 20.3% of the population were poor (living below USD 5.50 per day)\(^{23}\). Saint Lucia’s National Adaptation Plan 2018-2028, further premised that poverty in St Lucia is predominantly a rural phenomenon, indicating the disparities within population distribution and vulnerability.

In 2019, Saint Lucia’s Human Development Index (HDI) was recorded at 0.759 (high), placing the country at a rank of 86 out of 189 countries. This value is above the average of 0.753 for countries in the high human development group and below the average of 0.766 for countries in Latin America and the Caribbean. The 2019 female HDI value for Saint Lucia is 0.752 and 0.763 for males, resulting in a Gender Development Index (GDI) value of 0.985, placing it into Group 1 i.e. high equality in HDI achievements between women and men.


\(^{15}\) World Bank Group. 2016. Saint Lucia Hurricanes and Earthquakes Risk Profile

\(^{16}\) World Bank Group. 2018. Advancing Disaster Risk Finance in Saint Lucia

\(^{17}\) Government of Saint Lucia. 2006. Hazard Mitigation Policy


\(^{21}\) Government of St Lucia. 2018.. St. Lucia’s National Adaptation Plan 2018-2028. 2018

\(^{22}\) https://data.worldbank.org/country/LC

1.4 Natural and Landscape Characteristics

Located in the Lesser Antilles of the Caribbean, Saint Lucia's land mass expands 616 square kilometres with a coastal length of approximately 158 kilomotres. The country is bordered by the Caribbean Sea and the Atlantic Ocean, north of Saint Vincent and the Grenadines and south of Martinique. Forest cover dominates the inner areas of the island, accounting for over 70% of the island’s land mass. Saint Lucia has a mountainous terrain, characterised by Mount Gimie, its highest elevation point at 950 metres. Popular peaks, the Pitons, rest at approximately 770 metres high and are the remnants of two lava domes formed in the past. Deep valleys and rivers are also characteristic of its mountainous landscape. The island’s vast river network comprises 37 watersheds.

Saint Lucia's location in relation to the equator and within the North-East Trade Winds belt, lends itself to a tropical maritime climate. Two seasons characterised by rainfall patterns affect the island. The dry season runs from January to May and the rainy season runs from July to December. The rainy season accounts for approximately 60% of the total annual rainfall. Average annual temperature is recorded at approximately 28°C, with a mean maximum temperature of 30.2°C and a mean minimum of 24.6°C. Saint Lucia is also susceptible to tropical cyclone activity within the Atlantic Hurricane Season which spans from June to November annually, creating an overlap with the country’s rainy season. Climate change is a recognised development challenge, especially for SIDS. Climate change projections suggest a trend of increasing mean annual temperatures and decreasing rainfall amounts for Saint Lucia.

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Figure 2: Physical Map of Saint Lucia

https://www.worldometers.info/maps/saint-lucia-map/
2. DISASTER RISK PROFILE

The Inform Risk Index examines three dimensions of risk: hazard and exposure, vulnerability and lack of coping capacity and ranks Saint Lucia as 144 out of 191 countries with an overall risk category of low (2.3) in 2021. The Hazard and Exposure dimension assesses elements of natural and anthropogenic hazards and produces a score of 1.4 (very low) out of 10 (1-10 being from very low risk to very high risk respectively). The Vulnerability dimension considers a country's economic, political and social characteristics that can be destabilised in the event of a hazard occurrence and gives a score of 2.1 (low) for Saint Lucia. Lack of coping capacity which lends to vulnerability, assesses the governance arrangements that aid in reducing disaster risk, producing a value of 3.9 (medium). Despite these values, caution should be exercised in underestimating the nature of risk and the detrimental impacts hazards can have on the country.

Appendix I outlines the risk component data available for Saint Lucia.

2.1 Hazards

Saint Lucia’s geographical location, topography and anthropogenic practices create an intricate risk profile for the island. Hazards when realised, resulted in lives lost, damaged infrastructure, disrupted livelihoods and economies and damaged ecosystems. Saint Lucia has not been spared from its share of hazards. The most common hazards affecting Saint Lucia are floods and tropical cyclones (storms and hurricanes). However, historical data confirms that the country has been susceptible to a wide range of hazards. Recent trends suggest an increasing risk profile for the island. The subsequent paragraphs explore the hazard profile for Saint Lucia. In producing this hazard profile, hazards are considered based on the inclusion criteria outlined within the United Nations Hazard Definition and Classification Review Technical Report, 2020 utilising the eight hazard clusters (Figure 3):

1. The hazard has the potential to impact a community – focuses on hazards that have the potential to impact the population or a community and as such, system-wide risk management is required. This criterion excludes hazards that may have significant consequences at the individual level.

2. Proactive and reactive measures are available – reflects the need to implement practical risk management measures to prevent, reduce, and minimize risks therefore considering that activities can be undertaken before, during and after a hazardous event.

3. The hazard has measurable spatial and temporal components – considers that hazardous events are manifestations of hazards and as such, have temporal and spatial dimensions.

Hydrometeorological hazards such as tropical cyclones and floods are well-documented and realised hazards within the country. Saint Lucia’s position within the Caribbean archipelago has resulted in its exposure to tropical storms and hurricanes. Historically, between the 1700s and 1800s, the country experienced four known tropical cyclones that resulted in 823 lives lost. While historical data trended towards less frequent but more devastating (lives lost) tropical systems, recent data suggest an upward trend in the frequency of topical cyclonic activity though a downward trend in the number of lives lost from the systems. While this indicates some progress in protection measures for persons, tropical cyclone activities result in major infrastructural and financial losses. Moreover, with climate change expected to contribute to increased intensities of tropical cyclones within the Atlantic Hurricane belt, Saint Lucia may not be spared from the widespread and devastating losses that accompany tropical storms and hurricanes. Most recently, Hurricane Tomas in 2010 resulted in USD 350 million in losses and 8 fatalities. In 2013, a low-level trough produced 171.1 millimetres of rainfall in a 24-hour period resulting in significant flooding and landslides on the island. This hazard event resulted in damaged infrastructure (bridge, telecommunications, and water) and disrupted the national water supply system. Drought conditions are also well-recognised within the country’s risk landscape. Drought risk over the years has motivated the development of Water Management Plan for Drought Conditions that lays of the framework for managing droughts. Between 2013-2016, many countries of the Caribbean experienced drought conditions that led to significant water

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32 Inform Risk Index Values: 0 – 2: Very Low 2.1 - 3.5: Low 3.6 - 5: Medium 5.1 - 6.5: High 6.6 - 10: Very High
shortages and reduced agricultural yields, thereby creating knock-on effects and compounding risks. Geological hazards though less prevalent, comprises the country risk landscape. Saint Lucia is home to the Soufrière volcano which is nestled within the southwestern part of the island. The last major eruption of the is estimated to be over 200 years ago however the UWI Seismic Research Centre affirms that the occurrence of earthquake swarms in the area with activity within the sulfur springs indicate that the area is still potentially active and Saint Lucia can still be at risk of future volcanic eruptions. The recent (2021) eruption of the La Soufrière in Saint Vincent and the Grenadines serves as a reminder to the geological activeness of the Caribbean region and the need for disaster risk reduction. Earthquakes also contribute to the geological risk profile of the island. In November 2007, several islands within the Eastern Caribbean, including Saint Lucia, felt the shaking of a 7.4 magnitude earthquake. CDEMA confirms that this earthquake resulted in structural damage across some of the islands, including Saint Lucia.

Biological hazards are even more widespread due to an increasingly global village and the ease of transboundary movement. The COVID-19 pandemic is a reminder of the need for adequate biological hazard planning. Saint Lucia has also been affected by the 1854 cholera epidemic that severely affected some Caribbean countries. The INFORM COVID-19 Risk Index that aims to identify “countries at risk from health and humanitarian impacts of COVID-19 that could overwhelm current national response capacity, and therefore lead to a need for additional international assistance,” placed Saint Lucia at a rating of 3.9 i.e. (Medium Risk), indicating that Saint Lucia is at medium risk from health and humanitarian impacts of COVID-19 that could overwhelm national response capacity, and therefore lead to a need for additional international assistance. Consequently, there is much needed improvement to build country.
capacity to manage pandemics\textsuperscript{41}. While country documents refer broadly to biological hazards (most commonly vector-borne, water-borne diseases and select communicable diseases), the biological risk landscape is diverse. As such, disaster risk planning should consider the wide expanse of biological hazards with adequate considerations for migration patterns and climate change, that augment the nature of these hazards.

Country policies, plans and strategies consistently reference a range of societal hazards including civil unrest, armed conflict and financial shock that can affect the people, resources, systems and institutions of the island. Saint Lucia’s Contingency Plan for Civil Unrest (2010) was motivated by street protests and widespread vandalism. However, although uncommon, civil unrest is not absent from the country’s history. Between 1979 and 1982, political unrest resulted in a riot “Plywood City”, due to the need for persons to use plywood to secure their homes and businesses from rioters and the smashing of windows and doorways. In 1995, the “Banana Wars” among farmers resulted in the death of two persons\textsuperscript{42}.

Where there are development activities involving technological advancements, there will be a risk of technological hazards. Technological hazards for Saint Lucia are documented within plans and policies in the context of infrastructural failure, structural failure and industrial failure or non-compliance relating to fires, explosions and spills. Interestingly however, there is limited evidence within the country framework to support planning and considerations for cyber hazards, including within the National Risk Register. Notwithstanding, there is evidence in support some recognition of these hazards. As the world becomes more digital, expedited by the COVID-19 pandemic, Saint Lucia continues to undertake activities that will govern Information and Communication Technology (ICT) initiatives, including cyber security, which is led by the Division of Public Sector and Modernization under the Department of Public Service\textsuperscript{43}. Fire hazards are etched within the country’s history. The 1948 Castries Fire destroyed 75% of the town and rendered 2,000 homeless\textsuperscript{44}. The fire destroyed the business district and is event known in literature as a poem authored by Saint Lucian poet and writer, Derek Walcott, as “A City’s Death by Fire.”

Chemical hazards are less explored within the country framework, though not unrecognized. Chemical hazards are broadly outlined within the Country Risk Reduction (2014) document and briefly suggested within the National Risk Register (harmful release of chemical substances), but this hazard category is less explored within the framework of the wider hazards for the country. Similarly, the governing risk database, the National Risk Register, also errs in recognising extraterrestrial hazards as a risk (albeit low likelihood) for the country. Within this context, it will be useful for the National Risk Register to adopt the hazard categories within the clusters of the Hazard Taxonomy to ensure adequate consideration is given for the vast nature of hazards to aid in determining interventions.

Saint Lucia is vulnerable to significant impacts of climate change as a result of its location and susceptibility to sea level rise; its socioeconomic conditions as is congruent with SIDS, and its limited resource base. The impacts of climate change can be detrimental to SIDS, with the effects in crucial sectors such as tourism, agriculture, health, fisheries. These impacts can result in cascading impacts at the national and local levels. The cost of inaction is calculated at 12.1% of GDP by 2025, 24.5% by 2050 and 49.1% by 2100\textsuperscript{45}. Consequently, urgent action is required to combat the negative impacts of climate change. All projections point towards a trend of increasing mean annual temperatures and decreasing rainfall amounts\textsuperscript{46}. These climatic extremes, coupled with increased frequencies of extreme weather events, are expected to exacerbate the risk profile of countries. Current climate change forecasts support depleted freshwater resources; increased flood occurrences, heightened risk of drought, increased occurrences of food and vector-borne diseases. Among these, further damage to terrestrial and marine ecosystems will intensify environmental hazard risk. The risk and associated impacts of climate change are not isolated, but interact with other underlying hazards and vulnerabilities to increase the overall risk profile of the country.


\textsuperscript{42} Government of St. Lucia. 2010. Contingency Plan for Civil Unrest.

\textsuperscript{43} Inter-American Development Bank. 2020. Cybersecurity: Risks, Progress and the Way Forward in Latin America and the Caribbean.


2.2 Vulnerability

2.2.1 Social Vulnerability

Social vulnerability considers the socioeconomic and demographic factors that determine individuals' abilities to cope with hazards. This is essential as oftentimes, the socially vulnerable are disadvantaged in disaster situations and are more adversely affected. Vulnerable groups can be defined as “People who cannot comfortably or safely access and use the standard resources in disaster preparedness, relief and recovery.” Factors such as poverty, ethnicity, gender, age, disability, literacy, language and household circumstances contribute to the social vulnerability landscape and render groups at risk. It must be noted however, that social vulnerabilities do not incur in vacuums, but form a complex landscape where the interplay among each other and within the wider context of vulnerability.

Poverty is recognised as one of the main contributing factors to vulnerability but its relationship to the disaster risk environment is intricate. While the economically deprived are less able to invest in disaster risk reduction for mitigation and preparedness, they are also unable to recover effectively. Oftentimes, disasters exacerbate economic disparities among this vulnerable group, rendering them even more vulnerable post-disaster. Despite progress made in reducing poverty rates, in 2016, 20.3% of the population were still considered poor (living below USD 5.50 per day). The National Adaptation Plan (2018) posits that over 50% of the poor were under the age of 20, with the incidence of poverty higher among children than adults. This phenomenon lends to the vulnerability among children. Data for 2015 suggested that unemployment rates were high, approximating to 24%. With economic downturn as a result of the COVID-19 pandemic, it is speculated that unemployment rates may have increased significantly since then.

Gender considerations have been well-recognised in recent years in the disaster risk planning and sustainable development process. Data in 2010 suggested that 40% of households were female-headed. Female-headed households are considered more vulnerable than male-headed households due to the interplay of factors such as income that determine the extent to which disaster mitigation activities can be undertaken and the effectiveness of recovery actions. However, earlier data for the island in 2005, recorded that the incidence of poverty among female headed households was nearly equivalent to the incidence of poverty among male headed households. Furthermore, the study funded by the Caribbean Development Bank found that at the time the overall incidence of poverty was slightly higher among men (29%) than women (25%). While the country has a near-even distribution of women and men (estimated at 50.6% women in 2015), gender considerations are required as a cross-cutting theme within all development strategies and actions. However, Saint Lucia, like many other developing countries, face the challenge of the unavailability of sex disaggregated data to determine the relationship between gender and disaster risk at the community level.

Other vulnerable groups include the elderly, children and persons with disabilities. Specific to Saint Lucia, poverty is prevalent among the younger sects of the youth population, leaving this group disproportionately affected in the face of hazard occurrences. In 2015, the elderly accounted for 12.6% of the country’s population. The elderly are especially vulnerable due to their reduced mobility, diminished sensory capability, underlying chronic health conditions and other socioeconomic factors such as income. Persons with disabilities must also be considered in the context of disaster risk reduction and sustainable development. The 2010 census revealed that Saint Lucia had a population of 12% with disabilities. There have been significant progress in planning for persons with disabilities within the development framework. However, the National Council of and for Persons with Disabilities in 2015, posited that more action is needed in strategic areas such as health, housing, income, awareness building and legislation in support of inclusion and equal rights.

The public health care system is accessible to all citizens within Saint Lucia. The system has a network of 30 healthcare facilities including hospitals and health centers, polyclinics and wellness centers. In 2020, non-communicable diseases accounted for 82% of deaths in the country, thereby suggesting the

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47 Flanagan et al. 2011. A Social Vulnerability Index for Disaster Management
increased need for health and wellness promotion. A 2003 report posited that health system development have not matched economic development in past years54. The study further highlighted that there are barriers and limits to overall access to healthcare, due to affordability challenges. This further suggests the need for strengthening health system capacity. The COVID-19 pandemic has reinforced the need to strengthen the country’s capacity to manage biological hazards. Challenges with supply chains and limited surge capacities must be addressed.

Several national instruments contribute to reducing varying aspects contributing to social vulnerability. These include the Social Protection Policy (2015), the National Adaptation Plan (2018) and the Medium Term Development Strategy (2020). Notwithstanding these progressive steps, there remains an urgent need for detailed analyses of the social dimensions of these vulnerable groups to aid in understanding the intricate interaction of social circumstances and disaster risk, for targeted interventions55.

2.2.2 Physical Vulnerability

Physical vulnerability is defined as “The conditions determined by physical processes which increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards”56.

Population settlement patterns enhance the country’s vulnerability. Increasing urbanisation rates and increasing population densities in informal settlements are characteristic of Saint Lucia57. The National Adaptation Plan estimates that 41% of the population resides in the capital city- Castries- while 55% reside in the urbanised Castries to Gros Islet corridor. The trend of rural to urban migration that contributes to increasing urbanisation rates, has resulted in an increase in demand for housing and unplanned development in the north. Towards the south of the island, squatting settlements have increased due to the availability of state land in the region, however as is characteristic of these settlements, they exacerbate the issue of unplanned development and fail to adhere to basic development standards58. Similarly with Castries, high-density development on the outskirts of the city are unplanned developments58. These informal settlements carry a range of issues including sanitation issues and lack of amenities such as adequate sewer systems and availability of potable water that are characteristic of the economically deprived.

There is evidence of a move towards managing physical development activities which in turn contribute to reducing vulnerability. Chief of these is the Physical Development and Planning Act of 2001 which is also supported by the National Land Policy (2007). The Medium Term Development Strategy (2020) also provides a valuable entry point for improved development planning as sustainable development underpins the Strategy. While the Hazard Mitigation Policy (2006) speaks to the National Building Code that was developed to guide construction to improve the quality of structures, several articles including the National Adaptation Plan (2018), continue to highlight the challenge of building codes58, suggesting a lack of regulatory and legislative enforcement.

The private sector is a key stakeholder to reducing physical vulnerability and ensuring resilience. Traditionally, the telecommunications sector in the Caribbean region has proven to be a critical stakeholder in hurricane/tropical storm response, including warning dissemination, and recovery aspects supported by the private sector59. In this context, telecommunications infrastructure is critical in disaster response and recovery, although often incurring significant damage during hazard events. With the advent of COVID-19, the role of the private sector, and more specifically, telecommunication service providers, became even more crucial to ensuring business continuity across sectors and institutions60. Yet, for Saint Lucia, it was estimated that only approximately 50% of households were with internet access, below the average for the Caribbean61. Investing in resilient infrastructure, therefore extends beyond the conventional realm of sustainability and redundancy for times of crisis but must also ensure resilient private sector infrastructure to meet the needs and demands of communities and institutions to enable recovery.

56 Amended from United Nations Officer for Disaster Risk Reduction
Natural ecosystems have been negatively impacted by development pressures and constant conflict between the socioeconomic development agenda and environmental protection. Deforestation encroaching on the island’s mountainous terrain has exacerbated the risk of landslides. This risk is further compounded when erosion increases on these areas of bare soil that in turn increases flood risk and leads to further environmental degradation of the coastal environment due to downstream effects such as eutrophication. These occurrences create ripple effects to the socioeconomic structure of the island, highlighting the intricate and systemic nature of risk. Other socioeconomic activities such as tourism and unregulated or improperly planned settlements also threaten the viability of terrestrial and marine ecosystems on the island. These anthropogenic impacts to the natural environment, erode the capacities of the natural systems to cope with and recover from these effects. Several institutions and legislations have been established in support of sustainable environmental practices and environmental protection (Appendix II). Even with the presence of these instruments, there is still an urgent need to strengthen efforts to minimise vulnerability. The 2014 Disaster Vulnerability Reduction Project found that there are ambiguities among institutions with responsibilities for environmental management, highlighting specifically the fragmented framework for landslide rehabilitation within forested areas and developed areas.

2.3 Exposure

Exposure refers to the “Situation of people, infrastructure, housing, production capacities and other tangible human assets located in hazard-prone areas.” Saint Lucia’s location within a high-risk zone characterised by tropical cyclone activity and a mid-ocean ridge with significant volcanic and seismic activity renders the island inherent exposed to an array of hazards. Its island characteristics also render the country susceptible to the impacts of coastal hazards and climate change. Its small geographical area often results in island-wide impacts when hazards are realised. These underlying vulnerabilities, when coupled with development practices such as settlement patterns and infrastructure development, magnifies the country’s vulnerability to hazard impacts.

Characteristic of many SIDS, much of Saint Lucia’s activities are concentrated along its narrow coastal belt. Essential economic activities which include tourism, transportation infrastructure and other critical infrastructure such as schools and hospitals, lie within the island’s coastal areas. Similarly, most of the country’s population reside in coastal areas where there are limited opportunities for expansion except via hillside encroachment and development. Coastal areas are highly susceptible to a range of hazard impacts. Their lower lying topography is accompanied by an increased risk of flooding and its location results in heightened susceptibility to a vast number of climate-related hazards such as tropical cyclones, storm surges and climate change. Hazards affecting the coastal areas of Saint Lucia therefore disrupt not only lives and wellbeing but can also significantly compromise the country’s economy, slowing the trajectory to development. Commendably, Saint Lucia has developed a compilation of its critical infrastructure within its Critical Infrastructure and Key Resources Profile, however the plans for safeguarding these assets have not been presented.

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3. GOVERNANCE FRAMEWORK

3.1 International Framework

3.1.1 Sustainable Development Goals

The United Nations General Assembly adopted the 2030 Agenda for Sustainable Development which incorporates the seventeen (17) Sustainable Development Goals (SDGs) in 2015. The SDGs serve as a call to action for countries to implement to ensure peace and prosperity for all persons. The Agenda recognizes that poverty eradication must be accomplished through a holistic approach with considerations for health, education, environmental sustainability and climate change. Saint Lucia has committed to the sustainable development agenda. In 2017, the Government of Saint Lucia established its National Coordination Mechanism for the 2030 Agenda. The Mechanism constitutes a SDG Subcommittee of Ministers that provide policy-level guidance to the Sustainable Development Goals National Coordinating Committee which is tasked with implementation and monitoring of the Agenda. In 2020, the country produced its Medium Term Development Strategy (2020) which directly aligns to the Agenda producing linkages to the 17 SDGs across varying activities. Saint Lucia is also party to the Addis Ababa Action Agenda that provides a financing framework for implementing the 2030 Agenda for Sustainable Development.

Figure 4: The United Nations Sustainable Development Goals

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3.1.2 Sendai Framework for Disaster Risk Reduction

The Sendai Framework for Disaster Risk Reduction 2015–2030, was adopted at the Third United Nations World Conference on Disaster Risk Reduction, held in Japan in 2015. The Framework replaced the previous Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters, and provides countries with concrete actions to reduce disaster risk. It recognizes that the state has the primary role to reduce disaster risk but that responsibility must be shared with other stakeholders including local government, the private sector and communities. The Sendai Framework establishes four priority areas for action and seven targets (comprising 38 indicators) through which member countries can measure their progress. Like much of the global community, Saint Lucia has adopted the Sendai Framework. Saint Lucia’s main development instrument— the Medium Term Development Strategy (2020) aims to fulfil obligations under the Sendai Framework as it relates to coherence with the sustainable development agenda.

![Priority Areas for Action under the Sendai Framework for Disaster Risk Reduction](image)

![Seven Global Targets under the Sendai Framework for Disaster Risk Reduction](image)
3.1.3 Paris Agreement on Climate Change

In response to the growing global threat of climate change, the Conference of Parties (COP) 21 in 2015, produced the first legally binding agreement that brings all nations into a common cause to undertake ambitious activities to mitigate against and adapt to climate change. Recognizing the impacts anthropogenic activities have on climate change, the Agreement was established to limit global warming to well below 2 degrees Celsius (ideally to 1.5 degrees Celsius), compared to pre-industrial levels. This is imperative for SIDS where climate change impacts are significant. Under the Paris Agreement, countries undertake Nationally Determined Contributions (NDCs), in response to climate change. In January 2021, Saint Lucia submitted its Updated Nationally Determined Contribution to the United Nations Convention on Climate Change.

3.1.4 Small Island Developing States Accelerated Modalities of Action (SAMOA) Pathway

The SAMOA Pathway was instituted to promote sustainable development within these SIDS due to their unique challenges such as climate change. The framework establishes thematic areas to promote sustainable development within SIDS. These include: climate change, inequality, green and ocean based economy, sustainable energy, food security and waste management.

3.2 Regional Framework

3.2.1 Caribbean Disaster Emergency Management Agency Agreement

In 1991, Caribbean countries established the Caribbean Disaster Emergency Response Agency with responsibility for coordinating emergency response and relief efforts to Participating States. In 2009, the organisation underwent a change of name to become the Caribbean Disaster Emergency Management Agency (CDEMA) to acknowledge the comprehensive approach of the Agency as disaster management underwent a paradigm shift from response-centric to comprehensive. As a CDEMA Participating State, Saint Lucia has committed to comprehensive disaster management and adopted the Regional Comprehensive Disaster Management Strategy and Results Framework (2014-2024) in 2014, which is aligned to the Sendai Framework for Disaster Risk Reduction. CDEMA has also produced Contingency Plans which outline immediate and coordinated response mechanisms at the regional level, in response to hazard events affecting Participating States.

The Comprehensive Disaster Management Strategy and Programming Framework (2014-2024) aims to enable safe and resilient CDEMA Participating States through comprehensive disaster management and prescribes a Comprehensive Disaster Management blueprint that provides a conceptual framework to facilitate comprehensive disaster management implementation at the national level and achieve the future desired state for Participating states. The blueprint illustrates the standard for comprehensive disaster management implementation through the development of an effective enabling environment, governance structures, strengthened National Disaster Offices, capacities, frameworks, core functional areas and competencies.

3.2.2 Caribbean Resilience Framework

Members of the Caribbean Community (CARICOM) adopted the Caribbean Resilience Framework in 2018. Aligned to the CDEMA’s Comprehensive Disaster Management Strategy, the framework establishes five pillars of resilience that must be addressed to reduce vulnerability to hazard impacts:

I. Social Protection for the Marginal and Most Vulnerable
II. Enhancing Economic Opportunity
III. Safeguarding Infrastructure
IV. Environmental Protection
V. Operational Readiness and Recovery

3.2.3 Antigua and Barbuda Declaration on School Safety

In 2017, Saint Lucia became party to the Antigua and Barbuda Declaration on School Safety - the Caribbean Safe School Initiative (CSSI) which provides a framework to promote school safety in the member countries. The Declaration promotes activities to build resilience within the education sector, disaster risk reduction and resilience education and awareness building. The Declaration establishes key commits as follows:

- Engaging in the multi-stakeholder “Worldwide Initiative for Safe Schools (WISS)”, by supporting the implementation of the Comprehensive Safe School Framework and the Model Safe School
Programme in the Caribbean for public and private facilities at all levels;
• Building resilience in the education sector;
• Sourcing financial and other resources from the national, regional, and the international community, from public and private sectors, to aid in strengthening efforts in disaster risk reduction education sector;
• Coordinating with national and regional disaster management bodies to integrate the tenets of comprehensive disaster management into education policies and plans and to ensure alignment with existing national and regional disaster risk reduction and climate change resilience building strategies;
• Strengthening coordination and cooperation mechanisms among stakeholders at the community, national, regional and international levels;
• Fostering greater collaboration among the Ministries of Education in the Caribbean with relevant private sector entities, non-governmental organisations as well as other regional and international entities;
• Defining and implementing a framework to track and measure progress on the implementation of the actions identified in the Road Map on School Safety to be authorised by the Minister of Education68.

3.2.4 Agreement Establishing the Caribbean Public Health Agency

In 2011, Caribbean Community Member States (of which Saint Lucia belongs), signed the Inter-Governmental Agreement that established the Caribbean Public Health Agency (CARPHA). In so doing, member countries committed to the establishment of a regional, umbrella agency that inter alia, promotes and develops measures for the prevention of disease in the Caribbean and supports the Caribbean Community in preparing for and responding to public health emergencies. Under the agreement, Ministers of Health from all member countries that form the Council, commit to promoting policies and programmes to protect health and prevent disease, including the implementation of improved public health infrastructure.

3.3 National Framework

Research suggests that Saint Lucia’s policy environment creates the needed enabling environment for comprehensive disaster management. The following outlines the major national policy instruments, plans and strategies that contribute to the governance framework for disaster risk reduction and climate change adaptation in Saint Lucia.

3.3.1 Disaster Management Act, No. 30 of 2006

A major strength within the national governance framework for disaster risk management in Saint Lucia, is the enabling legislation that supports disaster risk management activities. Developed after the CDEMA’s Model Legislation, the Act establishes several key areas for effective comprehensive disaster management. The National Disaster Office, 69

3.2.5 Saint George's Declaration on Principles for Environmental Sustainability in the Eastern Caribbean

The Saint George’s Declaration of Principles for Environmental Sustainability is an environmental policy adopted by members of the Organisation of Eastern Caribbean States that provides a framework for environmental management in alignment with the sustainable development process. Revised throughout the years, the 2006 Declaration establishes four main goals for environmental policy against the backdrop of sustainable development and with linkages to disaster risk reduction. These goals are:

• Goal 1: Building the capacity of Member States and regional institutions to guide and support processes of sustainable development
• Goal 2: Incorporate the objectives, perspectives, resources and talents of all of society in environmental management
• Goal 3: Achieve the long-term protection and sustained productivity of the region’s natural resource base and ecosystem service it provides
• Goal 4: Ensure that natural resources contribute optimally and equitably to economic, social and cultural development69


69 Organisation of Eastern Caribbean States. 2006. St. George’s Declaration of Principles for Environmental Sustainability in the OECS.
i.e. National Emergency Management Organisation (NEMO) is established within the Act charged with the responsibility, via its Director, of producing and coordinating policies regarding disaster management in Saint Lucia. The Act also establishes measures for accountability, clearly articulating the responsibilities of the Director of NEMO, along with the establishment and responsibilities of the National Emergency Advisory Committee (NEMAC) – a cross-sectoral committee that oversees disaster management activities. The Act also establishes the need for a National Emergency and Disaster Response Plan that adopts a comprehensive approach to disaster management. Critical response elements such as Emergency Operations Centres, shelters, alerts and evacuation processes are also established within the legislative instrument. The Act advocates for continued collaboration between NEMO and the Physical Development and Planning Division, in support of disaster risk integration within the development agenda. While there is no explicit recognition of climate change within the Act, its integration is implicit within the wider context of managing hazard risk.

3.3.2 National Emergency Powers Act, No. 5 of 1995

Saint Lucia’s Emergency Powers Act, 1995 was established with the objective “To make provision for the welfare and the safety of the community in case of hurricane, earthquake, fire, flood or any other disaster.” The Act authorizes the Minister to make orders to secure the essentials of life to the community and for “the preservation of the health, welfare and safety of the public.” The Act establishes authority to the Minister under a State of Emergency as conferred by the Governor General, to requisition needed supplies and services and grant specific authorities to ensure the preservation of health and safety.

3.3.3 Medium Term Development Strategy, 2020-2023

The Medium Term Development Strategy (MTDS) is Saint Lucia’s roadmap to sustainable development. The MTDS is premised on the A.R.I.S.E. concept of growth that is Accelerated, Resilient, Inclusive, Sustainable and Equitably Shared. While all aspects within the concept contribute to the disaster risk agenda, Objective 2: resilience—speaks specifically to increasing the country’s economical and societal resilience to economic and naturally-induced disasters and exogenous shocks.

The MTDS is premised on seven development pillars that indirectly and directly constitute an indispensable part of the disaster risk framework. Chief of these is Government’s commitment to “Adaptation for environmental sustainability, climate change and disaster vulnerability.” Moreover, with “Disaster Risk Management, Resilience and Sustainable Development” as a cross-cutting theme, the MTDS establishes an integrated approach to climate change adaptation, disaster risk management and sustainable development.

Figure 7: Seven pillars on development within the Medium Term Development Strategy
The MTDS is pivotal in its determination of country priorities and resource investments, guiding the prioritization of funding under the Public Sector Investment Programme (PSIP). By establishing disaster risk management as a stated priority, the MTDS is an essential entry point for disaster risk reduction strategies and policies actualization. The Strategy presents a prime opportunity for the mainstreaming comprehensive disaster management as it provides the basis for planning and investment in development initiatives.

3.3.4 Disaster Management Policy Framework, 2009

Approved by Cabinet in 2009, the Disaster Management Policy Framework is the key national driver for disaster risk reduction in Saint Lucia. The Policy adopts a stated comprehensive approach and commendably aims to integrate disaster risk reduction into development planning, establishing a level of operational coherence. The Policy also advocates for multi-stakeholder involvement, outlining in detail the roles of private and non-government sectors within the comprehensive disaster management process. However, wider considerations of key sectors such as agriculture, tourism, health and education and their roles in the process, are unexplored. The Policy establishes a range of plans and strategies for delivering elements therein. As a critical risk factor for many countries, more so SIDS, climate change has the potential to substantially hinder development however, the Policy errs significantly by excluding the transcending impacts of climate change which also exacerbate disaster risk. Many of the activities outlined are in keeping with the Sendai Framework for Disaster Risk Reduction, despite the Policy’s earlier development.

3.3.5 National Adaptation Plan, 2018-2028 and Nationally Determined Contribution, 2021

Saint Lucia’s National Adaptation Plan prescribes a roadmap for adaptation measures across several sectors in support of strengthening the country’s capacity to prepare for, manage and recover from the impacts of climate change. It is worth noting that the entire process for climate change adaptation is led by the Sustainable Development and Environment Division within the Ministry of Education, Innovation, Gender Relations and Sustainable Development. This is paramount as it suggests the Government of Saint Lucia’s recognition of climate change as a hindrance to the sustainable development process. More specifically, a chief outcome within the National Adaptation Plan is the integration of climate change adaptation considerations into the national development agenda. The National Adaptation Plan establishes priorities across eight key sectors which are consistent with the priority sectors for climate change adaptation and sustainable development.

Figure 8: Priority Sectors for Adaptation Measures
Six (6) cross-sectoral priorities are established within the National Adaptation Plan which support both directly and indirectly, disaster risk reduction and sustainable development. These priorities are:

1. Improved national, legal and regulatory framework to facilitate climate change adaptation across sectors
2. Increased generation and use of climate information in national and sectoral decision-making
3. Increased capacities to design and implement climate change adaptation projects across sectors
4. Strengthened national capacities for integrating climate change 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

The priorities are supported by strategic actions to enable achievement of the desired outcome. The National Adaptation Plan’s strategic place within the Sustainable Development and Environment Division and holistic approach to sustainable development can lend itself to significant progress in the climate change and development agenda should activities be conducted to the magnitude at which prescribed within the Plan and the limits to adaptation be addressed.

The National Adaptation Plan is supplemented by a series of sector specific plans known as Sectoral Adaptation Strategies and Action Plans (SASAPs) which have been developed thus far for Agriculture, Fisheries, Water and Resilient Ecosystems. Plans for Infrastructure and Spatial Planning, Health, Education and Tourism are still to be developed. However, the existing SASAPs carry mitigation co-benefits that contribute to the efforts outlined within the Nationally Determined Contribution.

The Nationally Determined Contribution (2020) is symbolic of Saint Lucia’s commitment to climate change action. Directly aligning to the Paris Agreement and the Sustainable Development Agenda, the Nationally Determined Contribution (NDC) establishes an inclusive and comprehensive approach to mitigating climate change risk. Noteworthy is the NDC’s explicit recognition of vulnerable groups such as children and considerations of the gendered terrain of development and risk management. The NDC emphasizes the energy sector as the main contributor of greenhouse gasses, albeit, the country contribution is negligible (approximately 0.0015% of global emissions in 2016 at a per capita rate of 3.88 tCO2-eq)\(^7\). Notwithstanding this, it is well-recognised that the country, like other SIDS, is disproportionately vulnerable to the negative impacts of climate change. Within this context, the NDC establishes a target of 7% reduction in greenhouse gas emissions in the energy sector by 2030 (relative to 2010 levels). While there is no explicit linkage with disaster risk reduction, the NDC’s alignment with disaster risk reduction is inherent under adaptation strategies and their co-benefits.

3.3.6 Hazard Mitigation Policy, 2007

Perhaps, the Hazard Mitigation Policy constitutes one of the most significant policy instruments for disaster risk reduction in Saint Lucia, anchored in the concept sustainable development and demonstrates commitment to the wider development process. The Policy articulates a clear vision of a resilient nation with considerations for the varying nature of risk including the threat of climate change. The Policy acknowledges the intricate relationship between development and disaster risk reduction, promoting the integration of hazard risk management into the development planning process. Several articles within the Policy align with regional and global best practices for disaster risk reduction. These include but are not limited to: establishment of a national hazard risk data repository, and all of society approach, and sectoral mainstreaming. The Policy is pivotal in its strategic alignment of sustainable development, climate change and disaster risk reduction. While the international policy instruments for these processes are not explicitly outlined, the activities within the Policy demonstrate alignment. This is illustrated by one of the key activities of the Government of Saint Lucia within the Policy which seeks to “Integrate climate and other natural hazard considerations in the physical planning process.” The Hazard Mitigation Policy also realises elements of the National Environmental Policy, contributing toward policy-level coherence within the national framework for disaster risk reduction.

3.3.7 National Emergency Management Plan, 2014

The National Emergency Management Plan (NEMP) comprises a suite of plans and guidelines that establish a framework for coordinating the operations of stakeholders involved in emergency management. The NEMP is multi-hazard in approach and can be applied to anthropogenic or naturally-induced disasters. The following documents form the NEMP 71:

- 9 Policy Documents
- 7 Guideline Documents
- 4 Standard Operations Procedures
- 26 Hazard-Specific Plans
- 7 Sector Response Plans
- General guidelines and Agreements

3.3.8 National Environmental Policy and National Environmental Management Strategy, 2004

The National Environmental Policy and its accompanying Strategy constitutes a critical component of Saint Lucia’s disaster risk framework in the context of environmental management. Clearly articulating the country’s vulnerability to disasters, including climate change impacts, the Policy and Strategy establishes a framework for sustainable development, with adequate considerations for the environment and human development. The underlying factors that contribute to vulnerability such as poverty and unsustainable land-use practices are highlighted as part of the sustainable development process. The Policy has a stated objective to mitigate against undesirable environmental change and natural disasters (sic), aligning directly with the disaster risk reduction agenda. The Policy establishes key instruments in achieving this objective which include the National Hazard Mitigation Plan and the National Climate Change Policy and Adaptation Plan. The Strategy also aims to provide a framework for integrated development planning, that will also aid in reducing disaster risk. Several other activities within the Policy and Strategy lend to the comprehensive disaster management agenda. These include the establishment of an integrated Geographic Information System (GIS) for data management, capacity building within the Sustainable Development Unit and stakeholder engagement platforms.

3.3.9 National Land Policy, 2007

Saint Lucia’s National Land Policy is pivotal in its direct guiding oversight of physical development processes and activities. The Policy explicitly and implicitly promotes sustainable development. The linkage with disaster risk reduction is also clearly articulated as priority area with actions such as: minimizing and mitigating the impacts of development on resources; promoting sustainable and integrated management of the coastal zone; and minimizing coastal and marine pollution. The Policy therefore provides valuable opportunities for hazard mitigation and prevention activities through strategic, safe and sustainable development of the land resource. Where the Policy errs is in effectively establishing the linkage with climate change. Climate change has the potential to threaten the land resource. Sea level rise can reduce available land space which climatological changes can alter the landscape. However, the Policy only briefly mentions climate change in the context of policy integration and implementation. Despite this, acknowledging that sustainable land management requires coherence across varying areas and policies signifies that there is an implicit recognition of the threat of climate change. The Policy therefore serves as a significant contributing instrument in support of the sustainable development, disaster risk reduction and climate change agenda.

3.3.10 Coastal Zone Management in Saint Lucia: Policy, Guidelines and Selected Projects, 2004

Saint Lucia’s Coastal Zone Policy advocates for sustainable development through sustainable use of the coastal resource. This is especially critical for Saint Lucia as many of activities are dependent on coastal resources. These include tourism, fishing, communications and settlement. The Policy acknowledges that the coastal zone is susceptible to hazards, however the nature of these hazards, including climate change, is not explored. The Policy advocates for policy and/or legislation to treat with disasters in the coastal region, specifically with the mass movement of people. While the direct link with climate change and the coastal zone is not well established, the Policy aims to reaffirm the directives within the country’s previous Climate Change Policy and Strategy. While the interplay between disaster risk, climate change and sustainable development of the coastal zone requires strengthening within the instrument, several opportunities for alignment and integration are provided via capacity building, public awareness initiatives and stakeholder involvement.

3.3.11 Physical Development and Planning Act No. 29 of 2001

The Physical Development and Planning Act is the legislative instrument that governs land-use and development planning, housing planning and policy and environmental development via the environmental impact assessment process. The Act is crucial in its contribution to the hazard prevention and mitigation process within the development agenda. The Environmental Impact Assessment (EIA) process as outlined within the Act allows for "The determination of potential impacts, and the degree of such impacts, of a proposed undertaking on the environment; or identification of measures to be established to mitigate against any potential adverse impacts that might occur as a result of the proposed undertaking." In so doing, development activities are assessed to minimise unwanted impacts and where inevitable, mitigate against them.

3.3.12 Social Protection Policy, 2015

Successfully establishing the linkage between disaster risk and climate change with social vulnerability, the Social Protection Policy presents a multi-dimensional approach with considerations for education, health, housing, legal aid, and social security in support of poverty alleviation and protecting vulnerable populations towards the sustainable development agenda. Two aims articulated within the policy contribute to the disaster risk landscape:

- Alleviating economic, social and environmental deprivation, including relief of chronic and extreme poverty
- Reducing the consequences and impact of shocks before they occur (preventive)

Priority area 2 of the Policy aims to rationalize, reform and strengthen protective interventions and strategies. Within this area, the Government of Saint Lucia seeks to develop, reform and strengthen the emergency and housing interventions for the poor and vulnerable through Disaster Assistance Programmes (Housing Assistance, Water and Sanitation, Burial Assistance). The Policy therefore forms a critical instrument in the overall comprehensive disaster risk environment, tackling underlying development issues that create vulnerabilities within the country.

3.3.13 National Housing Policy

The National Housing Policy seeks to address key aspects of physical vulnerability within Saint Lucia as they relate to housing and settlements. While not explicitly recognising the disaster risk management planning environment, the Policy establishes challenges with urbanization and housing quality that directly interplay with disaster risk. Additionally, the policy goal of “Establishing a housing delivery system that maintains balance in the economic development and environmental sustainability of communities" and the objective of “Adequate and affordable housing" contribute to the sustainable development agenda by reducing the occurrence of unsustainable development practices that exacerbate disaster risk, while also endorsing the provision of shelter to meet the varying circumstances of the population, thereby reducing vulnerability. The Policy also produces direct linkages to the disaster risk framework, by advocating for “disaster resistant" housing for vulnerable groups and resettlement of persons displaced by disasters.

3.3.14 Forest Policy, 2008

Recognising the role of forest resources within the overall comprehensive disaster management framework, the Forest Policy itemizes environmental and natural resource management, hazard mitigation and disaster management as one of its strategic directions. The Policy establishes Government's commitment to conserve natural ecosystems while preventing, minimizing and mitigating the impacts of invasive species and climate change on the natural resources. Directly aligning to the climate change agenda, these activities also contribute to the disaster risk framework, directly mitigating against select biological hazards, while ecosystem preservation also aid in reducing vulnerability. The Policy also advocates for community-based watershed management in support of improved drainage to minimize flood risk and reduced coastal pollution.

3.3.15 National Tourism Policy (2003, Revised 2006)

The National Tourism Policy establishes a linkage between the tourism industry and sustainable development, with a guiding principle of sustainability and conservation of natural resources. This linkage however requires strengthening to expand beyond sustainability in the context of
conservation, industry sustainability and economic development, to the wider development context. While the Policy articulates threats and challenges facing the tourism industry, the nature of these threats, in particular, climate change is not acknowledged. Climate change is expected to significantly impact many SIDS whose economies are dependent on the tourism industry. In 2015, tourism accounted for 60% of Saint Lucia's GDP. Collapse of the tourism industry will therefore substantially impact the country as a whole, and hinder the path to development. Disaster management within the Policy is covered within the context of protecting visitor health. The wider interplay of disaster risk with the industry is unexplored within the Policy. It is crucial that disaster risk reduction and climate change are addressed within the context of sustainable development within the tourism industry due to the industry's vulnerability which result in economic and social impacts, disrupting the path to growth. Notwithstanding, the Policy creates several opportunities for stakeholder involvement that can be explored to expand activities for disaster risk reduction and climate change.

Other national policies, plans and instruments contribute to the wider disaster risk policy environment. Many of the national plans support specific elements within the disaster management cycle, for example, the Damage and Needs Analysis Policy (2005) supports post-impact coordination. The wider policy context for disaster risk management also includes the following:

- Damage Assessment and Needs Analysis Policy, 2005
- Mass Fatalities Policy
- Guidelines for Debris Management in a Disaster, 2006
- Donations and Importation of Relief Supplies Policies and Guidelines in Saint Lucia after Disasters, 2005
- Emergency Shelter Policy, 2001
- Emergency Housing Management Policies and Guidelines, 2006
- Information Management in Emergencies and Disasters, 2009
- Contingency Plan for Civil Unrest, 2010

3.4 Institutional Framework

3.4.1 National Context

Saint Lucia’s Disaster Management Act No. 30 of 2006, establishes the institutional framework for disaster risk management in the country. There is a three-tiered approach to disaster management in Saint Lucia, at the national, committee and coordinating unit levels. At the national level, the National Emergency Advisory Council (NEMAC) which comprises high level representatives from varying state entities, that oversees disaster management activities within the country (Appendix III). The Disaster Management Act also makes provisions for the establishment committees and subcommittees to undertake disaster management activities. Under this provision, the Government of Saint Lucia established a range of committees. Saint Lucia’s institutional framework comprises eighteen (18) District Disaster Committees, thirteen (13) national disaster committees and five (5) sector committees, all forming the overall institutional mechanism for disaster risk management.

The third tier of the national framework, involves the coordinating unit which is the National Emergency Management Office. Prior to the establishment of the Act, disaster management responsibilities were managed by the Office of Disaster Preparedness. The date of establishment of the Office is uncertain, however there is evidence to support its functionality since 1990, at the time led by a National Disaster Coordinator. By 1995, the Office had a staff of three persons and in 2000, the Office became the National Emergency Management Office (NEMO) which currently oversees disaster management activities in the country. NEMO was established as a department within the Office of the Prime Minister. NEMO is led by a Director whose responsibilities are established within the Act. NEMO is an amalgamation of key disaster risk management stakeholders (including government agencies, non-governmental organisations and civil society) charged with the responsibility of maintaining a state of preparedness (Appendix IV).

The NEMO Secretariat is responsible for the overall administrative and operational management of disaster management activities and is responsible for ensuring the varying levels involved in the disaster management framework are involved in the disaster risk planning process. In 2012, the Secretariat comprised seven (7) full time staff members, three (3) of which are technical positions, and four (4) of which are administrative. The Prime Minister functions as chairperson of the overall National Disaster Management Organisation with responsibilities for activation of the National Emergency Plan; declaration of an emergency and issuance of mandatory evacuation orders. The relationship among these many players in the institutional environment for disaster risk management in Saint Lucia is illustrated in Figure 9. The expansive nature of stakeholder involvement suggests an inclusive disaster risk management framework and shared ownership, in keeping with the “all of society” aspect of the comprehensive disaster management process.

A key element within the institutional framework for disaster risk reduction, the Hazard Mitigation Policy establishes the National Hazard Mitigation Council which guides technical decision-making in support of hazard mitigation for vulnerability assessment and risk reduction. The Hazard Mitigation Council comprises a wide range of government institutions including NEMO and is led by the Ministry of Works. The challenge however, is that the Council is still to be made fully operational.

There are five sector committees as follows:

1. Tourism: Hospitality Crisis Management Unit
2. Health: Disaster Risk Management Committee
3. Agriculture Disaster Risk Management Committee
4. Education Disaster Risk Management Committee
5. Finance Disaster Risk Management Committee

3.4.2 Local Level

District Committees are categorised by geographical location and oversee community mobilisation in support of the national disaster management effort. These 18 districts committees are outlined within Appendix V.

3.4.3 Community Level

Disaster risk reduction demands an all of society approach. With effects usually felt at the individual and community level, localities must be involved in disaster risk reduction planning. District Committees are directly linked to communities within which they cover with members being volunteers from the community. It is important to note however, that many District Committees have been inactive.

The National Disaster Committees, are chaired by representatives of state entities. The following are the 13 National Disaster Committees:

1. Transportation Disaster Committee
2. Telecommunications Disaster Committee
3. Damage Assessment And Needs Analysis Disaster Committee
4. Information and Education Committee
5. Emergency Works Committee
6. Shelter Management Disaster Committee
7. Oil Spill Committee
8. Hazmat Committee
9. Hospitality Crisis Management Unit
10. Hazard Mitigation Council
11. Supplies Management Committee
12. Stress Management Committee
13. Well-being Committee

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Figure 9: Institutional Framework for disaster risk management in Saint Lucia
4. POLICY COHERENCE

Saint Lucia’s key policies in support of disaster risk reduction are discussed at length in Section 3.3. This section summarises the coherence of the three main policy instruments for development, climate change adaptation and disaster risk reduction, with the three governing international frameworks in these areas i.e.: the Sustainable Development Goals (SDGs), the Paris Agreement and the Sendai Framework for Disaster Risk Reduction.

4.1 Strategic Coherence

Strategic coherence assesses whether the SDGs, climate change adaptation and disaster risk reduction are explicitly addressed jointly or if there is an aim to strengthen the relationship and linkages between the areas. Perhaps Saint Lucia’s most crucial policy instrument is its Medium Term Development Strategy (2020) that lays out the path to sustainable development. Aligned directly to the 2030 Agenda for Sustainable Development, the Medium Term Development Strategy (MTDS) also presents linkages with the Paris Agreement and the Sendai Framework for Disaster Risk Reduction. There is also a high level of strategic coherence within the NAP (2018) and the NDC (2021), presenting direct strategic linkages to the SDGs and the Paris Agreement. The National Adaptation Plan (2018) explicitly recognises Government’s commitment under the Paris Agreement. Similarly, the National Adaptation Plan (NAP) produces strategic coherence with the Sustainable Development Agenda, aligning with Sustainable Development Goal (SDG) 13: Climate Action, and other SDGs. The National Adaptation Plan forms a significant piece in the country’s artillery to combat disaster risk and climate change, in support of the sustainable development agenda. Notwithstanding, the national climate change instruments err in establishing the relationship with the Sendai Framework for Disaster Risk Reduction. The Disaster Management Policy Framework (DMPF) does not establish a concrete strategic link between climate change adaptation, disaster risk reduction and the SDGs. Disaster risk reduction is a core component of comprehensive disaster management and as such, it must occur in the context of climate change adaptation and sustainable development. While the Policy Framework acknowledges some regional mechanisms, there is need to establish the policy context and goals within the wider regional and international mechanisms for sustainable development. The Policy Framework also errs in explicitly outlining the linkage between climate change adaptation and disaster risk reduction. It is noteworthy to mention that some key regional and international instruments may be absent from the Policy Framework due to its time of development (2009) prior to the finalization of these key development mechanisms.

4.2 Conceptual Coherence

Conceptual coherence examines how national policy instruments link the SDGs, climate change adaptation and disaster risk reduction conceptually through the concept of risk. While the conceptual linkage is evident within the MTDS through the concept of building resilience, there is a need to strengthen and build upon the relationship between disaster risk reduction, climate change adaptation and sustainable development. Disasters are predominantly discussed in the recovery aspect and impacts to the economy, with little emphasis on how development processes interplay with disaster risk and the mitigation process. Conceptual coherence is much more evident within the national climate change instruments i.e. the NAP and NDC. Based on the concept of resilience-building, the NAP successfully establishes the relationship between development processes and risk. Both the NAP and the NDC explore climate change risk beyond hydrometeorological extremes, articulating the transcending socioeconomic impacts of climate change. The national tools also lend due considerations for the social landscape of risk, with considerations for gender perspectives and the NAP presents a clearly outlined need for poverty assessments within the climate change planning landscape. Conceptual coherence is low within the DMPF. Emphasis is placed on disaster risk reduction with some linkages to sustainable development and development processes while climate change adaptation is essentially excluded. Additionally, there are limited considerations for vulnerable groups within the disaster risk planning landscape. While mention is made of the poor, other social considerations are excluded from the discussion on vulnerability within the DMPF. The varying social terrain of vulnerability is not explored within the DMPF which and should advocate for these especially vulnerable groups and the need to address the underlying social driver of disaster risk.
4.3 Institutional Coherence

Institutional coherence explores whether coordination between the sustainable development agenda, climate change adaptation, and disaster risk reduction is envisioned, and if/how institutional arrangements support coherence. A major drawback to harmonization of disaster risk reduction, climate change adaptation and sustainable development in Saint Lucia, is their segregated ownership under different state entities. To illustrate, the MTDS is led by Department of Economic Development, Transport and Aviation; the DMPF is owned by the NEMO, under the Office of the Prime Minister, while the NAP is championed by the Department of Sustainable Development. The national policy instruments also fall short in identifying the mechanisms for coordination at the subnational levels. While the NAP establishes roles and responsibilities of stakeholders, the MTDS and the DMPF fail to do so. There is little evidence outlined within the DMPF that demonstrates institutional coherence. Varying stakeholders and corresponding responsibilities are not well-explored, especially at the subnational level to support institutional coherence. Despite some evidence of institutional coherence in the NAP, this can be strengthened by the establishment of joint mechanisms for SDGs, disaster risk reduction and climate change adaptation, such as joint committees or consolidating ownership under one department such as the Department of Sustainable Development that currently oversees sustainable development and climate change activities. The Department of Sustainable Development provides a unique opportunity to create a platform for joint policy and ownership of the climate change adaptation, disaster risk reduction and sustainable development agendas.

4.4 Operational Coherence

Operational coherence considers the measures, actions and activities that bring together the SDGs, climate change adaptation and disaster risk reduction, and the extent to which planning transcends across sectors. Operational coherence is evident within the policy instruments via multi-stakeholder platforms that underpin the instruments and public awareness initiatives. There is significant evidence of operational coherence within the NAP and the NDC that acknowledge the role of key sectors in climate change adaptation and consequently sustainable development. The NAP is supported by SASAPs that govern adaptation within priority sectors, where eight (8) priority sectors are identified: tourism, water, agriculture, health, infrastructure and spatial planning, fisheries and natural resource management, education. However, while both instruments indicate substantial stakeholder involvement, the detailed responsibilities of the varying nature of stakeholders are not presented. The MTDS and the DMPF require strengthening in the sectoral mainstreaming environment, where crucial sectors including water, housing and land-use planning are excluded from the targeted sectors environment.

4.5 Financial Coherence

Financial coherence explores whether and how funding strategies and investments bring together the sustainable development agenda, climate change adaptation and disaster risk reduction, allowing for the mobilization and reassignment of funding across the areas and more importantly, the maximization of limited resources (finances) which is especially crucial in the context of SIDS and their limited financial capacities. The MTDS demonstrates a major step toward financial coherence, though this must be built upon. The NAP is supported by a Climate Financing Strategy (2020) that identifies means to access finance and seeks to ensure that the resources available to Saint Lucia for the achievement of its NAP objectives are appropriate and commensurate to its needs. The Strategy outlines international public funds (multilateral climate financing, Green Climate Fund, Adaptation Fund, World Bank, Global Environment Facility Special Climate Change Fund, Adaptation for Smallholder Agriculture Programme, Caribbean Development Bank, etc.), bilateral public finance, public national funds and private finance. The Climate Financing Strategy demonstrates a further move towards coherence through its recognition of the World Bank’s Global Facility for Disaster Risk Reduction, which while targeting disaster risk reduction, also includes adaptation initiatives.

The NDC provides an indication of financial coherence through its advocacy for risk transfer mechanisms. The NDC is supported by a comprehensive financing strategy, published in 2021, which outlines funding sources similar to those within the Climate Finance Strategy (2020). The NDC Financing Strategy (2021) estimates the cost of mitigation activities to amount to USD 368 million, and while the cross-mobilisation of funding is not explicitly addressed, it is suggested through the application of international public finance that target the joint agendas.
The DMPF has limited considerations for financial aspects of activities outlined for the achievement of goals. With the exception of the Emergency Disaster Fund, other sources of funding, such as those for risk reduction and climate change adaptation activities are not well articulated in the Policy. As such, there are no opportunities for the reallocation of funding from one area to another.

4.6 Monitoring, Evaluation and Reporting Coherence

Monitoring, evaluation and reporting considers whether coordination and synergies for the SDGs climate change adaptation and disaster risk reduction monitoring, evaluation and reporting is present. Monitoring, evaluation and reporting enables accountability at the national level and in support of regional and international commitments. There is an urgent need for attention to monitoring, evaluation and reporting mechanisms across the wider policy instruments. The MTDS refers to official global reporting mechanisms such as those under the UNFCCC that provides a vital opportunity for monitoring, evaluation and reporting but coherence is limited to this aspect only. There is therefore a need to strengthen the monitoring and evaluation elements of the MTDS to support enhanced coherence for maximization of resources, especially in the context of limited capacity. As the country’s development roadmap, the MTDS is well poised to steer the country towards the path of sustainable development with adequate considerations for the intricate nature of vulnerability and risk. It provides the synergistic platform for policy coherence for disaster risk reduction, recognising disaster risk resilience as a cross-cutting theme. While there is evidence of a monitoring, evaluation and reporting framework for the NAP and the NDC, there is no evidence of a joint mechanism or plans thereof. Action plans and outputs are presented as part of the overall NAP for priority areas. The DMPF does not propose a monitoring and evaluation framework to allow for accountability and performance measurement and as such there are no opportunities for integration in this capacity.

The range of contributing sectoral policies to the disaster risk reduction environment in Saint Lucia are covered in Sections 3.3 and 6.2. While many of these policies do not explicitly refer to the Sendai Framework for Disaster Risk Reduction, the Paris Agreement or the SDGs, their contributions to the development agenda and disaster risk reduction are implicit by the activities undertaken. What is now required, is the harmonisation among these policies so that disaster risk reduction activities are integrated throughout the range of sectors. This harmonisation is necessary to provide a structured approach to responsibilities to enable accountability. Additionally, in the context of limited resources, policy coherence can aid in maximising resource allocations for joint efforts and preventing the duplication of efforts.
5. DISASTER RISK REDUCTION INTERVENTIONS AND CAPACITIES

Saint Lucia’s capacities and additional challenges within the disaster risk environment are discussed under the priority areas of the Sendai Framework for Disaster Risk Reduction in the subsequent sections.

Priority 1: Understanding Disaster Risk

Understanding disaster risk involves a suite of activities to promote risk-informed actions and decision making through data collection and dissemination, knowledge management (including local knowledge) and education, training and awareness building. These activities must be conducted at all levels of society in support of the concept of shared ownership.

A critical strength in Saint Lucia’s disaster risk management framework is the presence of a National Risk Register, which is mandated by the Disaster Management Act No. 30 of 2006, Part II-5. (3) (c) under the functions of the Director of NEMO to “Gather timely and authoritative information concerning the conditions and trends in the quality of the environment, both current and prospective, as these relate to the likelihood of disasters in Saint Lucia.” The National Risk Register provides useful information on the country’s hazard and control measures, however the register errs in providing risk information within the context of vulnerability and exposure. Additionally, while the Register considers a wide range of hazards, this study revealed that some hazards considered in other national instruments, have been excluded. Examples include financial shock, deforestation and biodiversity loss. The Disaster Risk Reduction Country Profile prepared by the United Nations International Strategy for Disaster Reduction in 2014 also provides useful insight into disaster risk in the country. However, there is need for an updated database of risk information. This must be coupled with disaggregated vulnerability data collection that allows for understanding the intricate aspects of vulnerability for risk-informed planning. The 2014 Country Document for Disaster Risk Reduction also emphasises this need, advocating for improved institutional and community capacities including strengthening the knowledge management platform, incorporating scientific information and inclusion of local knowledge.

Data collection, analysis and dissemination is supported by the Central Statistical Office, that has a statutory mandate to produce and provide statistical information for evidence-based decision-making and policy. Within this framework, data from key ministries and divisions across sectors, contribute to the National Statistical System. Data is collected from the Ministries of Agriculture, Education, and Commerce, and Departments including Customs and Excise, Inland Revenue and National Insurance Corporation. The Water Resource Management Agency within the Ministry of Agriculture, supports with the collection and analysis of water and water-related data. Similarly, the Ministry’s Division of Forest and Lands Resources, through the Forest Management Information Systems Unit serves as a repository for related data including wildlife data, wildfire data, forest reserve data, data regarding the removal and transportation of local timber, and maps generated within the Division.

Notwithstanding existing capacities, there are pausities in the data environment for Saint Lucia. Through a partnership with the United Nations, Saint Lucia commissioned a baseline study that reviewed and assessed data and statistics in 2015 which categorised the country as “data poor.” The study found that this was largely as a result of capacity limitations and the need for institutional strengthening. The review found that the National Statistical System was uncoordinated, characterised by untimely and non-user-friendly data and government agencies lacked the needed statistical and information technology capability to strengthen data collection, analysis and dissemination efforts. The assessment further revealed challenges with under-financing of the National Statistical System and a fragmented institutional framework of the satellite units that collect data assigned to Ministries.

The 2019 Voluntary national Review of the 2030 Agenda for Sustainable Development highlighted

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81 https://www.stats.gov.lc/about-us/
82 https://www.stats.gov.lc/data-producers/
83 https://mosulu.govt.lc/fmis/
that data availability continues to impede monitoring and reporting on the Agenda. Monitoring of progress made towards the targets of the Sendai Framework is facilitated through the Sendai Framework Monitor (SFM) which consolidates national and global data under each of the targets. The challenge however, is that Saint Lucia’s data limitations hinder monitoring. Saint Lucia’s reports for 2018 and 2019 under the SFM are currently in progress. As such, there is no validated data to determine the extent of the country’s progress towards the targets of the Sendai Framework. These findings further create the case for strengthening data collection, analysis and dissemination for evidence-based policies and actions.

There is limited evidence to support the use of GIS and ICT within the wider risk management landscape but a significant step in this direction is the establishment of the National Environmental Information System (NEIS) that leverages ICT to consolidate information as it relates to the state of the environment. The NEIS provides information on global environmental indicators of environmental health and quality, many of which interrelate with the disaster risk environment. Research also revealed limited availability of updated hazard risk maps and models to promote risk informed planning. However, a small but progressive step at the local government level via Castries East District Disaster Committee is the development of a database of vulnerable persons within the community and the use of GIS to produce maps to highlight vulnerable areas within the district86. There is need for this application of GIS and database development to occur at the national level and throughout all districts.

There are critical strides towards promoting awareness building and education for disaster risk reduction. The 2019 Annual Report by the NEMO revealed a range of activities geared towards awareness building and education such as the “Understanding Disaster Risk Management” workshop that targeted the media. However, as itemised within the report, there is need to place greater emphasis on public education and awareness with a focus on disaster risk reduction. The 2018 Audit further revealed the need to the integrate disaster risk reduction into the curricula at all levels of education⁸⁷. Moreover, awareness-building activities appear fragmented and ad hoc and there is a need for a comprehensive and logistic public sensitization strategy to disaster risk reduction⁸⁷.

Priority 2: Strengthening Disaster Risk Governance to Manage Disaster Risk

Disaster risk governance involves mainstreaming disaster risk reduction within and across all sectors; implementing disaster risk reduction strategies; providing incentives for disaster risk reduction activities (such as compliance with building codes); establishing and strengthening coordination mechanisms; and instituting legislation and policies in support of disaster risk management.

One of the greatest assets in the national framework for disaster risk management is the presence of a Disaster Management Act that mandates select activities by law. These include the roles of specific institutions such the NEMAC and the Director-NEMO, and the inclusion of varying sectors within NEMAC, which also forms the coordination body upon activation of the Emergency Operations Centre. This enabling environment for disaster risk management will be further improved by the passing and ascension of the Comprehensive Disaster Management (Amendment) Bill which will address deficiencies within the Disaster Management Act. As at 2020, the Bill was under review. However, when finalised, this is expected to strengthen the national governance framework for disaster risk management. The national disaster risk reduction framework is further supported by Saint Lucia’s CWP. After covering a period of five (5) years, Saint Lucia’s CWP expired in 2016. However, a new CWP was prepared and completed in 2020, scheduled to be implemented over a four year period. The current status of its implementation is uncertain, but if operationalised, can further strengthen the country’s governance framework for disaster risk reduction.

There is little evidence to support the provision of incentives for disaster risk reduction activities. This is especially evident by the widespread non-compliance of safe building standards in support of safe housing⁸⁸. Despite this, there is ample evidence that indicate disaster risk mainstreaming across and within sectors. The NEMAC with representation from several sectors coupled with the number of sector and district level disaster committees, are indicative of vertical and horizontal disaster risk integration. Also noteworthy, is the presence of a Department of Sustainable Development within the Sustainable Development and Environment Division

that spearheads the National Adaptation Plan and implementation process. This Department and the wider Division presents a key entry point for policy coherence and integration of disaster risk reduction and climate change adaptation within the sustainable development process. Likewise, the Sustainable Development Goals National Coordinating Committee and the SDG Ministerial Subcommittee is a testimony to the country’s commitment to the 2030 Agenda for Sustainable Development.

The country’s Medium Term Development Strategy (2020) is a significant instrument within the governance framework. Treating disaster risk resilience as a cross-cutting theme and bringing together underlying development challenges, the Strategy is the country’s medium-term path to sustainable development and provides the basis for funding under the Public Sector Investment Programme. The Government of Saint Lucia is currently in the process of developing its National School Safety Policy that will provide the enabling governance arrangements for the implementation of the Caribbean Safe Schools Initiative. The National School Safety Policy is being led by a multi-stakeholder Committee, led by the NEMO and the Ministry of Education. This Policy is essential for the mainstreaming for disaster risk reduction into the curriculum, but also as these schools often serve as emergency shelters during emergencies and disasters. It should be noted however, that there is a need for a transition away from relying on schools as emergency shelters, due to the development drawbacks to education associated with these types of displacement and response interventions. Several other national and sectoral policies, strategies and plans contribute largely to the disaster risk governance framework. Many of these are discussed in detail in Section 3.3. Table 1 provides the summary of these instruments.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Instrument / Activity</th>
<th>Description</th>
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<tbody>
<tr>
<td>Planning and Infrastructure</td>
<td>Physical Development and Planning Act No. 29 of 2001 National Land Policy, 2007</td>
<td>In alignment with mitigation measures such as “disaster-resistant” building and advocacy for building codes.</td>
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<tr>
<td></td>
<td></td>
<td>Provides a mechanism for land development, consistent mitigation practices.</td>
</tr>
<tr>
<td>Housing</td>
<td>National Housing Policy, 2008</td>
<td>Addresses vulnerability of housing and settlement patterns.</td>
</tr>
<tr>
<td>Tourism</td>
<td>National Tourism Policy, 2006 Hospitality Industry Crisis Management Plan</td>
<td>Speaks to protecting visitor health from biological hazards.</td>
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<td></td>
<td></td>
<td>Establishes the institutional framework for the effective management of disasters/crises within the hospitality industry due to the uniqueness of the sector.</td>
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<thead>
<tr>
<th>Sector</th>
<th>Instrument / Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>Caribbean Safe Schools Initiative and upcoming National School Safety Policy Education Act No. 41, 1999</td>
<td>Provides a framework for school protection and safety. Establishes the need for protecting the health and safety of students and employees. The Act also identified as a duty of teachers to “Perform assigned duties as outlined in the school emergency plan developed by the school administration and the teachers to protect the health and safety of students”.</td>
</tr>
<tr>
<td>Health</td>
<td>National Communicable Disease Surveillance Manual, 2006 National Influenza Plan, 2009</td>
<td>Provides a system for effective disease surveillance to minimise disease outbreaks Provides a mechanism for managing influenza outbreaks from preparing to responding</td>
</tr>
<tr>
<td>Environment</td>
<td>Forest Policy, 2008 Coastal Zone Management in Saint Lucia: Policy, Guidelines and Selected Projects, 2004 National Environmental Policy and National Environmental Management Strategy, 2004 Draft Climate Change Bill</td>
<td>Advocates for hazard mitigation through the protection of natural forest ecosystems. In alignment with mitigation practices in protecting coastal resources. Provides a framework for sustainable environmental management. Presents comprehensive approach to climate change through mitigation and adaptation and supports the integration of climate change considerations into existing and new policies, strategies and legislations.</td>
</tr>
</tbody>
</table>
Saint Lucia’s commitment to a range of regional and international frameworks in support of climate change adaptation, disaster risk reduction and sustainable development is a strong indication of the Government’s recognition of the importance of a coherent and comprehensive approach to disaster risk reduction and sustainable development. This, coupled with the country’s progress towards disaster risk reduction mainstreaming, symbolises strengthening within the governance framework. Notwithstanding, there are some immediate areas for strengthening such capacity building within NEMO90. Further investment in human resources within the NEMO is required if the organisation is to fulfil its mandate and address deficiencies within the existing framework. Apart from capacity building within the NEMO, there are additional gaps within the institutional framework for disaster risk reduction that must be addressed. There are still some sectors to actively contribute to the disaster risk reduction environment. Additionally, the numerous “grey areas” concerning responsibilities across institutions and limited collaboration among state entities lends themselves to a fragmented framework for disaster risk reduction91. Unclear responsibilities lead to challenges with accountability. Insufficient collaboration with entities operating at times within vacuums can result in duplicated activities and resource wastage.

As highlighted within the 2014 Country Document for Disaster Risk Reduction, the overall governance framework for disaster risk reduction requires strengthening to facilitate greater vertical integration at the national and local level and improved coordination among partners93.

Priority 3: Investing in Disaster Risk Reduction for Resilience

Investing in disaster risk reduction involves the assignment of resources (financial, logistical, human resources) by both public and private entities in support of the disaster risk reduction agenda. Investing in disaster risk includes risk transfer mechanisms, critical infrastructure risk prevention and reduction; land-use mainstreaming; strengthening building codes; health systems resilience; social protection mechanisms for vulnerable groups; integrating disaster risk reduction into environmental management practices and strengthening tourism sector resilience.

Funding for the NEMO is allocated under the nationally approved budget annually. However, these annual allocations are predominantly for the coverage of operational expenses with little or sometimes no room for major disaster risk reduction activities. This is well illustrated by the 2012–2013 allocation for the NEMO, where 99% of its budget pertained to operational expenses such as wages, utilities, and maintenance92.

Table 1: Summary of policies and plans within the national framework for disaster management

<table>
<thead>
<tr>
<th>Sector</th>
<th>Instrument / Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>Sectoral Adaptation Strategy and Action Plan for the Agriculture Sector, 2018</td>
<td>Provides a framework for climate change adaptation and risk reduction in the agriculture sector.</td>
</tr>
<tr>
<td>Social Development</td>
<td>Social Protection Policy, 2015</td>
<td>Provides a mechanism for protecting vulnerable groups such as the economically disadvantaged.</td>
</tr>
<tr>
<td>Security</td>
<td>Fire Services Act, 1976</td>
<td>Aims to preserve life and property from fire-related hazards and promotes mitigation through the regulation of slash and burn practices.</td>
</tr>
<tr>
<td>Energy / Industry</td>
<td>Oil Spill Contingency Plan, 2007</td>
<td>Provides a framework for response to oil spills in support of impact minimization.</td>
</tr>
</tbody>
</table>


critical sectoral state agencies receive their annual budget allocations under the national budget that will entail some activities related to disaster risk reduction. There is however, some evidence in support of prioritising and investing in disaster risk reduction in Saint Lucia and much of the country’s major disaster risk reduction initiatives are funded via bilateral and international development partner institutions.

The NEMO’s 2019 Annual Report highlights a range of activities undertaken at the national and community level that demonstrate disaster risk reduction investment by both the public and private groups. While these are primarily training and workshops, there was also a project funding by USAID/OFDA at the district level where the Choiseul District farmers benefitted from small grants to support non-infrastructural disaster resilience activities. This involved the planting of Cucus grass (commonly known as Vetivier) that is a proven bioengineering technique to protect slopes from soil erosion and reduce the risk of landslides. Activities conducted in 2019 also showed some inclusion of vulnerable groups, in particular, persons with disabilities. Funded via regional and international partners, the NEMO coordinated workshops for first responders to strengthen their ability to treat with persons with disabilities during response operations, by training persons in sign language, and managing persons with disabilities during disasters. The NEMO also conducted workshops involving persons with disabilities, raising awareness on disaster preparedness and response. Interestingly however, there was little evidence to support planning and inclusion of other vulnerable groups with similar activities.

In 2014, the World Bank provided credit to Saint Lucia for a five year Disaster Vulnerability Reduction Project, demonstrating substantially, Government’s commitment to disaster risk reduction. The facility was distributed across varying sectors and state entities for disaster risk reduction projects. Notwithstanding this, as highlighted within the Country Document for Disaster Risk Reduction (2014), with the exception of the NEMO, disaster risk reduction resources are not dedicated to other state entities and where occurring, address only some of the issues surrounding disaster risk reduction, signifying the need for greater investment across sectors and state institutions.

Project Description

The Retrofitting of 4 Community Centers/ Emergency Shelters  
Ministry of Social transformation and Local Government

Associated Works following Feasibility Study for the development of the Millet Intake within the John Compton Dam Raw Water Supply System  
Water and Sewerage Company Incorporated

Installation of Meters for Non-Revenue Water Programme  
Water and Sewerage Company Incorporated

Civil Works for Optimization of the meteorological and Hydrological Monitoring Network  
Meteorological Services

Civil Works for Strengthening Sea Level Monitoring Network  
Meteorological Services

Improved Drainage Systems in Flood Prone Areas Island-wide  
Ministry of Infrastructure, Port Services, and Transport

Land Stabilization & Road Rehabilitation Post Hurricane Tomas  
Ministry of Infrastructure, Port Services, and Transport

Rehabilitation of Choc Bridge  
Ministry of Infrastructure, Port Services, and Transport

Rehabilitation of Venus-Anse La Raye Road  
Ministry of Infrastructure, Port Services, and Transport

Construction of Bridge to replace the existing Piaye Bridge  
Ministry of Infrastructure, Port Services, and Transport

Marchand River Bank Stabilization  
Ministry of Infrastructure, Port Services, and Transport

Associated Works following Comprehensive Flood Protection Study of Hewanorra International Airport its Environ and George F.L Charles Airport and its Environ and associated works  
Saint Lucia Air and Sea Ports Authority

Integrated Slopes, Landslides and Riverbank Stabilization Project  
Forest Division, Ministry of Agriculture

Rehabilitation of Soufrière Hospital  
Ministry of Health

Construction of Dennery Polyclinic  
Ministry of Health

Construction of Dennery Infant School  
Ministry of Education

Rehabilitation and Retrofitting of Dennery Primary School  
Ministry of Education

Construction of Choisuel Secondary School  
Ministry of Education

National Hazard Mitigation Program Grass Roots Projects  
NEMO

Table 2: Breakdown of Projects under the Disaster Vulnerability Reduction Project

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A National Disaster Fund was established, however, the major drawback is that the mechanisms to fully operationalise the fund have not been instituted\(^{96}\), thereby presenting a significant limitation within the national disaster risk reduction investment profile. Saint Lucia is a member of the Caribbean Catastrophic Risk Insurance Facility (CCRIF) Segregated Portfolio Company, with risk transfer packages for tropical cyclones and earthquakes. Additionally, a Livelihood Protection Policy was instituted by the Eastern Caribbean Global Insurance Company, which is supported by CCRIF\(^{97}\).

Saint Lucia’s Climate Financing Strategy (2020) demonstrates national commitment to access finance to invest in resilience. The Strategy outlines the means and process involved in financing activities under the NAP. Between 2010 and 2015, Saint Lucia received USD 36.71 million in multilateral and bilateral public climate finance from, the vast majority of which was for adaptation projects\(^{98}\). Under these financing arrangements, the largest single contributor was the Climate Investment Fund, which placed emphasis on disaster risk reduction initiatives. Saint Lucia’s

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97 International Bank for Reconstruction and Development. 2017. Advancing Disaster Risk

2016-2017 budget included an investment of USD 31 million (XCD 83.8 million) in adaptation projects, equating to approximately 2% of GDP. Currently, more projects are in the pipeline which show continued investment in building resilience across varying sectors such as water, agriculture, and housing. Some of these initiatives, under the Green Climate Fund include:

- Enhancing the climate resilience of the water sector in Saint Lucia
- Enhancing fisheries and protecting the livelihoods of fisherfolk in the face of a changing climate
- Creating a greener and more resilient health sector in Saint Lucia
- Green affordable housing for all
- Castries Vision 2030 – Low-Carbon Castries Downtown (Focus on the City)

In 2021, Saint Lucia finalised its Nationally Determined Contribution (NDC) Finance Strategy that further solidifies national commitment to investing in resilience. Like the overall Climate Finance Strategy (2020), the NDC Finance Strategy identifies international public finance, domestic public finance and private sector finance as its main sources of funding for mitigation efforts. Despite these meaningful measures to enhance investment, the NDC Finance Strategy reiterates that several barriers limit access to funding for climate change initiatives reinforcing the need to remove these barriers for increased investment. The NDC Financing Strategy presents four mechanisms for strengthening financial support for mitigation targets which include:

- Creating an enabling environment for mitigation projects which will see the redirecting technical assistance to overcome financial barriers and enhance private sector financing
- Scaling up access to international public climate finance
- Increasing private sector participation and investment in climate change mitigation projects by lowering entry barriers
- Greening the financial sector i.e. to embed environmental, social and governance standards into the financial sector

There is a need to strengthen the enforcement of building codes in support of safe housing. As discussed in previous sections, Saint Lucia has significant and growing informal settlements that are susceptible to damage in disaster situations. While there is a building code that recommends a standard for safe home construction, there appears to be little evidence in support of enforcement of these codes. Moreover, risk incentive measures to encourage application of the codes are absent. The 2014 Country Profile for Disaster Risk Reduction further highlights the need to regulate and integrate urban and local development with disaster risk reduction mechanisms such as building codes. The National Disaster Management Policy Framework (2009), posits that incentives for investment in disaster risk reduction activities are lacking. As highlighted in Table 2, there is some level of investment in building the resilience of critical facilities such as schools and hospitals. However, as evidenced by the ad hoc nature of activities, funded predominantly via regional and international partners, there is a need for a structured critical facilities protection strategy.

In 2021, Saint Lucia finalised its Nationally Determined Contribution (NDC) Finance Strategy that further solidifies national commitment to investing in resilience. Like the overall Climate Finance Strategy (2020), the NDC Finance Strategy identifies international public finance, domestic public finance and private sector finance as its main sources of funding for mitigation efforts. Despite these meaningful measures to enhance investment, the NDC Finance Strategy reiterates that several barriers limit access to funding for climate change initiatives reinforcing the need to remove these barriers for increased investment. The NDC Financing Strategy presents four mechanisms for strengthening financial support for mitigation targets which include:

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Priority 4: Enhancing Disaster Preparedness for Effective Response to “Build Back Better” in Recovery, Rehabilitation and Reconstruction

Pre-disaster, preparedness must be strengthened for improved response and recovery. Post-disaster, recovery, reconstruction and rehabilitation provide a unique opportunity for “building back better” so as to minimise the vulnerabilities that existed pre-disaster impact. Enhancing preparedness for effective response to “build back better” involves...
Recovery and Resilience Plan 102 prompted by the policies, with the exception of the recent Economic by the absence of recovery and reconstruction strengthened. This is evidenced most prominently recovery, recovery is highlighted as an area to be (2009) highlights key strategies in support of While the Disaster Management Policy Framework effectively to continue to paths to development. While the Disaster Management Policy Framework (2009) highlights key strategies in support of recovery, recovery is highlighted as an area to be strengthened. This is evidenced most prominently by the absence of recovery and reconstruction policies, with the exception of the recent Economic Recovery and Resilience Plan102 prompted by the COVID-19 pandemic. While the National Emergency Management Plan provides a suite of sub-plans and policies, there is little guidance for recovery. However, the Donations and Importation of Relief Supplies Policies and Guidelines (2009) provides a hopeful and valuable contribution to the recovery aspect within the national framework for disaster management. The Policy provides a framework to guide international assistance post-disaster to ensure receipt and distribution are structured on a needs basis. Despite this, there is an urgent need to strengthen capacity for disaster recovery. The 2018 audit for the CWP process revealed that recovery was the only underperforming phase, thereby signaling an urgent need for action.

A progressive element within the country disaster risk management structure, is the incorporation of District Committees within the national structure for local level disaster management activities. Where this strategy falls short, is in overall effectiveness in building community resilience which is highlighted as an area for action within the 2019 Annual Report by NEMO. This is also evidenced by the limited activities occurring at the community level led by the District Committees within its annual reports. It is important to note however, that many District Committees have been inactive103. Moreover, the absence of community plans places an inherent gap within the overall disaster management structure104. There is therefore an urgent need to strengthen community planning in support of building resilience.

There have been meaningful efforts to promote business continuity planning in the private sector. A key activity within Saint Lucia’s Private Sector Engagement Strategy is to ensure business continuity and management of climate risks within this core stakeholder group105. Furthermore, the economic fallout from COVID-19 made a glaring case for business continuity planning, thus prompting the Government of Saint Lucia to advance efforts to support business continuity planning for Micro, Small and Medium Enterprises (MSMEs). In its Economic Recovery and Resilience Plan106, the Government of Saint Lucia laid the foundation for providing assistance to MSMEs to support efforts to build business continuity in their operations, with an estimated investment of XCD 70,000. The UNDRR has also supported private sector organisations by conducting capacity building initiatives for business continuity planning and instituting the local Private Sector Alliance for Disaster Resilient Societies (ARISE) network which advances business continuity planning and disaster risk reduction efforts for private sector organisations107.

Business continuity planning in the public sector is however, an area for strengthening108. Business continuity planning promotes resilience and allows for expedited recovery and restoration of essential services in the aftermath of a disaster. Yet, these plans are absent within critical government sectors. There is a need to improve training for the development of business continuity plans. Similarly, the Disaster Management Policy Framework (2009) establishes a schedule for exercises to test response and recovery capabilities, mandating one full-scale exercise annually, supported by tabletop exercises and drills. However, the NEMO’s 2019 Annual Report, highlighted only one exercise associated with Caribe Wave, suggesting that the extent of exercises as outlined within the Policy is not fulfilled.

There are early warning systems that support timely response efforts. The most significant of these are within the country’s Meteorological Services that facilitates timely information dissemination regarding weather-related events and flood warnings\textsuperscript{109}. In 2019, the "Strengthen integrated and Cohesive Preparedness Capacity at a Regional, National and Community Level in the Caribbean" initiative, demonstrated progress in the goal of a multi-hazard early warning system (MHEWS) which involved a multi-hazard voice interrupt early warning system in Soufrière in the south of the island. It also involved the launch of hazard public service announcements for hurricanes, earthquakes and tsunamis (covered in both English and Kwéyol) and leadership in the development of a National Multi-Hazard Early Warning Policy. While this Policy has not yet been finalised and approved, it is expected to contribute to the response and recovery capacity of the country.

A Further Look Into Multi-Hazard Early Warning Systems

Effective early warning systems can reduce loss and impacts incurred from hazard occurrences. An early warning system as defined by the UNDRR is “An integrated system of hazard monitoring, forecasting and prediction, disaster risk assessment, communication and preparedness activities systems and processes that enables individuals, communities, governments, businesses and others to take timely action to reduce disaster risks in advance of hazardous events.”\textsuperscript{110} Within this context, four interrelated components underpin early warning systems if they are to be effective:

- Disaster risk knowledge;
- Hazard detection, monitoring and forecasting;
- Warning dissemination and communication and;
- Preparedness and response capabilities\textsuperscript{111}.

Target G of the Sendai Framework for Disaster Risk Reduction calls for a substantial increase in the availability of and access to multi-hazard early warning systems (MHEWS) and disaster risk information and assessments to people by 2030. MHEWS encompass “several hazards and/or impacts of similar or different type in contexts where hazardous events may occur alone, simultaneously, cascadingly or cumulatively over time, and taking into account the potential interrelated effects.”\textsuperscript{112} Cognisant of the multi-hazard context of Saint Lucia, Figure 10 maps the status of MHEWS under the four components of early warning systems, utilising the UNDRR’s Hazard Taxonomy groupings. It is evident that early warning systems for hydrometeorological hazards are more advanced than existing capacities for geological and technological hazards, and there is an overall need to strengthen the MHEWS mechanism for the country.


\textsuperscript{110} https://www.unDRR.org/terminology/early-warning-system#:--text=Annotations%3A%20Effective%20%E2%80%9Cend%20the%20hazards%20and%20possible%20consequences%3B%20%

\textsuperscript{111} https://www.unDRR.org/terminology/early-warning-system#:--text=Annotations%3A%20Effective%20%E2%80%9Cend%20the%20hazards%20and%20possible%20consequences%3B%20%

\textsuperscript{112} https://www.unDRR.org/terminology/early-warning-system#:--text=Annotations%3A%20Effective%20%E2%80%9Cend%20the%20hazards%20and%20possible%20consequences%3B%20%
<table>
<thead>
<tr>
<th>GEOLOGICAL HAZARDS</th>
<th>HYDRO METEOROLOGICAL HAZARDS</th>
<th>ENVIRONMENTAL HAZARDS</th>
<th>BIOLOGICAL HAZARDS</th>
<th>CHEMICAL HAZARDS</th>
<th>TECHNOLOGICAL HAZARDS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6. Landslide</td>
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<tr>
<td></td>
<td>7. Heat &amp; Cold Wave</td>
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</tbody>
</table>

Colour EWS Components Represented

- C1 - Disaster Risk Knowledge
- C2 - Hazard Detection, Monitoring and Forecasting
- C3 - Warning Dissemination and Communication

Colour EWS Components Represented

- C1 - Disaster Risk Knowledge
- C2 - Hazard Detection, Monitoring and Forecasting
- C3 - Warning Dissemination and Communication

Figure 10: Status of MHEWS for Saint Lucia
6. STAKEHOLDER ANALYSIS

The Sendai Framework for Disaster Risk Reduction advocates for shared ownership and partnerships. Similarly, SDG 17 echoes the need for partnership and stakeholder involvement. Partnerships enable access to resources, resource pooling, collaboration and joint action in support of disaster risk reduction and consequently, sustainable development. These are especially paramount to SIDS due to their resource limitations and high vulnerabilities. Saint Lucia's disaster risk reduction agenda has benefited from a range of partnerships and shows promise in its level of stakeholder involvement. At the local level, community involvement is evident via the District Disaster Committees and activities undertaken in 2019 that directly included persons with disabilities. These national partnerships and stakeholders are explored in Section 3.4 of this report.

Of significant importance is Saint Lucia's partnership with regional and international agencies that has allowed the country to leverage resources for disaster risk reduction. In 2014, the World Bank provided via a credit facility, USD 41 million for the Disaster Vulnerability Reduction Project that saw disaster risk management activities being undertaken across a range of state institutions. As a CDEMA Participating State, Saint Lucia has also benefited from financial and technical support from the Agency, such as its Multi-Hazard Early Warning System initiative. Saint Lucia is also eligible to funding from the Caribbean Electric Utilities Services Corporations for post-disaster reconstruction of the electricity network. From a public health perspective, as a CARICOM member, Saint Lucia is also a member of the Caribbean Public Health Agency (CARPHA) which inter alia, supports member countries in preparing for and responding to public health emergencies and threats, and emergency response to disasters.

Several additional institutions have supported Saint Lucia's efforts towards disaster resilience. Funding for community projects have been attained by donor entities such as Japan International Cooperation Agency (JICA), United States Agency for International Development/Office of Foreign Disaster Assistance (USAID/OFDA), Food and Agriculture Organisation of the United Nations (FAO), and Global Environment Facility (GEF). NEMAC's inclusion of civil society organisation also points towards stakeholder inclusion. Involvement of Saint Lucia's private sector is evident through the ARISE Network, the UNDRR's Private Sector Alliance for Disaster Resilient Societies, that creates establishes the public-private partnership between the NEMO and the Chamber of Commerce. Notwithstanding, there is need for further private sector involvement. The country's recent Country Work Programme process found that the private sector must be further engaged as a partner in disaster risk reduction, and the ARISE Network should be an further integrated into the Country Work Programme activities.

Saint Lucia's Voluntary National Review of the 2030 Agenda for Sustainable Development further demonstrated the country's commitment to an all of society approach, founded on private sector, public sector and civil society involvement. Despite these needed measures, there is need to strengthen national partnerships for disaster risk reduction, especially at the regional and international levels to expedite the progress towards sustainable development.

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115 https://carpha.org/Who-We-Are/About
117 George, Andrew. 2020. Integrating climate change and disaster risk reduction agendas. NEMO.
At the time of this study, the world continues in its path to recovery from the COVID-19 pandemic. On March 11, 2020, COVID-19 was declared a pandemic by the World Health Organization. Saint Lucia recorded its first case of the virus on March 13, 2020, an imported case from the United Kingdom. Later on in March 2020, the Government of Saint Lucia established national restrictions to enable early prevention of viral transmission. These restrictions included social distancing measures, suspension of non-essential services and the implementation of a curfew which was followed by the declaration of a state of emergency on March 23, 2020. The Government of Saint Lucia suspended incoming flights to prevent further importation of the virus. On March 30, 2020, the Government of St Lucia, established quarantine facilities in an attempt to curb to spread of the virus, shifting away from home-quarantine, to state quarantine facilities. The subsequent months were followed by a series of tightening and releasing of restrictions dependent on the risk at the time, and a phased reopening process. These early interventions resulted in a period of relatively low case counts where the Center for Disease Control placed the country at a rating of Level 1[119], signifying its successes at minimising the spread of the virus.

The Government of Saint Lucia undertook a series of crucial activities that placed them in an advantageous position in management of the virus. From the onset, the Ministry of Health and Wellness developed the 2019- Novel Coronavirus Preparedness and Response Plan, adopting a multidisciplinary and inter-agency approach to manage the pandemic. The Emergency Powers Act No. 5 of 1995 was also operationalised to institute a State of Emergency to restrict movement and inhibit transmission. Management of the pandemic also saw the NEMAC and NEMO playing active roles. In April 2020, a social protection scheme was established to buffer the economic effects of the pandemic on the vulnerable (such as the poor and newly unemployed) and businesses. By July 2020, Saint Lucia was again open for tourism from select countries. However, by October 2020, the country began experiencing a steady increase in cases and on November 10, 2020, Saint Lucia recorded its first death from the virus. Its deaths statistics as at March 17, 2022 was a total of 365 persons, with 37 active cases, and a seven-day moving average of 7 cases.

On April 7, 2021, Saint Lucia received its first tranche of vaccines via the COVAX facility, a shipment amounting to 24,000 doses[120] with vaccination efforts expected to aid Government’s efforts in managing the pandemic. The NEMAC established by the country’s Disaster Management legislation, has been actively involved in managing the pandemic[121], demonstrating the effectiveness of its governance mechanisms. The 2019 Global Health Security Index, assessing a country’s ability to prevent, detect, respond to health emergencies, along with its health capacity, norms and risks, places Saint Lucia at a score of 35.3 (more prepared), below the global average of 40.2 and ranking 108 out of 195 countries assessed. This highlights the urgent need for strengthening health system resilience to better prevent, respond to and recover from pandemics and health emergencies.

COVID-19, while a public health challenge, has revealed the systemic nature of risk, resulting in impacts across a range of sectors. The pandemic has also exacerbated underlying vulnerabilities. With tourism a mainstay of the economy and the international travel market halted by the pandemic, the economic fall-out of the pandemic has been severe. Caribbean countries are also characterised by large informal sectors that have been significantly impacted by the pandemic, thereby further increasing unemployment rates, poverty and inequality. A 2020 study by ECLAC found that women represent the larger portion of persons employed in the accommodation and food service activities that are key within the tourism sector, thereby suggesting that women have been especially affected by the economic fallout of the pandemic[122]. This further widens inequality gaps. COVID-19 has ultimately slowed the path to achievement of the targets under the 2030 Agenda for Sustainable Development. Despite this, the pandemic also provides an opportunity to “build back better” as the country is on its path to recovery.

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8. SUMMARY OF GAPS

While Saint Lucia's disaster risk management framework suggests continued growth and investment, there remains a number of areas for strengthening to build country resilience to disasters in support of sustainable development. These areas are discussed in detail in previous sections but are summarised below:

- Low human resource capacity within the NEMO
- Insufficient funds allocation to the NEMO
- Unavailability of a Monitoring, Evaluation and Reporting framework for implementation of DRR and the 2030 Agenda
- Unclear responsibilities among stakeholders
- Inadequate coherence across all sectoral and national policies
- Unenforced building codes
- Unavailability of business continuity plans for state institutions

- Unavailability of recovery and reconstruction policies
- Incomplete Multi-Hazard Early Warning System
- Insufficient training and testing
- Limited capacity for pandemic response and recovery

- Unavailability of a formalised public awareness strategy
- Unavailability of disaggregated data
- Limited capacity for data collection, analysis and dissemination
- Inadequate application of GIS technologies for risk mapping and modelling
- Limited integration of CDM into education curricula

- Inadequate business continuity planning for sectors
- Inadequate mainstreaming across sectors
- Insufficient investment in sectoral mainstreaming

- Limited considerations for all vulnerable groups, including the elderly, women and children
- Unavailability of community plans
- Inactive District Committees

Figure 11: Summary of gaps within the disaster management framework
### 9. PRIORITY AREAS FOR ACTION

The problems, issues and needs as revealed by this study have informed the recommendation of potential priority areas for the implementation of the existing Country Work Programme as well other national and sectoral policies and strategies, in support of a resilient nation and the sustainable development agenda. Table 3 establishes these priority areas into outcomes and outputs for the policy environment. Considerations for gender, climate change, ICT and environmental sustainability should be treated as cross-cutting themes, in keeping with the CDM Strategy and Programming Framework 2014-2024.

<table>
<thead>
<tr>
<th>OUTCOMES</th>
<th>OUTPUTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Strengthened institutional arrangements for disaster risk reduction.</strong></td>
<td><strong>1.1</strong> Strengthened institutional arrangements for policy coherence and harmonisation for disaster risk reduction, climate change adaptation and sustainable development.</td>
</tr>
<tr>
<td></td>
<td><strong>1.2</strong> Comprehensive Disaster Management (Amendment) Bill finalised and operationalised.</td>
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<td><strong>1.3</strong> Risk incentives instituted for mitigation practices, including safe construction.</td>
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<td><strong>1.4</strong> Increased investment and capacity building for the NEMO.</td>
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<tr>
<td></td>
<td><strong>1.5</strong> Strengthened institutional arrangements for coordination and collaboration among state stakeholders.</td>
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<td><strong>1.6</strong> Increased capital investment in the NEMO to finance disaster risk reduction projects.</td>
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<tr>
<td></td>
<td><strong>1.7</strong> National Disaster Fund operationalised.</td>
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<td></td>
<td><strong>1.8</strong> Strengthened financial mechanisms to meet climate change mitigation targets under the Nationally Determined Contribution.</td>
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<tr>
<td></td>
<td><strong>1.9</strong> Building codes enforced.</td>
</tr>
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<td></td>
<td><strong>1.10</strong> Critical facilities protection strategy developed and operationalised.</td>
</tr>
<tr>
<td></td>
<td><strong>1.11</strong> National School Safety Policy finalised and operationalised.</td>
</tr>
<tr>
<td></td>
<td><strong>1.12</strong> Business continuity planning strengthened across public sector institutions.</td>
</tr>
<tr>
<td></td>
<td><strong>1.13</strong> Improved monitoring, evaluation and reporting for targets under the 2030 Agenda.</td>
</tr>
<tr>
<td><strong>2. Enhanced planning for response, recovery and rehabilitation.</strong></td>
<td><strong>2.1</strong> National recovery and reconstruction policies instituted.</td>
</tr>
<tr>
<td></td>
<td><strong>2.2</strong> MHEWS capacity enhanced and the National MHEWS Policy developed and operationalised.</td>
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<tr>
<td></td>
<td><strong>2.3</strong> Training and exercise strategy enforced.</td>
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<td></td>
<td><strong>2.4</strong> Improved preparedness for biological hazards and pandemics.</td>
</tr>
<tr>
<td>OUTCOMES</td>
<td>OUTPUTS</td>
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<tr>
<td>3. Increased and sustained knowledge management for disaster risk reduction.</td>
<td>3.1 Improved National Risk Register to account for the broad range of hazards under the hazard taxonomy, and to include the elements of vulnerability and exposure.</td>
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<tr>
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<td>3.2 Local knowledge integrated into risk planning and management.</td>
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<td>3.3 Enhanced ICT applications and institutional support across stakeholders within the National Statistical System for improved data collection, analysis and dissemination.</td>
</tr>
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<td></td>
<td>3.4 Strengthened capacity for hazard mapping and modelling.</td>
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<td>3.5 Enhanced strategy to support public awareness and education for disaster risk reduction.</td>
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<td></td>
<td>3.6 Comprehensive disaster management integrated into education curricula at all levels.</td>
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<tr>
<td>4. Disaster risk reduction mainstreamed into sectors.</td>
<td>4.1 Increased sectoral investment and capacity building for disaster risk reduction mainstreaming</td>
</tr>
<tr>
<td></td>
<td>4.2 Enhanced planning and integration of disaster risk reduction and climate change adaptation into sectors.</td>
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<tr>
<td></td>
<td>4.3 Medium Term Development Strategy and the Disaster Management Policy Framework enhanced to recognise critical sectors to disaster risk reduction, including water, housing and land-use planning.</td>
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<tr>
<td>5. Strengthened community resilience.</td>
<td>5.1 Enhanced activities to support disaster risk reduction at the community level for vertical integration</td>
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<td>5.2 Improved planning for and inclusion of vulnerable groups in disaster risk reduction.</td>
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<td></td>
<td>5.3 Community disaster plans developed and operationalised.</td>
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<td></td>
<td>5.4 Enhanced arrangements for the operationalisation and sustainability of all District Committees.</td>
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</table>

Table 3: Priority Areas for the Consideration in the Country Work Programme and National/ Sectoral Policies and Strategies

These proposed interventions should be deliberated through stakeholder consultations to agree on the priority areas for national policies and strategies and further elaborate the activities, timeframes, budgets and indicators for implementation of activities in support of the outcomes.
Addressing Systemic Risk

COVID-19 has served as the clarion call for systemic risk planning. Hazards and their impacts are not isolated and this is especially the case for climate change that is itself a complex risk with the potential to result in direct and cascading impacts across sectors and systems. Systemic risk planning must be at the forefront. Countries are now challenged to strengthen risk governance for risk-informed sustainable development that is underpinned by the understanding of systemic risk and the integration of systems-based approaches across governance arrangements and tools\(^{123}\). In its path to recovery and realigning actions to strengthen resilience and regenerate sustainable development, Saint Lucia, like its Caribbean counterparts, must strengthen efforts to advance systemic risk planning including:

1. **Improving mechanisms to access, analyze, visualize and share data**

   In keeping with the Global Risk Assessment Framework and the Sendai Framework, systemic risk planning must be supported by data across sectors and systems. Understanding systemic risk calls for multi-stakeholder dialogue and collaboration that enables the consolidation of risk data (including the complex nature of vulnerability, hazards and exposures) in support of improved analytical approaches to understanding the dynamic and interconnected nature of risk, and the cascading impacts across sectors and systems\(^{124}\).

2. **Improving inter-disciplinary, cross-sectoral, and multi-stakeholder involvement in disaster risk reduction**

   Beyond the need for multi-stakeholder involvement in risk data compilation, is the need for strengthened institutional mechanisms that create a platform for enhanced cooperation across stakeholders for actions geared towards addressing the underlying risk drivers. Institutional mechanisms must therefore support collaboration across state (interministerial and sectoral collaboration at national and subnational levels) and non-state actors, including civil society, private sector, academia, and the media. Systemic risk planning calls for a paradigm shift from recognising the national disaster offices as the main entity for risk reduction, to mainstreaming risk reduction and management across the spectrum of stakeholders.

3. **Strengthening efforts to mainstream disaster risk reduction into development planning**

   Mainstreaming risk reduction into development planning supports risk-informed policies and actions across sectors for systemic risk planning\(^{125}\). Development pillars and sectors must integrate risk planning into activities in support of resilience. Key sectors such as health, tourism, transportation, housing, urban development, agriculture, water, etc. must be equipped with the necessary capacities to promote mainstreaming so as to address the underlying drivers of risk that contribute to system failure when risk is realised.

4. **“Building back better” and integrating risk into recovery plans\(^{126}\)**

   In its path to recovery from COVID-19, Saint Lucia has prepared a suite of recovery tools that aim to regenerate growth and sustainable development. Saint Lucia’s Economic Recovery and Resilience Plan is set to steer the state towards a path of resilience by targeting critical development components including health, economic growth, social protection, disaster risk reduction and climate change. Interventions must recognise that risk encompasses all sectors and systems. Recovery tools must therefore ensure that there is an explicit appreciation for systemic risk planning, propelling the paradigm shift from response to risk

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management, integrating mitigation, preparedness and monitoring into disaster risk management processes.  

5. Understanding existing capacities and gaps, and strengthening arrangements

Finally, adopting and promoting systemic risk planning must first commence with an in-depth assessment of national capacities, policies and frameworks, and understanding where there may be shortfalls. In recovery from the fallout of the pandemic and in strengthening resilience for future risks, countries must commence with a review of existing institutional and governance mechanisms to understand the barriers to effective systemic risk planning. This report provides useful information that can support Saint Lucia in understanding some of its existing capacities and areas for intervention to advance systemic risk planning efforts.

10. CONCLUSION

Effective disaster risk reduction demands adequate governance and shared ownership across all of society. Saint Lucia's national framework illustrates the country's commitment to disaster risk reduction and consequently sustainable development. The varying national instruments, chief of these its legislation, coupled with its wide-reaching stakeholder base are major strengths that build country capacity for disaster resilience. Moreover, Saint Lucia continues to demonstrate economic and social growth with reducing equalities that signify the underlying drivers of vulnerability and disaster risk are being addressed. Despite these crucial progressive measures to date, this study revealed several areas for strengthening. These include planning for recovery with the aim of “building back better”, increasing resource investments for disaster risk management, and deliberate and enforced activities for mainstreaming disaster risk reduction into development activities. The very present threat of climate change and its cascading impacts, especially for SIDS like Saint Lucia, must not be forgotten. Climate change can exacerbate disaster risk (creating new and augmenting existing ones), demanding that there are considered efforts for both mitigation and adaptation. Both climate change and disaster risk hinder the path to sustainable development if not thoughtfully considered and planned for. As such and as advocated by the Sendai Framework for Disaster Risk Reduction and the SDGs, there is an urgent need for policy coherence which ensures coordinated and consolidated efforts while maximising on limited resources.

Saint Lucia’s Department of Sustainable Development is well-poised to ensure coordination and coherence across the national environment in support of building resilience and sustainable development. Furthermore, the Medium Term Development Strategy (2020-2023) serves as a significant entry point for mainstreaming and harmonisation of agendas. As the world recovers from the COVID-19 pandemic, other risks remain present. The pandemic has also exposed and even widened underlying vulnerabilities at varying levels. Therefore, there is urgent need for continued planning and improvement to systemically address risk in all its dimensions and complexities. All of society must be involved if disaster risk planning is to be effective. This study explored the varying underlying dimensions of risk and capacities that create the risk profile for Saint Lucia. These findings will be useful in setting the foundation for sectoral policies and strategies in support of the 2030 Agenda, and in supporting the implementation of its Country Work Programme.
REFERENCES


George, Andrew. 2020. Integrating climate change and disaster risk reduction agendas. NEMO.


International Bank for Reconstruction and Development. 2017. Advancing Disaster Risk


Organisation of Eastern Caribbean States. 2006. St. George’s Declaration of Principles for Environmental Sustainability in the OECS.


## APPENDICES

### Appendix I: Risk Components

#### Hazards

<table>
<thead>
<tr>
<th>HAZARD CATEGORY</th>
<th>HAZARD CLUSTER</th>
<th>HAZARDS IDENTIFIED</th>
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<tr>
<td>Hydro-meteorological</td>
<td>Convective-related</td>
<td>Thunderstorm</td>
<td>Saint Lucia Country Profile for Disaster Risk Reduction, 2014 at</td>
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<td>water</td>
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<td>Saint Lucia Country Profile for Disaster Risk Reduction, 2014 at</td>
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<td>cyclones</td>
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<tr>
<td>Extraterrestrial</td>
<td>Seismogenic (earthquakes) Earthquake Ground shaking</td>
<td>Not considered in country documents.</td>
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<td>Nationally Determined Contribution, 2020 at <a href="https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Saint%20Lucia%20First/Saint%20Lucia%20First%20NDC%20(Updated%20submission).pdf">https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Saint%20Lucia%20First/Saint%20Lucia%20First%20NDC%20(Updated%20submission).pdf</a></td>
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<td>Eutrophication</td>
<td><a href="http://www.oas.org/reia/iwcam/pdf/St.%20Lucia/Chapter%202.PDF">http://www.oas.org/reia/iwcam/pdf/St.%20Lucia/Chapter%202.PDF</a></td>
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<td>Cyber hazard</td>
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<td>Cyber hazard</td>
<td>Malware</td>
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<td>Industrial failure / non-compliance</td>
<td>Leak</td>
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<td>Spill</td>
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<td>Industrial failure / non-compliance</td>
<td>Fire</td>
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APPENDIX II: Legislative Instruments in support of Environmental Management

- Physical Planning and Development Act 21 of 2001  Development Control Authority
- Public Health Act of 1975 and Regulations
- The Pesticides and Toxic Chemicals Control Act 1975
- National Trust Act 1975
- Solid Waste Management Authority Act No 8 of 2004, Amendment of No 10 of 2007
- Forest Soil and Water Conservation Ordinance 1946 (amended in 1957 and 1983)
- Fisheries Act 1984
- Wildlife Protection Act 1964
- Motor Vehicle and road Traffic Act 2003
- Beach Protection Ordinance 1963
- Disaster Management Act 30 of 2006
- Emergency Powers (Disasters) Act 5 of 1995
- Water and Sewage Act 2005 with amendment in 2008
- Occupational Health and Safety Act 10 of 1985
APPENDIX III: NEMAC Membership

Part III, 8 (1) of the Disaster Management Act 30 of 2006 that establishes the membership of NEMAC as follows:

(a) the Minister responsible for disaster management as Chairperson;

(b) another Minister or public officer nominated by the Minister responsible for disaster management to serve as Chairperson in the absence of the Minister;

(c) such other members as may be nominated by the Minister responsible for disaster management to represent —

(i) the Police Force;
(ii) the Special Service Unit;
(iii) the Fire Service;
(iv) the Ministry responsible for public health and the environment;
(v) the Ministry responsible for public works;
(vi) the Ministry responsible for local government;
(vii) such other Ministries, Departments of Government and statutory bodies as the Minister responsible for disaster management thinks fit;
(vii) such other persons or organizations as the Minister responsible for disaster preparedness and response thinks fit who volunteer or are required by law to perform functions related to the mitigation of, preparedness for, response to and recovery from emergencies and disasters
APPENDIX IV: NEMO MEMBERSHIP

Membership of NEMO as established within the Disaster Management Act No 30 of 2006

1. Chairman – Minister responsible for disaster preparedness and response
2. Deputy Chairman – Cabinet Secretary
3. Director – NEMO
4. Deputy Director – NEMO
5. Admin Secretary
6. Commissioner of Police
7. Chief Fire Officer
8. Chief Medical Officer
9. PS – Ministry of Finance
10. PS – Ministry of Public Service
11. PS – Ministry of Foreign Affairs
12. PS – Ministry of Planning
13. PS – Ministry of Tourism
14. PS – Ministry of Agriculture
15. PS – Social Transformation
16. Director - Meteorological Services
17. Comptroller - Customs and Excise
18. Coordinator - Crisis Management Unit
19. Chairman, Damage Assessment and Needs Analysis National Committee
20. Chairman, Telecommunications National Committee
21. Chairman, Transportation National Committee
22. Chairman, Welfare National Committee
23. Chairman, Emergency Works National Committee
24. Chairman, Supply Management National Committee
25. Chairman, Emergency Shelters National Committee
26. Chairman, Information National Committee
27. Chairman, Oil Spills National Committee
28. Director General, Saint Lucia Red Cross
29. Chief of Ports Police, Saint Lucia Air and Sea Ports Authority
30. General Manager, Saint Lucia Air and Sea Ports Authority
31. Coordinator Crisis Management Unit: Ministry of Tourism
32. Chairman, District Disaster Committee Vieux Fort South
33. Chairman, District Disaster Committee Vieux Fort North
34. Chairman, District Disaster Committee Gros Islet
35. Chairman, District Disaster Committee Castries North West/Babonneau
36. Chairman, District Disaster Committee Castries North
37. Chairman, Chairman, District Disaster Committee Castries South
38. Chairman, District Disaster Committee Castries South East
39. Chairman, District Disaster Committee Castries East
40. Chairman, District Disaster Committee Dennery North
41. Chairman, District Disaster Committee Dennery South
42. Chairman, District Disaster Committee Micoud North
43. Chairman, District Disaster Committee Micoud South
44. Chairman, District Disaster Committee Laborie
45. Chairman, District Disaster Committee Choiseul
46. Chairman, District Disaster Committee Soufrière
47. Chairman, District Disaster Committee Canaries
48. Chairman, District Disaster Committee Anse la Raye
APPENDIX V: District Disaster Committees

1. Gros Islet
2. Castries North
3. Babonneau
4. Castries South East
5. Castries East
6. Castries Central
7. Castries South
8. Anse La Raye
9. Canaries
10. Soufrière
11. Choiseul
12. Laborie
13. Vieux Fort North
14. Vieux Fort South
15. Micoud North
16. Micoud South
17. Dennery North
18. Dennery South

APPENDIX VI: PRIORITY SECTORS

• Agriculture
• Tourism
• Financial
• Health
• Forestry and Biodiversity
• Water Resources
• Marine and Coastal Resource Coastal Zone and Human Settlements
• National Security