CPDC
Caribbean Policy Development Centre

CARIBBEAN EMANCIPATION 2030

A SOVEREIGN DEBT AND CLIMATE JUSTICE INITIATIVE FOR CARIBBEAN SIDS

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TABLE OF CONTENTS

TABLE OF CONTENTS 3
LIST OF FIGURES 5
LIST OF TABLES 6
LIST OF BOXES 6

Executive Summary

Background 7

Introduction

CHAPTER 1 11

Development Characteristics of Caribbean Sids

CHAPTER 2 14

The Silent Debt Crisis of Caribbean Sids

CHAPTER 3 19
- CHANGING FACE OF DEBT IN THE CARIBBEAN 24
- SOVEREIGN DEBT RESTRUCTURING EPISODES 27
- DEBT SUSTAINABILITY IN THE SIX VERY HIGHLY INDEBTED CARIBBEAN SIDS 34
- PROSPECTS FOR DEBT SUSTAINABILITY IN THE CARIBBEAN-6 36

Climate Change and Natural Disasters in The Caribbean

CHAPTER 4 37

Climate Risk Vulnerability and the Cost of Sovereign Borrowing in the Caribbean Region

CHAPTER 5 43
- CLIMATE RISK AND CREDIT RATING AGENCIES 44
- SOVEREIGN CREDIT RATINGS IN THE CARIBBEAN 44
- CLIMATE VULNERABILITY AND SOVEREIGN DEBT 46

Potential Climate Disaster Risk Finance and Insurance (CDRFI) Solutions in Caribbean Sids

CHAPTER 6 49

TABLE OF CONTENTS (cont'd)

ROLE AND EMERGENCE OF CDRFI SOLUTIONS 50
CDRFI INSTRUMENTS FOR GOVERNMENTS 52
CONTINGENCY RESERVES 52
CONTINGENT CREDIT LINES 53
RISK TRANSFER: INSURANCE 55
SOVEREIGN RISK INSURANCE AND REGIONAL INSURANCE POOL: CCRIF 55
RISK TRANSFER: CATASTROPHE BONDS AND CAPITAL MARKETS 59
CASE STUDY: DOMINICA - EXPANDING CLIMATE DISASTER RISK FINANCING INSURANCE(CDRFI) OPTIONS 60
APPLYING A CDRFI APPROACH TO ADAPTIVE SOCIAL PROTECTION (ASP) PROGRAMS 61

Potential Economic Assessment of Climate-Related Natural Hazards on Three Caribbean Sids (Antigua & Barbuda, Barbados and Grenada)

CHAPTER 7 65
INCIDENCE OF NATURAL DISASTERS 66
MACROECONOMIC IMPLICATIONS OF NATURAL DISASTERS 68
CASE STUDY: GRENADA - NATURAL DISASTER RISK FINANCING LAYERING 72
CONTINGENCY RESERVES 72
CONTINGENT CREDIT LINES 72
PARAMETRIC INSURANCE 73
HURRICANE CLAUSE 73

Feasibility of a Debt for Climate Swap in Grenada

CHAPTER 8 75

Evaluation of the IMF's Resilience and Sustainability Trust (RST)

CHAPTER 9 80

Global Policy Frameworks and Agreements that can Anchor Sovereign Debt and Climate-Related Disasters

CHAPTER 10 83
THE BRADY PLAN 84
THE ENHANCED HEAVILY INDEBTED POOR COUNTRIES (HIPC) INITIATIVE 86
THE DEBT SERVICE SUSPENSION INITIATIVE (DSSI) 87
THE COMMON FRAMEWORK FOR DEBT TREATMENTS 88
DEBT FOR CLIMATE SWAPS 88
THE IMF'S DISASTER RESILIENCE STRATEGY (DRS) FRAMEWORK 88

TABLE OF CONTENTS (cont'd)

Caribbean Emancipation 2030: A Proposed Sovereign Debt and Climate Justice Initiative

CHAPTER 11 92
PROPOSED GUIDING PRINCIPLES 93
OPERATIONAL FRAMEWORK 94

Caribbean Emancipation 2030: Advocacy Framework and Narrative

CHAPTER 12 97
JUBILEE 2000 CAMPAIGN 98
FIVE ELEMENTS FOR A SUCCESSFUL CARIBBEAN EMANCIPATION 2030 CAMPAIGN 98
THE NATURE OF THE ISSUE 98
THE MESSAGE 99
THE MESSENGERS 99
AN EXCELLENT INSIDE STRATEGY 100
DIFFERENTIATED INTERNATIONAL STRATEGY 100
DRAFT NARRATIVE FOR CARIBBEAN EMANCIPATION 2030 101

REFERENCES 104

LIST OF FIGURES

Figure 1. SIDS: Gross Public Debt, 2020 (% of GDP) 8
Figure 2. Caribbean SIDS: Gross Public Debt (2020, % Of GDP) 20
Figure 3. Tropical Storm Activity in The North Atlantic Basin, 1950-2021 21
Figure 4. Forecasted Increases in Annual Interest Costs Due to Climate Vulnerability, 2011-2030 (US$ Million) 48
Figure 5. Transaction Structure for Jamaica's CAT Bond 59
Figure 6. National Disaster Resilience Strategy (Three Complementary Pillars) 89
Figure 7. Caribbean Emancipation 2030 Sovereign Debt Climate Change Initiative 95

LIST OF TABLES

Table 1. Caribbean SIDS: Selected Economic Characteristics, 2020 ..... **16**
Table 2. Caribbean SIDS: Number Of Hurricanes, Deaths, Persons Injured, Persons Affected and Total Damages per Decade, 1950-2021 ..... **22**
Table 3. Hurricane Damages Per Caribbean SIDS, 1950-2021 (2020 Constant US$ Mn) **22**
Table 4. Caribbean SIDS: Creditor Composition of Public External Debt (2020, US$ Millions) **26**
Table 5. Caribbean SIDS: Debt Owed to China **27**
Table 6. Caribbean SIDS: Characteristics of Sovereign Debt Restructuring Exercises, 2000-2021 ..... **28**
Table 7. Post Debt Restructuring Outcomes in Selected Caribbean SIDS (Public Debt In % Of GDP) **31**
Table 8. Caribbean-6: Debt Sustainability Analysis **36**
Table 9. Credit Rating History of Caribbean SIDS **45**
Table 10. Sovereign Credit Rating Scale **45**
Table 11. Cost of Sovereign Debt in The S&P Credit Rating Universe **47**
Table 12. Climate and Disaster Risk Finance and Insurance (CDRFI) Instruments and Target Groups **51**
Table 13. CCRIF Member Countries and Payouts, 2007-2021 ..... **56**
Table 14. Dominica: Impact of Major Climatic Shocks, 1979-2017 ..... **60**
Table 15. CCRIF Payouts to Dominica, 2007-2021 ..... **60**
Table 16. Dominica's CRRP Goals and Targets **61**
Table 17. Major Hurricanes in C-3 Countries, 1950-2021 ..... **66**
Table 18. Worldwide Incidence of Natural Disasters, 1970-2002 ..... **67**
Table 19. Climate Risk Index For C-3 Countries, 1996-2015, 2015, and 2019 ..... **68**
Table 20. Impact Of Hurricane Ivan on Macroeconomic Outcomes in Grenada **70**
Table 21. Macroeconomic Risks From Climate Change **71**
Table 22. Grenada: Structure of External Debt, 2020 ..... **78**
Table 23. Selected Brady Bond Issues **85**

LIST OF BOXES

Box 1. Barbados Debt Restructuring 2018-2019 ..... **29**
Box 2. Impact of Hurricane Irma **39**
Box 3 Impact of Hurricane Maria **40**
Box 4. Impact of Hurricane Dorian On the Bahamas **41**
Box 5. FONDEN: Mexico's Trust for Natural Disasters **53**
Box 6. World Bank's Catastrophe Deferred Drawdown Option (The CAT DDO) **54**
Box 7. Use of Risk Layering in Adapting Malawi's Social Protection Program **64**
Box 8. Review of Literature On Macroeconomic Implications of Natural Disasters **69**
Box 9. Barbados Natural Disaster Clause **74**

Executive Summary

> *We cannot walk head on, eyes wide open, into a debt crisis that is foreseeable and preventable. Many developing Countries face financing constraints that mean they cannot invest in recovery and resilience.*

Mr. Antonio Guterres, UN Secretary General. Opening Ceremony of the United Nations Conference on Trade and Development (UNCTAD 15), October 4th, 2021.

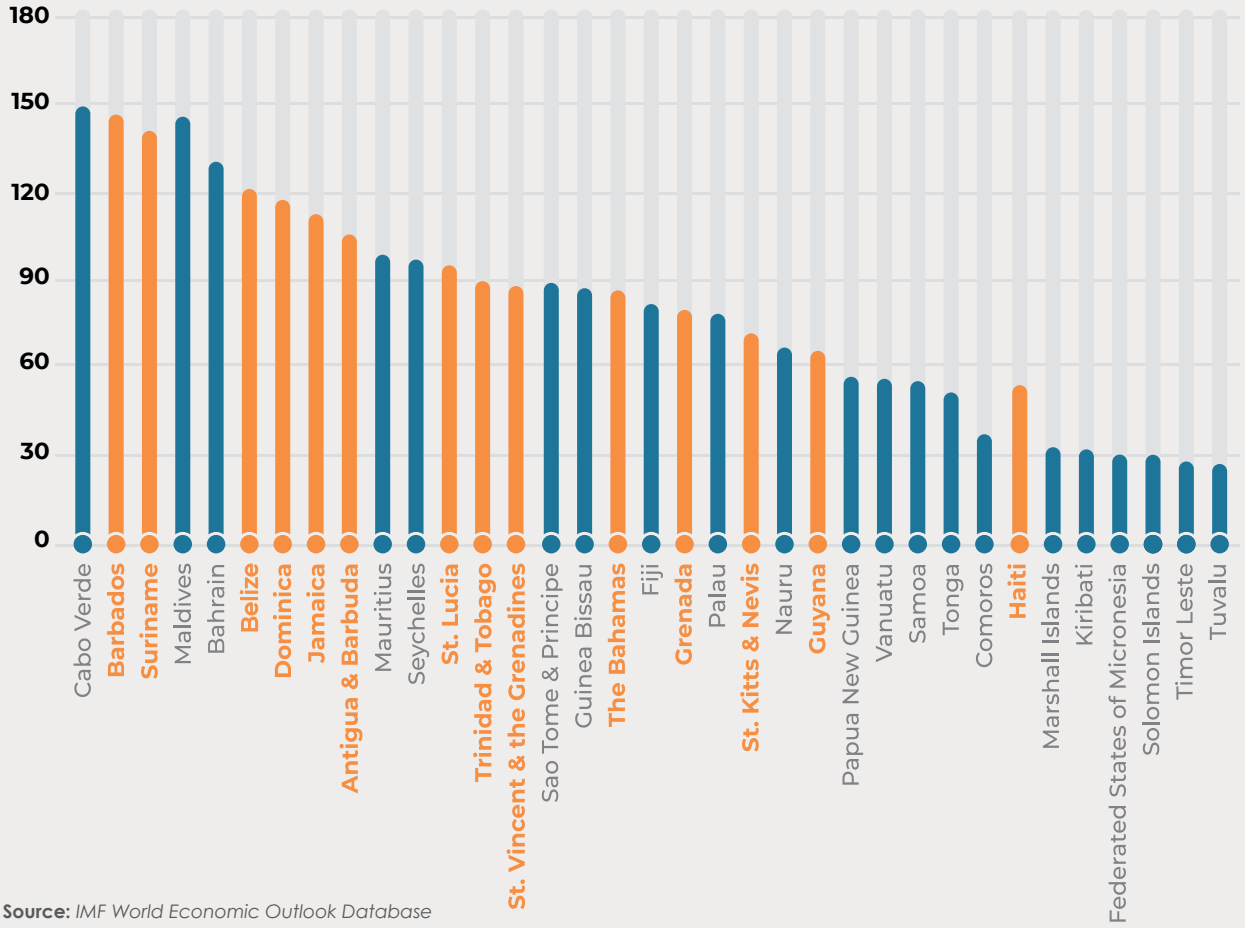
> *We come to Glasgow with global ambition to save our planet and people. But we now find gaps, on mitigation, climate pledges. Without more, we will leave the world on pathway to 2.7 degrees and with more, we are still likely to get 2 degrees.*

Ms. Mia Mottley, Prime Minister, Barbados. Opening Ceremony of UN Climate Change Conference COP26, November 4th, 2021.

Background

Small Island Developing States (SIDS) in the Caribbean[1] are a special category of countries at the crossroads of two looming, inter-related crises: sovereign debt and climate change. Caribbean nations have been gripped by a silent debt crisis over the past three decades, experiencing chronic stagnant growth and rising public debt which have placed them among the most heavily indebted SIDS worldwide. At the end of 2020, six Caribbean countries – Barbados, Suriname, Belize, Dominica, Jamaica and Antigua & Barbuda - ranked in the top 10 of the world's most highly indebted SIDS (see **Figure 1**), with their public debt stock beyond 100 percent of GDP. An important factor underlying the unsustainable debt overhang in the Caribbean is the link to climate change effects, especially more frequent and intense tropical storms and hurricanes. Many Caribbean SIDS are located within the path traversed by storms in the North Atlantic basin. Since around 1995, there appears to be an acceleration in the number of tropical storm activity in the North Atlantic basin, marked by a distinct increase in the number of intense hurricanes. For some Caribbean SIDS, the damages from these natural disasters well exceed the size of the economy. Hurricane Maria – a powerful Category 5 hurricane – caused destruction to Dominica estimated at 225 percent of the country's GDP in 2017. In Grenada and St. Kitts and Nevis the damage was equivalent to more than one year of economic activity, after the passage of Hurricane Ivan in 2004 and Hurricane Georges in 1998, respectively. According to the EM-DAT database which records disasters throughout the world, the 89 hurricanes (for which data are available) that have hit the Caribbean over the past 70 years from 1950 to 2021, killed some 13,470 people, affected almost 10 million through injury and loss of homes and livelihoods, and caused damages of over US$30 billion (in constant 2020 US$).

FIGURE 1: SIDS: GROSS PUBLIC DEBT, 2020 (% OF GDP)



Source: *IMF World Economic Outlook Database*

1 The United Nations officially recognizes 16 Caribbean SIDS. In this study, however, the term 'Caribbean SIDS' refers to 14 countries which are members of the Caribbean Community (CARICOM), the regional integration movement. They comprise the ten island economies of Antigua & Barbuda, the Bahamas, Barbados, Dominica, Grenada, Jamaica, St. Kitts & Nevis, St. Lucia, St. Vincent & the Grenadines, and Trinidad & Tobago, and the four mainland countries of Belize, Haiti, Guyana and Suriname. The other two Caribbean SIDS of Cuba and the Dominican Republic are excluded from this study since they are not members of CARICOM.

In the aftermath of these destructive natural disasters, Caribbean governments with already limited fiscal space have little choice but to reallocate budgetary resources, engage in external borrowing or wait on donor aid to fund the large and unexpected public spending required for emergency response, economic recovery and longer-term reconstruction efforts. This is partly because Ministries of Finance in Caribbean SIDS are yet to fully integrate Climate and Disaster Risk Finance and Insurance (CDRFI) solutions such as parametric insurance and catastrophe bonds into their wider macro-fiscal frameworks to better manage climate-related shocks. CDRFI solutions allow governments to transfer disaster risks to the markets and to rapidly access payouts in the event of a major disaster. Applying the principles of CDRFI to shock responsive or adaptive social protection (ASP) schemes can help governments to ensure that assistance reaches affected communities as soon as possible following a disaster. Since many Caribbean SIDS are revising their national climate adaptation plans in the aftermath of COP 26, there is an opportunity to integrate CDRFI solutions into their fiscal and budgetary planning and their social protection programs.

The ability of Caribbean countries to manage their debt is complicated by the changing composition of the debt. They now owe more money to a broader range of creditors. In 2020, Caribbean SIDS had a total external debt stock of over US$30 billion. Of this total, almost US$14.5 billion or nearly half was owed to private creditors. Private creditors comprise insurance companies, pension funds, hedge funds, investment banks and high-net worth individuals. Caribbean SIDS owe more than US$10.5 billion or 33 percent of total external debt to multilateral creditors. Multilateral creditors include the International Monetary Fund (IMF), the World Bank and other multilateral development banks such as the Inter-American Development Bank (IDB). The remaining debt of just over US$5 billion or 15 percent of total external debt is owed to bilateral creditors. In the past, bilateral creditors were primarily the rich Western countries like the United States and the United Kingdom which form part of the Paris Club group. Bilateral creditors have expanded to now include non-Paris Club countries, especially China which has become the most important bilateral lending partner in the Caribbean.

Several Caribbean SIDS have restructured their debt over the past two decades, but they have not been able to lock in the durable gains of debt relief, leading to repeated debt restructuring in a few countries while others still remain highly indebted. A sovereign debt restructuring exercise is likely to take place in the Caribbean nearly every year. During the twenty-one years between 2000 and 2021, eighteen episodes of sovereign debt restructuring operations were concluded in seven Caribbean SIDS – Antigua & Barbuda, Barbados, Belize, Dominica, Grenada, Jamaica, and St. Kitts and Nevis. At the end of June 2022, Suriname is still engaged in debt restructuring negotiations with its external creditors, a process which it started since September 2020. Any new sovereign debt restructuring strategy for Caribbean SIDS must recognize the very critical role of China, which has become the most important bilateral creditor in the Caribbean.

Without substantial debt relief, projections for the future debt sustainability of Caribbean SIDS are grim. Besides the numerous lives lost and the debilitating impact on the long-term health of Caribbean people, the protracted COVID-19 pandemic has further pushed public debt to new heights. Moreover, since April 2022, Caribbean SIDS have found themselves facing the most consequential geopolitical and geo-economics shock of the past three decades. The war in Ukraine is raising uncertainty about the outlook for the world economy and its effects on food and energy prices are likely to further undermine debt sustainability in the Caribbean. Rising interest rates in the United States will further drive up the cost of debt and make international refinancing ever harder for those Caribbean SIDS that still maintain access to global capital markets. Climate change is likely to worsen the precarious debt burden of Caribbean SIDS. Climate projections suggest that as the century progresses, the Caribbean is expected to be much warmer and drier, with higher sea levels and prone to more intense storms. By 2030, when the United Nations' 2030 Agenda for Sustainable Development on reducing poverty and meeting other Sustainable Development Goals (SDGs) comes to an end, debt is likely to remain unsustainable in many Caribbean SIDS. Except for Jamaica, in these other Caribbean countries, reducing public debt to a more sustainable 60 percent of GDP requires them to maintain sizeable primary fiscal surpluses over a protracted period, which is highly questionable based on their unsatisfactory track record of fiscal performance.

Collectively, these findings make a compelling special case for urgently resolving the looming twin debt and climate change crises in Caribbean SIDS. Caribbean governments have been among the most outspoken in the world highlighting the severity of their middle-income debt crisis. For example, they were instrumental in lobbying the Alliance of Small Island Developing States (AOSIS) to issue in July 2020 one of the few collective statements on debt at the UN General Assembly, calling for global action to deliver debt relief and resilience financing to developing countries. However, a lack of regional coordination regrettably hampered sustained advocacy on the developing country debt issue into a collective movement for change. In the absence of a new, meaningful initiative, there is a real danger that Caribbean SIDS would lose sustainable development opportunities in the first three decades of the twenty-first century while still grappling with a crippling debt overhang.

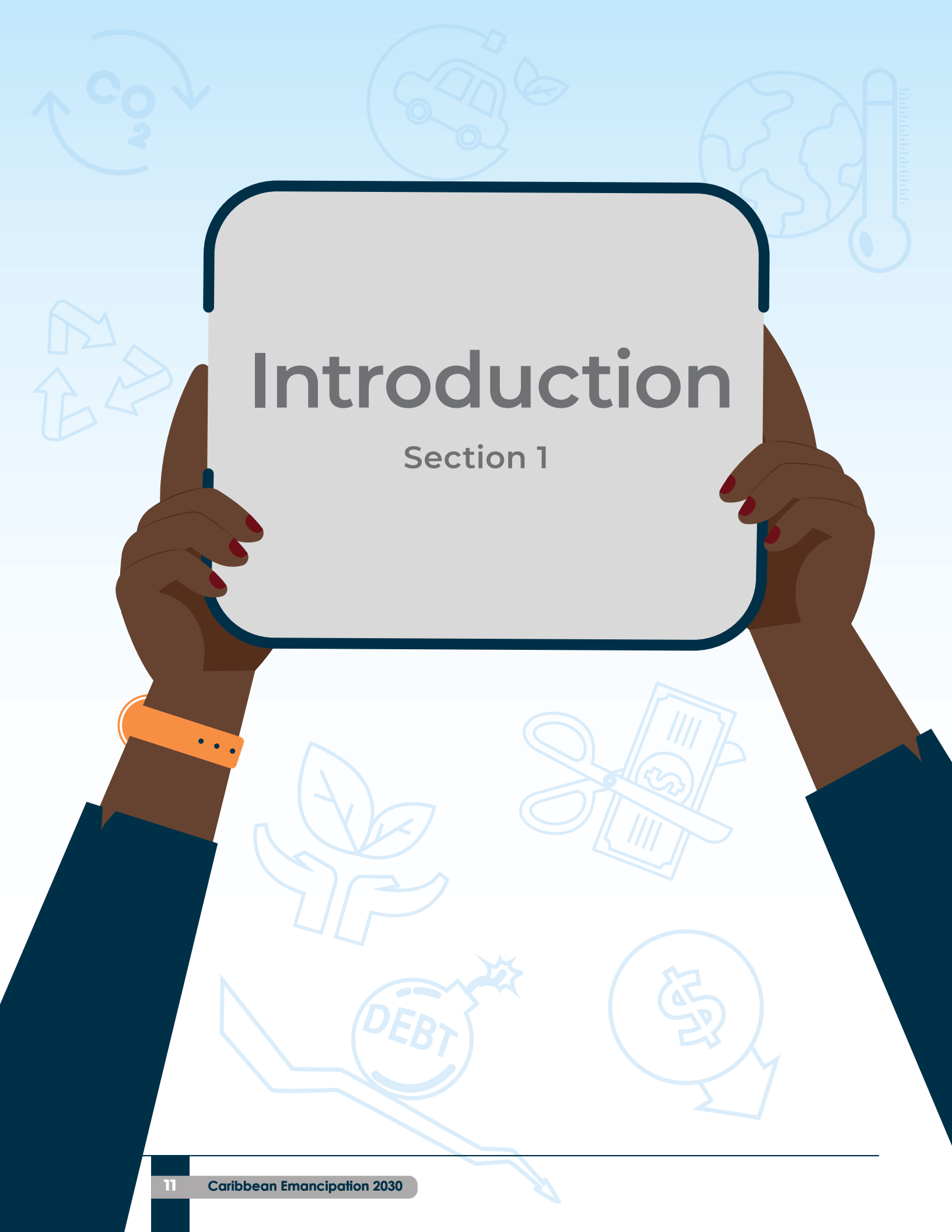
This study, therefore, proposes an ambitious and comprehensive sovereign debt and climate justice initiative called Caribbean Emancipation 2030, which seeks to remove the onerous debt overhang of Caribbean SIDS, frees up resources to boost climate resilience actions to start the transition to a net-zero economy, and supports post-pandemic economic recovery, growth and development in a sustainable way. The proposed Caribbean Emancipation 2030 has three pillars and aims at achieving maximum creditor and debtor participation.

PILLAR 1	PILLAR 2	PILLAR 3
UNDER PILLAR 1, multilateral and official creditors would grant comprehensive debt relief to eligible Caribbean SIDS with an unsustainable debt burden. Non-Paris Club creditors would be expected to provide debt relief on comparable terms with Paris Club creditors. The IMF would remain key to coordinating actions among creditors, especially the Paris Club. To safeguard the preferred creditor status of multilateral institutions, their losses would need to be financed by the IMF's Resilience and Sustainability Trust.	**UNDER PILLAR 2**, private creditors would grant debt relief through appropriate haircuts to the same group of eligible Caribbean SIDS. Private creditors participating in the debt restructuring would swap their old debt holdings for new "Green Resilience Bonds" with "hurricane clauses" to help mitigate natural disaster risk. Further, the IMF and the World Bank could give these Green Resilience Bonds credit enhancements which will help Caribbean SIDS to create a liquid secondary market for new tradeable green bond instruments and to have renewed access to international capital markets.	**UNDER PILLAR 3**, Caribbean SIDS that are not heavily indebted but have reduced fiscal space, could undertake a debt-for-climate swap. A debt-for-climate swap is an agreement between a debtor country and one or more creditors to restructure, reduce, or buy a portion of outstanding debt in exchange for a percentage of the proceeds (in local currency) to finance climate mitigation and adaptation efforts, usually by a third party.

In return for this substantial debt relief, Caribbean governments would need to commit to spending a significant portion of the reduced debt service burden on pursuing appropriate green resilience policies aligned to the 2030 Agenda for Sustainable Development and the Paris Agreement as well as to integrate Climate Disaster Risk Finance and Insurance (CDRFI) solutions and shock responsive or adaptive social protection (ASP) programs into their National Adaptation Plans and National Disaster Resilience Strategies.

The Caribbean Emancipation 2030 sovereign debt and climate justice initiative is designed with three objectives in mind. First, it allows participating Caribbean SIDS to negotiate substantial reductions in their overall levels of debt and debt service as a means to restore their solvency and to put an end to the Caribbean's 30-year old silent debt crisis. Second, the new Green Resilience Bonds can succeed in fostering a new wave of capital inflows to Caribbean SIDS, which can regain access to international capital markets for their financing needs. Finally, it encourages many Caribbean countries to adopt and pursue ambitious economic reform programs linking debt relief to climate resilience.

Now is an ideal opportunity for civil society organizations across the Caribbean to work collaboratively with international partner organizations to build a global campaign for debt relief and climate justice for Caribbean and other SIDS. The highly successful Jubilee 2000 debt campaign provides valuable lessons for crafting an advocacy strategy for Caribbean Emancipation 2030. Jubilee 2000 led ultimately to the cancellation of more than US$100 billion of debt owed by 35 of the poorest countries, and became one of the most effective international, non-governmental movements in history. Caribbean Emancipation 2030 can benefit from a campaign that has broad cultural appeal in key countries, credible messengers, an excellent inside political strategy, and a differentiated strategy for various national contexts. A successful Caribbean Emancipation 2030 advocacy campaign would result in the cancellation of up to US$20 billion of debt owed by Caribbean SIDS.


Introduction
Section 1
DEBT

Introduction

By mid-2022, developing countries are facing the perfect long storm of multiple crises, including the protracted COVID-19 pandemic, deepening extreme climate events, and Russia's unprovoked invasion of Ukraine, which is devastating lives, dragging down global growth prospects, and pushing up food and energy prices to record levels. Tightening financial conditions are putting pressure on highly indebted countries even as they are re-evaluating global supply chains amid persistent disruptions. These global stress episodes highlight the importance of crisis preparedness and resilience building. At the same time, greater international responsibility and cooperation would go a long way in helping developing countries to better respond to these multiple crises.

Against this turbulent global backdrop, small island developing states (SIDS) across the Caribbean are struggling with two inter-linked crises – sovereign debt and climate change. Their small size, highly open economies and limited production platforms worsen their heavy indebtedness and their risk to climate change events. Many Caribbean SIDS either have public debt burdens indicating solvency challenges or they show signs of heightened debt vulnerabilities. Even though Caribbean nations are responsible for less than 1 percent of global greenhouse gas (GHG) emissions, they are already severely affected by climate change which is not an event in some distant future for them. Hurricanes have become more frequent and intense in the Caribbean. The tourism-dependent region is already experiencing hotter, drier weather overall, flooding, rising sea levels and coral bleaching. Unfortunately, these heavily-indebted Caribbean SIDS have not been able to generate sufficient financing to fund their climate resilience programs, the costs of which are beyond their already strained fiscal capacities.

Accordingly, this Caribbean Policy Development Centre (CPDC) study seeks to strengthen the knowledge base on the debt crisis in Caribbean SIDS and the importance of climate and disaster risk finance and insurance to combatting climate vulnerabilities and external shocks. The rest of this study is structured as follows:

- **SECTION 2** briefly discusses the development characteristics of Caribbean SIDS, which face a unique set of challenges due to their social, economic and environmental circumstances.

- **SECTION 3** provides a description of the gravity of the silent debt crisis in the Caribbean. It explains why public debt in Caribbean SIDS has been more persistent than in other SIDS, highlights the changing structure of debt, presents some characteristics related to sovereign debt restructuring in the region and concludes with projections of future debt sustainability in six of the highest indebted Caribbean SIDS.

- **SECTION 4** links climate change to natural disasters in the Caribbean, particularly more frequent and intense hurricanes and their devastating impacts, which contribute to the debt build-up in Caribbean SIDS.

- **SECTION 5** discusses sovereign credit ratings in the Caribbean and uses the model put forward by Beirne and Volz (2020) to quantify the effect of climate risk vulnerability on the cost of sovereign borrowing for Caribbean SIDS. It also provides three scenarios on how the cost of debt associated with climate risk might develop in the Caribbean over the next decade.

- **SECTION 6** examines potential Climate Disaster Risk Finance and Insurance (CDRFI) solutions in Caribbean SIDS, using Dominica as a case study to show why the country should consider expanding its menu of CDRFI options to include a catastrophe bond since parametric insurance from CCRIF is insufficient to cover the damages from extreme climate-related events. It also explains why Caribbean SIDS should use the CDRFI approach to help establish shock responsive or adaptive social protection (ASP) programs so that assistance can reach affected communities and households as soon as possible after a natural disaster.

- **SECTION 7** undertakes an economic assessment of the impact of climate-related natural hazards on three Caribbean SIDS - Antigua & Barbuda, Barbados and Grenada - highlighting the impact of Hurricane Ivan on macroeconomic outcomes in Grenada and how the government of Grenada is using CDRFI solutions to secure natural disaster risk financing through risk layering.

- **SECTION 8** uses Grenada as a case study to show how a debt for climate swap can benefit this heavily indebted Caribbean SIDS at the forefront of climate adaptation efforts. Debt-for-climate swaps have emerged as a popular mechanism for green debt relief in recent proposals put forward to tackle the twin issues of debt sustainability and climate action.

- **SECTION 9** evaluates whether a key innovation in the international financial architecture - the IMF's recently approved Resilience and Sustainability Trust (RST) - could especially benefit vulnerable middle-income countries such as Caribbean SIDS in the fight against climate change.

- **SECTION 10** examines some global policy frameworks which could help Caribbean SIDS anchor long-term debt sustainability and climate-related natural disasters. It focuses on two relatively 'successful' sovereign debt restructuring initiatives - the Brady Plan and the enhanced HIPC Initiative - as well as on the IMF's Disaster Resilience Strategy (DRS). It also highlights two recent G20 debt initiatives – the Debt Service Suspension Initiative (DSSI) and the Common Framework for Debt Treatments.

- **SECTION 11** outlines the broad elements of Caribbean Emancipation 2030, an ambitious and comprehensive debt and climate justice initiative which seeks to remove the onerous debt overhang of Caribbean SIDS, frees up resources to boost climate resilience actions towards a net zero carbon economy, and supports post-pandemic economic recovery, growth and development in a sustainable way.

- **SECTION 12** concludes with the broad design of a summary advocacy framework for Caribbean Emancipation 2030, using the fundamental principles of the Jubilee 2000 debt campaign. It also provides a draft advocacy statement (narrative) which sets out the Caribbean SIDS-specific case for linking sovereign debt relief to climate actions. CPDC and its international partners can use the advocacy framework and statement to inform their campaign strategy.

*Small island developing states (SIDS) across the Caribbean are struggling with two inter-linked crises – **sovereign debt and climate change**.*


DEVELOPMENT CHARACTERISTICS OF CARIBBEAN SIDS
Section 2
DEBT

Development Characteristics of Caribbean Sids

Small Island Developing States (SIDS) is a political term used to identify those countries that are considered to face specific and increasing challenges due to their geographic characteristics, remoteness, small landmass, small populations, small size of economy, high exposure to external environmental and economic shocks, and due to the climate crisis (World Bank 2016). **The United Nations Department of Economic and Social Affairs (UNDESA) officially recognizes 38 SIDS, geographically broken down into three regions:**

- **The Caribbean (16 countries)**
- **The Pacific (13 countries)**
- **The Atlantic, Indian Ocean, Mediterranean and South China Sea (AIMS) (9 countries)**

The development challenges of the 14 Caribbean SIDS covered in this study is apparent from their key demographic and economic characteristics, as shown in **Table 1.** First, small population size is a defining characteristic to consider when discussing their sovereign debt and climate change challenges. Eleven of the 14 Caribbean SIDS have populations of fewer than one million inhabitants, while the six micro-states of the Eastern Caribbean[2] have populations of less than 200,000 people. Small populations mean that domestic markets are small and state technical capacity is constrained, thus limiting economies of scale. This leads to high transaction, transportation and service delivery costs. Small but highly concentrated populations especially around the coastal areas make these countries highly susceptible to damage caused by natural disasters.

Second, Caribbean SIDS have narrow production and export platforms that depend on just a few sectors or products and they are grouped either as commodity exporters or service-based economies. The commodity exporters - Belize, Guyana, Suriname, and Trinidad and Tobago - produce oil/natural gas, minerals (bauxite and gold), and agricultural goods. Service-based economies, including the Bahamas, Barbados, and the Eastern Caribbean territories are heavily dependent on tourism and, in some cases, international business services. This narrow production base combined with a high openness to international trade make Caribbean SIDS particularly vulnerable to external shocks over which they have no direct control such as increases in world interest rates, hikes in international oil prices or a slowdown in global growth.

*Small but highly concentrated populations especially around the coastal areas make these countries highly susceptible to damage caused by **natural disasters**.*

2 Six Caribbean SIDS comprise the micro-states of the Eastern Caribbean: Antigua & Barbuda, Dominica, Grenada, St. Kitts & Nevis, St. Lucia, St. Vincent & the Grenadines.

TABLE 1: CARIBBEAN SIDS: SELECTED ECONOMIC CHARACTERISTICS, 2020

COUNTRIES								
COUNTRY	GEOGRAPHY	GDP (US$ BN)	POPULATION (MILLIONS)	GDP PER CAPITA (US$)	INCOME CLASSIFICATION	MAIN EXPORTS	CURRENT ACCOUNT BALANCE (% OF GDP)	ENVIRONMENTAL VULNERABILITY
Antigua & Barbuda	Island	1.4	0.098	13,967	High	Tourism	-7.9	Vulnerable
The Bahamas	Island	9.9	0.385	25,734	High	Tourism	-18.0	At Risk
Barbados	Island	4.4	0.288	15,346	High	Tourism	-7.3	Extremely Vulnerable
Belize	Mainland	1.7	0.419	4,077	Lower middle	Agri & Fisheries	-7.5	At Risk
Dominica	Island	0.5	0.073	7,416	Upper middle	Tourism	-24.5	Highly Vulnerable
Grenada	Island	1.0	0.113	9,130	Upper middle	Tourism	-22.2	Extremely Vulnerable
Guyana	Mainland	5.5	0.787	6,953	Upper middle	Oil, Agri & Bauxite	-14.5	Resilient
Haiti	Mainland	7.9	11.743	1,235	Lower middle	Agriculture	3.4	Highly Vulnerable
Jamaica	Island	13.9	2.737	5,102	Upper middle	Tourism	-0.1	Extremely Vulnerable
St. Kitts & Nevis	Island	1.0	0.057	17,173	High	Tourism	-14.5	Highly Vulnerable
St. Lucia	Island	1.6	0.181	8,935	Upper middle	Tourism	-13.2	Extremely Vulnerable
St. Vincent	Island	0.8	0.111	7,304	Upper middle	Tourism	-15.9	Highly Vulnerable
Suriname	Mainland	2.8	0.603	4,787	Upper middle	Bauxite, Oil & Gold	8.9	Resilient
Trinidad & Tobago	Island	21.6	1.399	15,425	High	Oil & Natural Gas	0.0	Extremely Vulnerable

Source: *IMF World Economic Outlook database October 2021 edition; World Bank World Development Indicators Database; and United Nations Environmental Programme (UNEP)*

A third characteristic relates to income levels of countries in the Caribbean region. According to the World Bank's latest income classification, which is based on Gross National Income (GNI) per capita for 2020, most Caribbean SIDS belong to the upper-middle income group, with GNI per capita levels above US$4,096. The exceptions are Haiti which moved up from being a low-income country to a lower-middle income country and Belize which moved down from the upper-middle-income group to the lower-middle group. As a result of graduating to this middle-income classification, most Caribbean SIDS are not eligible to receive grants or other concessional resources such as Official Development Assistance (ODA) from the advanced economies. For this same reason, many Caribbean SIDS are considered not poor enough to participate in international debt relief programs such as the enhanced Heavily Indebted Poor Countries (HIPC) Initiative, the G20 Debt Service Suspension Initiative (DSSI) and the G20 Common Framework for Debt Treatment Beyond the DSSI. The enhanced HIPC Initiative was designed for low-income countries, mainly in Africa, to permanently exit the process of repeated debt rescheduling. Guyana and Haiti were the only two Caribbean SIDS that were part of the HIPC arrangement. Both the more recent DSSI and G20 Common Framework programs allowed only low-income countries to temporarily suspend their debt payments to official bilateral creditors and to facilitate negotiations over debt restructuring in the face of the COVID-19 pandemic. Four Caribbean SIDS - Dominica, Grenada, St. Lucia and St. Vincent - were invited to participate in the DSSI program; only Dominica and Grenada were able to temporarily suspend a mere US$1.4 million each in bilateral debt payments in 2020.

Fourth, economic growth has stagnated in Caribbean SIDS over the past three decades, accompanied by a rising incidence of poverty and income inequality. Real GDP growth in the Caribbean region averaged almost 1.5 percent per year between 2010 and 2020. This represents a significant slowdown from historical growth trends, where average regional growth reached just over 3.5 percent in the 1980s, 3.0 percent in the 1990s and 2.8 percent in the 2000s. The weakening economic performance reflects the heavy dependence on cyclical and volatile sectors such as commodities, tourism and financial services which have been affected by multiple external shocks. Against the backdrop of stagnant growth, average poverty levels (based on national surveys) are high. In the Eastern Caribbean, official poverty rates vary from 18 percent to 38 percent, using each country's poverty line (World Bank 2014). Income inequality is significant.

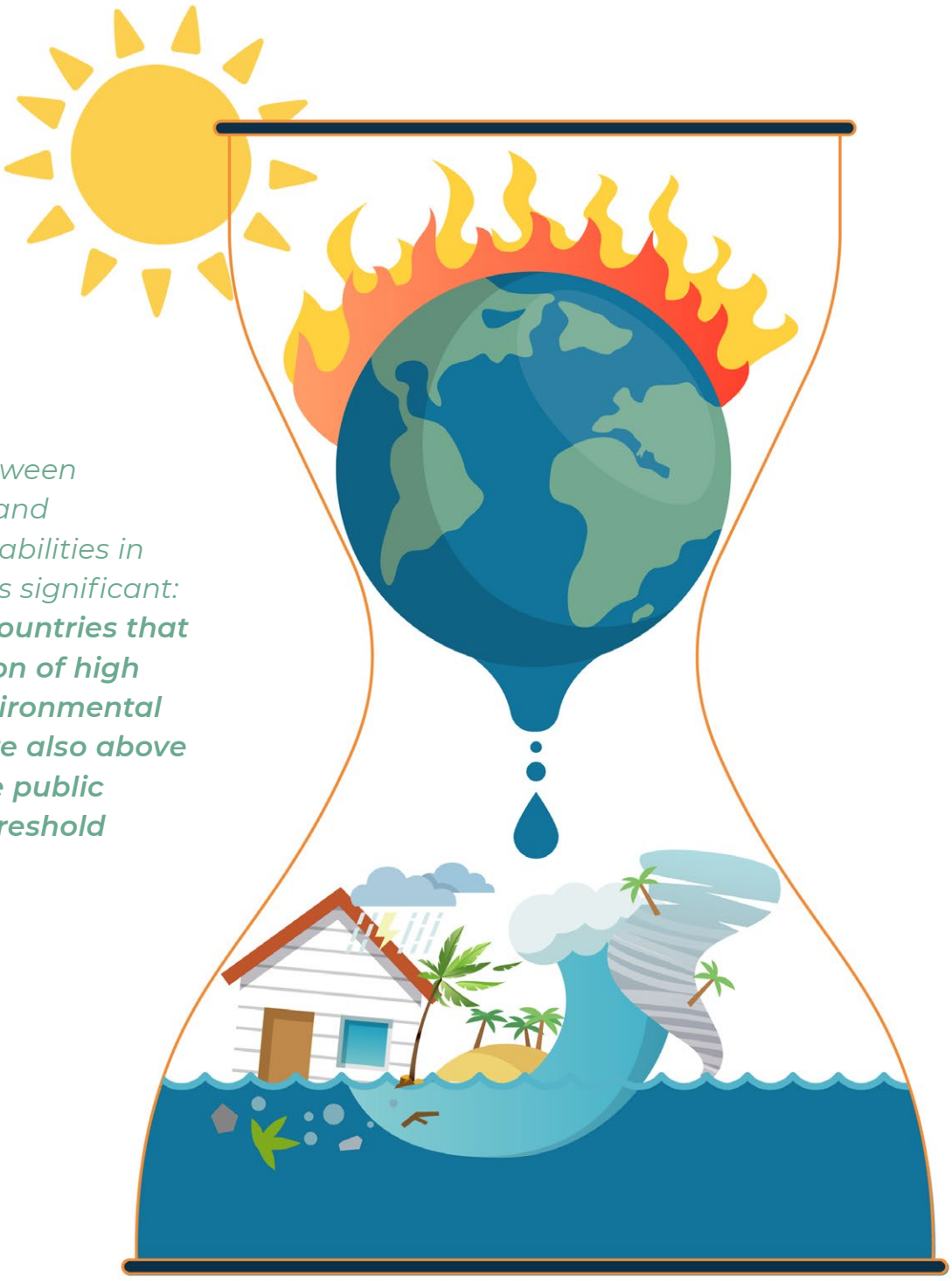
Fifth, slower economic growth reflects more generally unsustainable external positions. On average, the external current account of the Caribbean region deteriorated to just under 9 percent of GDP between 2010 and 2020. Persistent current account deficits translate into increased external financing needs, most of which is filled by recourse to external debt. Regional competitiveness has also eroded, underlying the deterioration in the external position. Most Caribbean countries rank poorly on the World Economic Forum's Global Competitiveness Index, with Barbados the best ranked country at 77nd position and Haiti the worst ranked country at 138th position out of 141 countries in 2019. Extensive emigration in recent decades has created a large, highly-educated Caribbean diaspora and has made remittances, the monies that the diaspora send back home, the fastest growing and most stable source of capital inflows to the Caribbean region in the last two decades. In 2020, remittance inflows to the Caribbean amounted to close to US$7.5 billion, far greater than aid from traditional bilateral donors such as the United States, the United Kingdom and Canada as well as foreign direct investment (FDI) from multinational corporations.

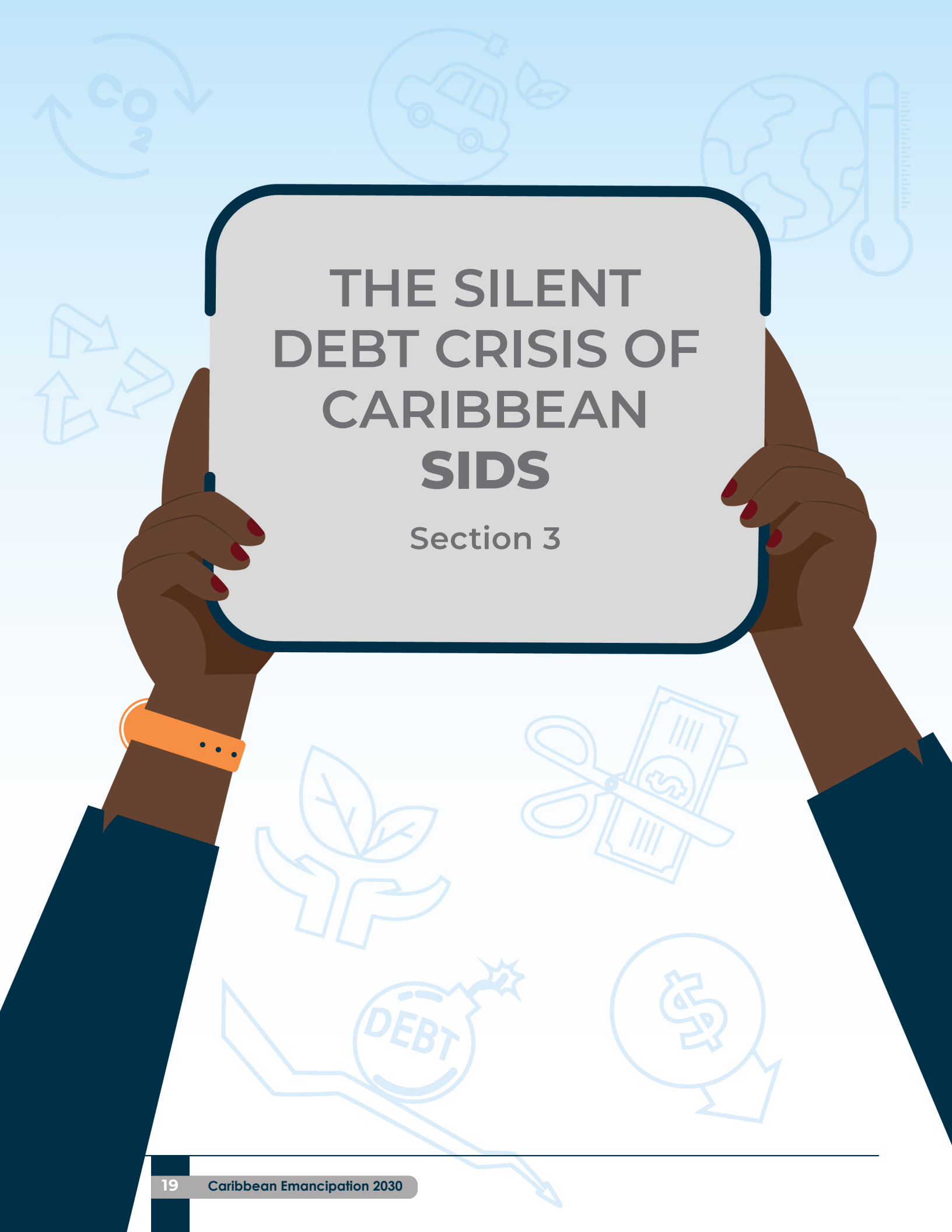
Sixth, most of the countries in the Caribbean region face high and rising debt to GDP ratios that jeopardize their prospects for medium-term debt sustainability and growth. In 2020, six Caribbean SIDS had public debt in excess of 100 percent of GDP and another six countries had debt between 59 percent to 99 percent of GDP. Unsustainable debt diverts vital resources towards debt servicing, rather than social spending, especially on pro-poor programs. Interest payments in the most highly indebted Caribbean SIDS consume between 10 percent to 25 percent of total revenues. Part of the Caribbean's debt build-up can be traced to successive years of fiscal slippages where governments did not earn sufficient tax revenue to cover primary expenditure, additional borrowing to service existing debt, public enterprise borrowing and off-balance-sheet spending, including for financial sector bailouts (CDB 2013). Most of the pressure on the region's public debt, however, can be linked to climate change and natural disasters.

Finally, Caribbean SIDS are particularly susceptible to the impacts of climate change, especially the ongoing rise in sea levels, changes in rain patterns and temperatures, and increasing intensity of hurricanes. This susceptibility is driven by several factors including the proximity of dense populations to flood prone coastal zones, the location of many islands within the path traversed by tropical storms and hurricanes, and the heavy dependence on sectors vulnerable to physical risk (tourism and agriculture) and transition risk (oil and natural gas). Limited financial resources and weak institutional capacity tend to constrain the capacities of Caribbean SIDS to adapt to climate change. A lack of CDRFI solutions worsens their climate resilience. The Environmental Vulnerability Index (EVI), which is developed jointly by the South Pacific Applied Geoscience Commission (SOPAC)

and UN Environment Programme (UNEP), ranks countries in five categories ranging from "Resilient" to "Extreme Vulnerability". Based on this assessment, at least nine countries in the Caribbean region are considered highly or extremely environmentally vulnerable. For the group of highly vulnerable countries, which includes Dominica, Haiti, St. Kitts and Nevis and St. Vincent and the Grenadines, public debt levels range from 47 percent to 109 percent of GDP. For the group of extremely vulnerable countries, which includes Barbados, Grenada, Jamaica, St. Lucia and Trinidad and Tobago, debt levels range from 71 percent to 157 percent of GDP. The overlap between environmental and financial vulnerabilities in the Caribbean is significant: 7 out of the 9 countries that are in a situation of high or extreme environmental vulnerability are also above the sustainable public debt to GDP threshold of 60 percent.

The overlap between environmental and financial vulnerabilities in the Caribbean is significant: ***7 out of the 9 countries that are in a situation of high or extreme environmental vulnerability are also above the sustainable public debt to GDP threshold of 60 percent.***

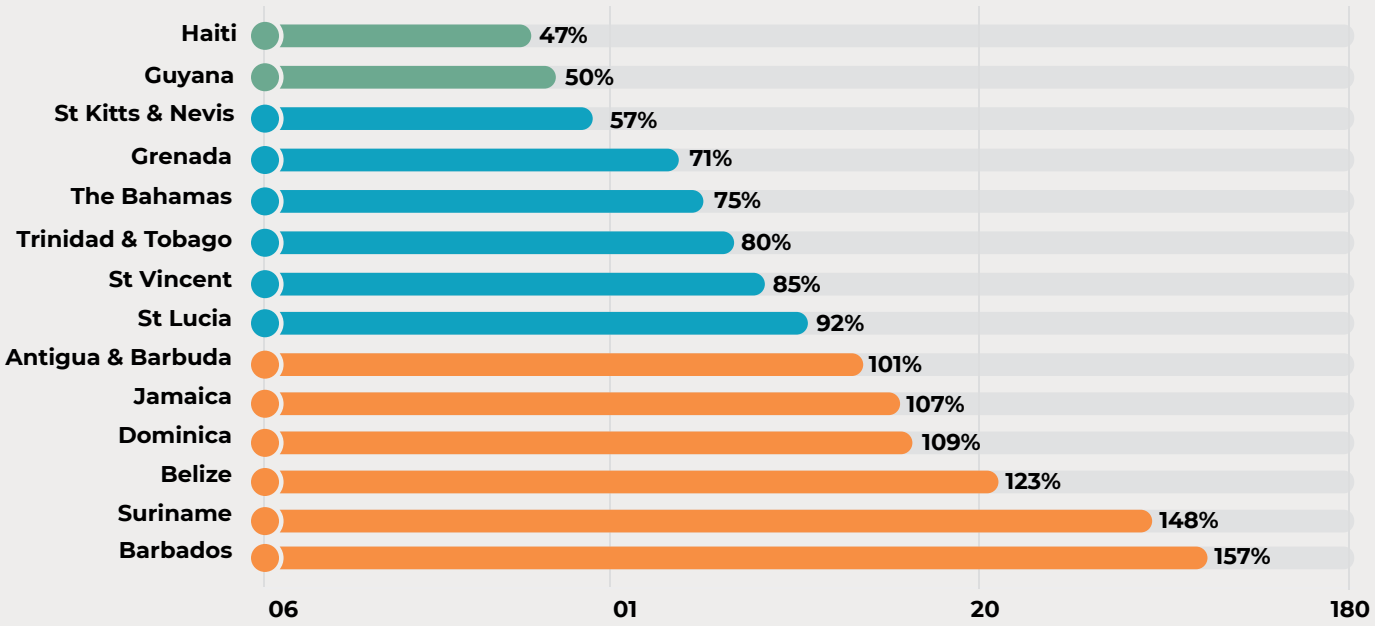



THE SILENT
DEBT CRISIS OF
CARIBBEAN
SIDS
Section 3
DEBT

The Silent Debt Crisis of Caribbean Sids

Caribbean SIDS have been gripped by a silent debt crisis over the past three decades, experiencing stagnant growth and rising public debt levels which have placed them among the most heavily indebted SIDS in the world. In general, public debt-to-GDP ratios over 60 percent are considered high and detrimental to economic growth (Greenidge et al. 2012; Sahay 2005). By that measure, at the end of 2020, only two Caribbean SIDS – Guyana and Haiti – had moderate levels of public debt at less than 59 percent of GDP (see **Figure 2**). Six other Caribbean SIDS - St. Lucia, Trinidad and Tobago, St. Vincent and the Grenadines, the Bahamas, Grenada, and St. Kitts and Nevis - had public debt in the range of 60 to 99 percent of GDP. This suggests signs of heightened debt vulnerabilities. The remaining six Caribbean SIDS - Barbados, Suriname, Belize, Dominica, Jamaica and Antigua & Barbuda - had public debt greater than 100 percent of GDP, indicating solvency challenges.

FIGURE 2: CARIBBEAN SIDS: GROSS PUBLIC DEBT, 2020 (% OF GDP)



Source: *IMF World Economic Outlook Database*

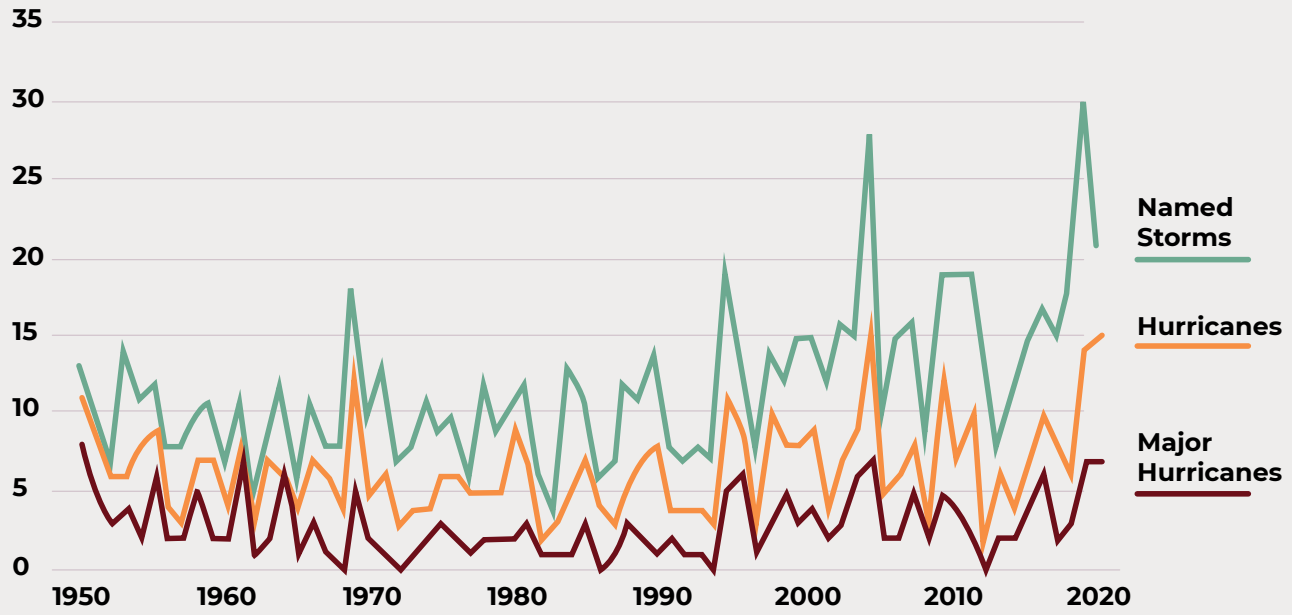
As public debt expanded, so did debt servicing costs in several Caribbean countries. International benchmarks suggest that debt service payments should not exceed 15 percent of government revenue (CDB 2013). This benchmark is important since high debt servicing forces governments to forego critical social spending on health and education as well as to reduce public investment in economic infrastructure, which, in turn, can compromise their prospects for sustainable growth. Many Caribbean SIDS are breaching this international benchmark. Interest payments on the existing debt stock in the six most highly indebted Caribbean SIDS currently consume between 10 percent to 25 percent of total revenues. Even the primary fiscal balance, which excludes interest payments, has deteriorated in almost every Caribbean SIDS. This has resulted in further debt accumulation because budgetary resources have not been sufficient to meet interest costs and cover recurrent expenditure.

The build-up of debt in the Caribbean region was not sudden. It happened gradually and almost unnoticeably over a few decades. In many respects, it is a silent debt crisis. Since all SIDS share similar sustainable development challenges and are susceptible to similar vulnerabilities, why has the debt overhang in Caribbean SIDS become more stubborn and persistent compared to SIDS elsewhere? Several reasons help explain the gradual buildup of Caribbean debt, although their cumulative impact on the pace of driving up debt may have been overlooked.

First, in comparison with other SIDS, Caribbean countries have been disproportionately affected by more frequent and intense

natural disasters[3] (mainly hurricanes), forcing governments to borrow to fund response, recovery and reconstruction efforts. **Figure 3** shows tropical storm activity in the North Atlantic Basin during 1950-2021. Over this 70-year period, there were 854 named storms (tropical storms, hurricanes and sub-tropical storms) in the wider Caribbean region. Of this total, 470 tropical storms became hurricanes and 205 hurricanes further intensified to become major hurricanes, defined as Category 3 status or higher. Since around 1995, there appears to be an acceleration in the number of tropical storm activity in the North Atlantic basin, with half of the named storms occurring in the last 25 years, marked by a distinct increase in the number of intense hurricanes. According to the EM-DAT database which records disasters throughout the world,[4] the total damages experienced by Caribbean SIDS for the 89 hurricanes for which information is available amounted to over US$30 billion (in constant 2020 US$) over the past 70 years (**Table 2**). Almost half of the total damages or US$14 billion (in constant 2020 US$) were the result of the largest hurricane hitting a Caribbean country. Some of the largest hurricanes in each Caribbean country, particularly for the smaller islands, caused damages well above the size of the domestic economy, with Dominica in the top spot with 225 percent of GDP in damages after Hurricane Maria devastated the island in 2017 (see **Table 3** over page). In Grenada and St. Kitts and Nevis the damage was also equivalent to more than one year of economic activity,[5] after the passage of Hurricane Ivan and Hurricane Georges, respectively.

FIGURE 3: TROPICAL STORM ACTIVITY IN THE NORTH ATLANTIC BASIN, 1950-2021



Source: *National Oceanic and Atmospheric Administration (NOAA)*

3 The Caribbean is also at risk of other natural disasters such as earthquakes and volcanoes, which are unaffected by climate impacts. Haiti was hit by a devastating earthquake in January 2010, which caused unprecedented damages and losses estimated at 120 percent of 2009 GDP. Registering a magnitude of 7.0, the earthquake caused over 200,000 deaths, injured some 250,000 and made 1.5 million persons homeless (IMF 2010). After more than two decades, Montserrat is still recovering from the 1995 eruption of the Soufrière Hills volcano, which left the southern half of the island uninhabitable and distressed the economy (CDB 2013). Kick-'em-Jenny, a submarine volcano located some eight kilometers north of Grenada, is the most active volcano in the Eastern Caribbean, erupting at least 14 times since it was discovered in 1939. The most recent eruption of Kick-'em-Jenny occurred in April 2017. The explosive eruption of the La Soufrière volcano in early April 2021 hit St. Vincent and the Grenadines hard, worsening the fallout from the COVID-19 global pandemic and creating an urgent balance of payments need and a humanitarian crisis (IMF 2021).

4 The EM-DAT database records disasters throughout the world; for a disaster to be included in the database at least one of the following criteria must be met: i) ten or more people reported killed, ii) hundred or more people reported affected, or iii) there was a declaration of a state of emergency, or a call for international assistance was made. EM-DAT has two main limitations; the data on damages is not exhaustively recorded for each disaster, and the information on disaster magnitude is absent for most tropical storms and it is not clear how, when or where the wind speeds were measured (Acevedo 2016).

5 The impact of a natural disaster is felt mostly in the destruction of the capital stock, that is, damages to houses, agricultural crops, roads, buildings etc. Since the capital stock of a country in monetary terms is usually larger than the total production of a country in any given year, it is possible to have hurricanes that destroy more than 100 percent of a country's GDP.

TABLE 2: CARIBBEAN SIDS: NUMBER OF HURRICANES, DEATHS, PERSONS INJURED, PERSONS AFFECTED AND TOTAL DAMAGES PER DECADE, 1950-2021

DECADE	# OF HURRICANES	# OF DEATHS	# OF PERSONS INJURED	# OF PERSONS AFFECTED	TOTAL DAMAGES	AVERAGE DAMAGES
					(2020 CONSTANT US$ MN)	
1950s	5	761	200	270,200	645,140	129,028
1960s	10	5,915	884	149,084	4,046,921	404,692
1970s	5	61	2,110	201,720	251,464	50,293
1980s	8	350	24	3,004,294	4,977,279	622,160
1990s	15	1,373	238	1,695,169	3,828,387	255,226
2000s	26	3,786	3,493	1,355,346	6,933,356	266,668
2010s	16	1,184	636	3,067,909	9,690,382	605,649
2020-2021	4	40	3	107,607	34,000	8,500
TOTAL	89	13,470	7,588	9,851,329	30,406,929	341,651

Source: *Calculated using data from Emergency Events Database (EM-DAT)*

TABLE 3: CARIBBEAN SIDS: NUMBER OF HURRICANES, DEATHS, PERSONS INJURED, PERSONS AFFECTED AND TOTAL DAMAGES PER DECADE, 1950-2021

COUNTRY	# OF HURRICANES	TOTAL DAMAGES	HURRICANE WITH LARGEST DAMAGES				
			HURRICANE	YEAR	CATEGORY	DAMAGES	% OF GDP
The Bahamas	20	**$8,481,244**	Dorian	2019	5	**$3,603,638**	**25**
Haiti	36	**$6,463,233**	Matthew	2016	4	**$2,258,013**	**20**
Jamaica	23	**$5,254,125**	Gilbert	1988	3	**$2,291,337**	**50**
Dominica	12	**$2,773,055**	Maria	2017	5	**$1,609,548**	**225**
Antigua & Barbuda	12	**$2,304,093**	Donna	1960	4	**$1,037,362**	**n.a.**
Belize	13	**$1,480,081**	Hattie	1961	4	**$543,904**	**n.a.**
Grenada	6	**$1,301,722**	Ivan	2004	4	**$1,275,348**	**200**
St. Kitts & Nevis	9	**$1,205,233**	Georges	1998	4	**$664,922**	**122**
St. Lucia	15	**$441,201**	Allen	1980	3	**$289,323**	**51**
Trinidad & Tobago	5	**$294,459**	Flora	1963	3	**$265,440**	**5**
Barbados	9	**$250,883**	Emily	1987	3	**$238,477**	**6**
St. Vincent	11	**$157,600**	Allen	1980	4	**$53,597**	**20**
TOTAL/AVERAGE		**$30,406,929**				**$14,130,909**	**72**

Source: *Calculated using data from Emergency Events Database (EM-DAT)*

Note: *Nominal GDP data not available in 1960 and 1961*

Second, and again in comparison with other SIDS, the Caribbean has been hit disproportionately hard by multiple external shocks over which they had no control and with significant adverse effects on their trade, fiscal and debt balances.

These multiple shocks included:

- **EUROPE'S PHASING OUT OF ITS PREFERENTIAL TRADE AGREEMENTS FOR SUGAR AND BANANAS WITH THE CARIBBEAN FROM 1996.**
  SIDS in the Eastern Caribbean were particularly hard hit and suffered significantly weakened external positions. The erosion of trade preferences alone is estimated to have caused St. Kitts & Nevis annual fiscal losses equivalent to 3-4 percent of GDP (Sahay 2005). For Guyana, cumulative output losses of 6.5 percent were estimated with the dismantling of sugar trade preferences (CDB 2013). The output losses and the associated reductions in fiscal revenues as well as the worsening external current account positions all contributed to increased financing needs of affected Caribbean SIDS.

- **THE TERRORIST ATTACKS IN NEW YORK AND WASHINGTON D.C. ON SEPTEMBER 11, 2001.**
  Caribbean SIDS, which rely heavily on tourism, suffered tremendously in the wake of the 9/11 terrorist attacks. The sharp drop in the number of tourists and associated export earnings led to substantial reductions in government revenues. Falling demand for tourist-related services caused large tourism-related construction projections to be stalled. Dwindling levels of economic activity were accompanied by a significant upturn in debt levels in four of the six tourism-intensive Eastern Caribbean countries.

- **THE 2008 GLOBAL FINANCIAL CRISIS ADVERSELY AFFECTED CARIBBEAN ECONOMIES.**
  The spillovers from the Caribbean's main trading partners, particularly the US and Europe, which were at the center of the global financial crisis, led to marked declines in tourism receipts and other exports income and a corresponding decline in economic activity. Remittances also fell significantly severely affecting countries such as Guyana, Haiti and Jamaica in which remittances exceed 15 percent of GDP. Many governments implemented counter-cyclical fiscal measures to offset deteriorating economic conditions and increasingly relied on debt to fund their budgets.

- **SHARP INCREASES IN WORLD OIL PRICES AND THE COST OF FOOD IN 2008.**
  By mid-September 2008, oil prices stood at about US$100 per barrel, double the levels recorded at the end of 2006. Similarly, supply shocks had pushed food prices to 44 percent above their end-2006 levels. With the exception of Trinidad & Tobago at that time, other Caribbean SIDS are net oil importers and the surge in international oil prices lead to a pronounced widening of their current account deficits. Increases in food prices also had a severe impact on current account positions, especially for net food importers such as Haiti, Grenada and Jamaica.

- **THE ONSET SINCE 2020 OF THE COVID-19 GLOBAL PANDEMIC.**
  Since 2020, the COVID-19 pandemic has been severely affecting lives and livelihoods across the Caribbean region, marked by cycles of lockdowns and containment measures. The emergence of new and more virulent strains of COVID-19 increased uncertainty regarding the time horizon for normalization. The unprecedented shocks to key sectors such as tourism resulted in some of the largest single-year declines in growth ever recorded for the Caribbean region in 2020 and worsened an already precarious debt situation.

Third, in contrast to the experience of SIDS in the Pacific region, Caribbean SIDS have experienced a dwindling in traditional official development assistance (ODA) flows since the 1990s, with Western donor countries instead redirecting their assistance increasingly to low-income and post-conflict countries (CDB 2013). Relative shifts in concessional funding among SID regions have been stark. For example, the share of concessional debt in total external debt among six Caribbean countries declined from 34 percent in 1990, to 15 percent by 2013. In contrast, the share of concessional debt in total external debt among four Pacific SIDS increased in the same period, from 75 percent to no less than 80 percent. Concessional funding carries lower interest rates and longer periods of amortization which help countries to carry higher levels of debt. The reduction in concessional funding has had a direct consequence for Caribbean SIDS, driving up their debt servicing costs as these countries turned to alternate, largely private sources of debt, which is more expensive and of a shorter duration. Caribbean countries which received favorable credit ratings by the international rating agencies in the 2000's, such as Belize and Barbados, experienced a rapid increase in the share of their debt owed to private creditors.

Changing Face of Debt in The Caribbean

Many Caribbean SIDS have found the structure of their external debt changing significantly over the last three decades.

The main drivers of this change are as follows:

- Traditional Western donors such as the United Kingdom, the United States and Canada began in the 1990s to redirect their concessional ODA or aid flows away from the Caribbean and towards low-income or post-conflict countries. This shift led to a reduction in official financing from the Paris Club group[6] of industrialised creditor countries. It also coincided with the graduation of Caribbean SIDS to middle-income country status, thereby making them ineligible for concessional financing from the IMF, World Bank and other multilateral financial institutions.

- Increasingly, bilateral lending from the People's Republic of China (China) began to replace concessional aid from Western governments. China's primary interest in the Caribbean has been economic in nature, but as it has deepened relationships in the region, Beijing has devoted increasing attention to promoting its political and security interests. Eight Caribbean SIDS have signed onto China's Belt and Road Initiative, a global infrastructure development strategy, and some Caribbean SIDS benefited from increased aid by switching diplomatic ties from Taiwan to China. Notably, despite the acute financial pressures experienced throughout the Caribbean in the

6 The Paris Club is a group of 22 creditor nations that strive to coordinate workable solutions to mounting debt problems among developing country debtor nations. The 22 permanent members of the group are Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Ireland, Israel, Italy, Japan, Korea, Netherlands, Norway, Russia, Spain, Sweden, Switzerland, the United Kingdom, and the United States. It was created in 1956 when the first negotiation between Argentina and its public creditors took place in Paris. Creditor countries usually meet ten times a year in Paris with debtor countries in order to agree with them on restructuring their debts.

wake of COVID-19, China did not extend any new loans to countries in the region in 2020.

- Venezuela has also made bilateral loans to several Caribbean SIDS on both concessional and non-concessional terms, mostly through the Petro Caribe arrangement, which supplies Venezuelan crude oil to neighbouring countries at preferential rates and allows beneficiaries to repay in local goods and services.

From the late 1990s, international rating agencies such as Standard and Poor's and Moody's assigned credit ratings to Caribbean SIDs while Trinidad and Tobago saw a deepening of its capital markets facilitated by an energy boom. Several Caribbean countries particularly Barbados and Belize used their new credit ratings to issue commercial bonds on the global and regional capital markets, relying heavily on this new but more expensive source of external borrowing.

- Other Caribbean SIDS, especially those in the Eastern Caribbean, with limited access to the international capital markets turned more to the IMF and regional multilateral development banks such as the World Bank, Inter-American Development Bank (IDB) and the Caribbean Development Bank (CDB) to help fund their external financing gaps. As emerging market spreads widened following the global financial crisis of 2007-2008, some Caribbean governments such as Dominica, Jamaica, St. Lucia and St. Vincent and the Grenadines turned to the IMF and other multilateral lending agencies for quick-disbursing, emergency financial assistance to support recovery and reconstruction efforts in the face of natural disasters.

As a result of these driving forces, Caribbean SIDS accumulated over US$30 billion in total external debt at the end of 2020, or about 40 percent of their combined GDP. **Table 4** provides a breakdown of external debt by type of creditor for the Caribbean region.

The breakdown shows the following:

- Caribbean SIDS owe private creditors almost US$14.5 billion, which accounts for 47 percent of their total external debt. Of this total, Eurobonds issued on the international capital markets comprise the larger volume of private debt, close to US$12.5 billion. Jamaica has issued the largest volume of bonds on the global capital markets at nearly US$5.5 billion followed by the Bahamas (US$2.5 billion), Trinidad and Tobago (US$2.2 billion), Suriname (US$0.675 billion), Belize (US$0.5 billion) and Barbados (US$0.5 billion). Private debt is generally contracted on market terms with higher interest rates and longer amortisation periods, which imposes a heavier debt service burden on Caribbean SIDS. In 2020, for example, the average interest rate on Eurobonds issued by Caribbean sovereigns was 7 percent while comparable 10-year US Treasury securities yielded less than 1 percent.

- Caribbean SIDS owe multilateral creditors more than US$10.5 billion, which represents 35 percent of their total external debt. Of this total, Caribbean SIDS owes some US$9.7 billion to the regional multilateral development banks, while the remaining US$1 billion is owed to the IMF. Jamaica has borrowed the most from the multilateral development banks (almost US$3 billion) followed by Trinidad and Tobago (just under US$2 billion) and Barbados (US$1 billion). Of the total debt owed to the IMF, Barbados is the largest borrower, owing US$0.4 million to the global lender of last resort.

TABLE 4: CARIBBEAN SIDS: CREDITOR COMPOSITION OF PUBLIC EXTERNAL DEBT
(2020, US$ MILLIONS)

COUNTRY	BILATERAL CREDITORS			MULTILATERAL CREDITORS			PRIVATE CREDITORS			OTHER CREDITORS	TOTAL
	PARIS CLUB	NON-PARIS CLUB	TOTAL BILATERAL DEBT	IMF	OTHER MULTILATERALS	TOTAL MULTILATERAL DEBT	BANKS	CAPITAL MARKETS	TOTAL PRIVATE DEBT		
Antigua & Barbuda	152	248	400	0	163	163	34	70	104	1	668
The Bahamas	0	72	72	256	667	923	1,009	2,473	3,482	307	4,784
Barbados	46	76	122	392	1,017	1,409	124	552	676	0	2,207
Belize	15	391	406	25	441	466	17	535	552	0	1,424
Dominica	50	3	53	21	186	207	8	53	61	0	321
Grenada	7	67	74	39	327	366	4	105	109	18	567
Guyana	74	389	463	0	825	825	17	4	21	12	1,321
Haiti	0	1,923	1,923	80	97	177	0	0	0	47	2,147
Jamaica	29	701	730	118	2,947	3,065	0	5,384	5,384	0	9,180
St. Kitts & Nevis	6	13	19	0	67	67	33	0	33	17	136
St. Lucia	0	67	67	30	294	324	0	330	330	0	721
St. Vincent	9	87	96	19	259	278	100	0	100	0	474
Suriname	35	397	432	21	645	666	246	675	921	67	2,086
Trinidad & Tobago	0	335	335	0	1,832	1,832	329	2,200	2,529	0	4,696
TOTAL	**423**	**4,769**	**5,192**	**1,001**	**9,767**	**10,768**	**1,921**	**12,382**	**14,302**	**469**	**30,732**

Source: *Antigua & Barbuda World Bank Debt Statistics; Quarterly Economic Review December 2020, Central Bank of the Bahamas; Barbados 2021 Article IV Consultation; June 2021 Quarterly Review, Central Bank of Belize; 2019 Debt Portfolio Review, Ministry of Finance, Dominica; Public Debt Report 2020, Ministry of Finance, Guyana; Haiti 2019 Article IV Consultation; Debt Management Unit, Ministry of Finance, Jamaica; Quarterly Debt Bulletin June 2020, Ministry of Finance, Government of St. Kitts & Nevis; Statistical Debt Bulletin June 2020, Ministry of Finance, Government of St. Lucia; St. Vincent & the Grenadines 2021 Article IV Consultation; Suriname 2021 Article IV Consultation; and Handbook of Key Economic Statistics 2020, Central Bank of Trinidad & Tobago.*

- Caribbean SIDS owe bilateral creditors just over US$5 billion, which accounts for less than one-fifth of their total external debt. Of this total, Caribbean SIDS owe more than US$4.5 billion or almost 92 percent of their total bilateral debt to non-Paris Club creditors, especially China, Taiwan, Kuwait, Trinidad and Tobago, and Venezuela. Traditional Western lenders who are members of the Paris Club now hold less than US$0.5 billion or around 8 percent of the bilateral debt of Caribbean SIDS.

- Based on available data, six Caribbean SIDS collectively owe China over US$1.7 billion[7] or more than one-third of the

7 Determining the exact size of the Caribbean's debt to China is complicated, because China does not release reliable figures about its commercial bank or governmental lending to other countries from official sources, and it is not possible to create a comprehensive estimate based on reporting from

entire non-Paris Club debt of the Caribbean region. This makes China the single largest non-Paris Club creditor and most important bilateral lending partner in the Caribbean (see **Table 5**). Of this amount, Jamaica owes nearly US$600 million to Beijing, followed by Suriname (US$400 million) and Trinidad and Tobago (US$335 million). The data suggest that China is the only non-Paris Club creditor for both Trinidad and Tobago and Barbados, and the single largest non-Paris Club creditor for both the Bahamas and Jamaica.

TABLE 5: CARIBBEAN SIDS: DEBT OWED TO CHINA /1

COUNTRY	DEBT OWED TO CHINA (US$ MN)	% OF NON-PARIS CLUB DEBT	% OF BILATERAL DEBT	% OF EXTERNAL DEBT	% OF TOTAL PUBLIC DEBT
Jamaica	595	85	82	6	4
Suriname	397	63	62	13	11
Trinidad & Tobago	335	100	100	7	2
Guyana	246	63	53	19	9
Barbados	76	100	62	3	1
The Bahamas	66	92	92	1	1

Note: */1 May include other contingent liabilities not included in publicly guaranteed debt, but this data is not readily available.*
Sources: *Quarterly Economic Review December 2020, Central Bank of the Bahamas; Barbados 2021 Article IV Consultation; Public Debt Report 2020, Ministry of Finance, Guyana; Debt Management Unit, Ministry of Finance, Jamaica; Debt Restructuring: Suriname 2021 Article IV Consultation; and Handbook of Key Economic Statistics 2020, Central Bank of Trinidad & Tobago.*

High domestic debt is also a source of concern in some Caribbean SIDS. By the end of 2020, the domestic debt of Caribbean SIDS stood at US$32 billion. Domestic debt accounts for over three-quarters of the public debt burden of St. Kitts and Nevis and just under 75 percent of total debt in Trinidad and Tobago. In Barbados, domestic debt has increased sharply, reaching close to 70 percent of total debt by the end of 2020. In both Antigua & Barbuda and St. Lucia, more than half of the debt stock is held by domestic creditors. Only in Jamaica, has domestic debt come down sharply, from over half of total debt in early 2010s to under 40 percent by 2020, partly due to its domestic debt restructuring programs. For most Caribbean SIDS, domestic debt usually takes the form of bonds issued on domestic capital markets and which are taken up by local commercial banks and other financial institutions such as national social security schemes. The exceptions to this pattern are Antigua & Barbuda, Suriname and Haiti, where loans from domestic banks represent the most important source of domestic funding. This raises the risk of these domestic entities to a sovereign debt default.

Sovereign Debt Restructuring Episodes

Several Caribbean SIDS have initiated sovereign debt restructuring operations over the past two decades but they have not been able to lock in the durable gains of debt relief, leading to repeated restructuring in a few countries while others remain highly indebted. Restructuring debt by lengthening the maturity period and reducing the interest rate without some forgiveness has typically not solved debt sustainability problems in SIDS (Hurley 2015). '*Too little, too late*' appears to be the dominant experience in Caribbean sovereign debt restructuring episodes rather than '*too much, too soon*' (Borensztein and Panizza 2009; IMF 2013c; Yeyati, Borensztein and Panizza 2011). Moreover, even if sufficient debt relief is provided to Caribbean countries, the risk of renewed indebtedness is very high, given the volatile economic and financial environment and the high vulnerability of the Caribbean region to external shocks. **Table 6** presents some characteristics related to sovereign debt restructuring exercises in Caribbean SIDS.

Chinese lending institutions. Likewise, Caribbean countries do not fully report the disaggregation of their bilateral loans, including from China.

TABLE 6: CARIBBEAN SIDS: CHARACTERISTICS OF SOVEREIGN DEBT RESTRUCTURING EXERCISES, 2000-2021

COUNTRY	YEAR DEBT DECLARED UNSUSTAINABLE	DATE RESTRUCTURING ANNOUNCED	TYPE OF RESTRUCTURING	CREDITOR	FINAL EXCHANGE OFFER	DURATION (MONTHS)	IMF PROGRAMME	DEBT RESTRUCTURED	DEBT EXCHANGED (US$ MN)	CUT IN FACE VALUE	NET PRESENT VALUE HAIRCUT ESTIMATE*
Antigua & Barbuda	1990s	Jan-10	Pre-emptive	Private (Domestic)	May-10	5	Yes	Bank Loans	$153	0%	13%
				Paris Club	Sep-10	-	Yes	Bank Loans	$117	0%	0%
Barbados	2018	Jun-18	Post-Default	Domestic	Nov-18	5	Yes	Bank Loans, Bonds & Treasury securities	$5,778.5	0%	30-44%
				Private (External)	Nov-19	12	Yes	Bonds	$540	4%	26%
Belize	2005	Aug-06	Pre-emptive	Paris Club	May-06	-	Yes	Bank Loans	$16	0%	0%
				Private (Domestic/ External)	Feb-07	6	No	Bonds/ Bank Loans	$547	0%	29%
	2010	Aug-12	Post-Default	Private (External)	Mar-13	7	No	Bonds	$526	10%	43%
	2016	Nov-16	Pre-emptive	Private (External)	Mar-17	5	Yes	Bonds	$526	0%	28%
	2020	Mar-21	Post-Default	Private (External)	Nov-21	8	Yes	Bonds/Debt for Climate Swap	$526	45%	50%
Dominica	2001	Jul-03	Post-Default	Private (Domestic/ External)	Apr-04	15	Yes	Bonds/Bank Loans	$144	15%	54%
Grenada	2004	Oct-04	Pre-emptive	Private (Domestic/ External)	Nov-05	13	No	Bonds/Bank Loans	$249	0%	38.4%
		Oct-04	Pre-emptive	Bilateral (Paris Club)	May-06	-	Yes	Bank Loans	$16	0%	13.2%
	2013	Mar-13	Post-Default	Private (External)	Nov-15	32	Yes	Bonds	$260.00	50%	50%
		Mar-13	Post-Default	Bilateral (Non-Paris Club)	Jan-15	22	Yes	Bank Loans	$36.6	0%	0%
Jamaica	2008	Jan-10	Pre-emptive	Domestic	Jan-10	1	Yes	Bonds	$7,855	0%	20%
	2012	Aug-12	Pre-emptive	Domestic	Feb-13	7	No	Bonds	$9,100	0%	10%
St. Kitts & Nevis	2006	Jun-11	Post-Default	Private (Domestic/ External)	Apr-12	10	Yes	Bonds/Bank Loans; Debt for Land Swap	$137	31.8%	65%
				Bilateral (Paris Club)	May-12	-	Yes	Bank Loans	$0	0%	0%
Suriname	2020	Sep-20	Post-Default	Private (External)	Negotiations underway		Yes	Bonds	$675	70%	n.a.

Sources: *CDB (2013), Asonuma et.al. (2018), Munevar (2018), Various IMF Article IV Consultation Reports, and country authorities' websites*

Note: **A haircut is a reduction in the face value of the nominal debt.*

The evidence is as follows:

- A sovereign debt restructuring exercise is likely to take place in the Caribbean nearly every year. Between 2000 and 2021, eighteen episodes of sovereign debt restructuring operations were concluded in seven Caribbean SIDS – Antigua & Barbuda, Barbados, Belize, Dominica, Grenada, Jamaica, and St. Kitts and Nevis. At the end of June 2022, Suriname is still engaged in debt restructuring negotiations with its external creditors, a process which it started since September 2020. Most of these debt restructuring exercises were pre-emptive, meaning they were completed before the government missed any payments on its debt. The remainder occurred after the government defaulted on its debt. With the exception of Barbados, all recent Caribbean debt restructurings were pre-emptive. Finally, most countries restructured both their domestic and external debt portfolios. **Box 1** gives a summary of Barbados' 2018-2019 experience with restructuring both domestic and external debt.

- Most Caribbean debt restructuring operations are delayed, taking place a considerable period after the debt is declared unsustainable. The median delay is about three years. However, there are important differences among Caribbean countries. In St. Kitts and Nevis, IMF Article IV Consultation reports going back as far as 2006 noted explicit concerns about an explosive debt path, although it was only in 2011 that the government announced its intention to restructure the debt in the context of a Fund-supported program. While Jamaica (2010) conducted its domestic debt exchange about two years after losing market access, it took Antigua & Barbuda about 20 years to deal with a clearly unsustainable public debt path. The other cases fall within these extremes. Although delays due to creditor holdouts and litigation are possible, these have been rare in the Caribbean. Only Dominica had difficulties with creditor holdouts.

- Two-thirds of the debt restructuring episodes in the Caribbean were supported by IMF programs. The involvement of the IMF usually provides comfort to creditors and other stakeholders that the debt restructuring exercise is part of a credible and comprehensive economic program. An IMF-supported program also helps to build consensus by demonstrating burden sharing. The restructurings in Belize (2007 and 2013), Grenada (2005) and another in Jamaica (2013) did not involve IMF programs. Even in these cases creditors still relied on IMF reports to determine the credibility of the country's own home-grown program in restoring growth and debt sustainability.

BOX 1. BARBADOS DEBT RESTRUCTURING 2018-2019

2018 DOMESTIC DEBT EXCHANGE

At the end of March 2018, the government of Barbados had total debt of approximately US$7.4 billion. Of that, nearly US$6 billion (over 80 percent) comprised various forms of domestic debt. Given its large size, the domestic debt was the priority in reaching a solution with domestic creditors to provide meaningful debt relief to the Barbadian Government. The domestic debt comprised treasury bills, treasury notes, debentures, savings bonds, tax certificates and a significant amount of arrears, and it was held by a range of creditors - individuals, private pension funds, local commercial banks, insurance companies, the National Insurance Scheme and the Central Bank of Barbados. On September 7th 2018, the Barbados Government launched an exchange offer for its domestic debt, as a prior action for approval of the IMF program, which had set an objective of achieving a sustainable 60 percent debt to GDP ratio by 2034.

In September 2018, the parliament of Barbados adopted legislation that retrofitted a collective action mechanism into the country's domestic debt, a rarely used approach that followed Greece's 2012 debt restructuring as a precedent. Under this legislation, creditors holding 75 percent of Barbados' specified debt instruments can, if they accept a restructuring proposal, make the debt restructuring legally binding on all creditors. On this basis, the Barbadian Government announced at the end of October 2018 that holders of 97 percent of the domestic debt (including all banks and insurers) had approved the exchange offer. Commercial banks, life insurers, general insurers, and other financial institutions (including credit unions) incurred an average reduction of about 30 percent on the face value of their debt; the National Insurance Scheme and the Central Bank of Barbados incurred substantially higher losses of over 40 percent and 75 percent, respectively on the principal values of their debt. A natural disaster clause was included in these new bonds and is intended to facilitate debt relief in the event of a natural disaster hitting Barbados. These actions reduced the stock of Barbados' domestic debt from 128 percent of GDP to 90 percent by December 2019.

BARBADOS 2019 EXTERNAL DEBT EXCHANGE

Following the successful domestic debt exchange, the Barbados Government turned its full attention to a commensurate restructuring of its US dollar-denominated debt, which comprised three Eurobonds totaling US$540 million and a Credit Suisse bank loan facility totaling US$92 million. The Eurobonds were governed by English law and the Credit Suisse facility by New York law, placing these securities beyond the scope of the recent Barbados bondholder legislation. The Eurobonds each contained a collective action clause that required a quorum of 75 percent of the outstanding amount of the bonds to effect a restructuring, while the Credit Suisse loan required the consent of all lenders to effect an exchange for new bonds. The international creditors therefore held a strong hand.

Negotiations with the committee of external creditors formed to represent the interests of bondholders were extensive and continued until terms were agreed in principle in October 18th 2019. The agreement featured a 26 percent haircut on original principal and past due and accrued interest; the issuance of a new long-term bond with a 10-year maturity in October 2029, a 5-year grace period, a 6.5 percent interest rate and a natural disaster clause which would enable the Government of Barbados to capitalize interest and defer principal maturities for two years in the event of a natural disaster. The agreement also provided for a staggered upfront payment of US$40 million in the period 2019-2021, the first tranche of which was paid in December 2019.

In a November 23rd 2019 press release, the Barbados government announced that the debt exchange had been entirely successful, with participation well above the 75 percent threshold for the three outstanding Eurobonds and at 100 percent for the Credit Suisse facility. On December 11th 2019, the transaction closed with full creditor participation. On the same day, and in response to the completion of the debt exchange, Standard and Poor's upgraded Barbados' foreign currency sovereign credit rating from Selective Default to B-, lower non-investment grade.

- Most debt restructurings were completed within a relatively short period of less than a year. Debt restructuring programs which involve no reduction in face value were settled more promptly. The Grenada (2004), Belize (2005) and Jamaica (2008) exercises involved no reduction in face value and were completed in relatively short time periods. Another two episodes in which Grenada (2013) restructured part of its bilateral debt with a non-Paris Club creditor and its euro bonds with private creditors, took longer to complete at 22 and 32 months, respectively.

- Nominal creditor losses have not been significant in the Caribbean, although 15 of the 18 exercises involved principal haircuts. A haircut is a reduction in the face value of the nominal debt and affects the capital base of creditor institutions like banks and insurance companies, and depending on exposure could push capital adequacy below acceptable limits. Haircuts varied across countries, ranging from zero in the cases of Antigua & Barbuda, Barbados, Belize, Grenada and Jamaica to about 50 percent of the eligible private external debt for Grenada (2015).

- Most of the debt restructurings in the Caribbean have focused on the provision of Net Present Value (NPV) debt relief through extension of maturities. The range of debt relief varied widely, ranging from about a 10 percent reduction in NPV terms in Jamaica (2013) to a substantive 65 percent for St. Kitts and Nevis (2012). Even though the NPV operation provides short-term debt servicing relief, it can only contribute to debt sustainability if the future rate of real GDP growth is expected to be higher than the real rate of interest. Given the exposure of the Caribbean region to external shocks and the projections for climate change impacts in which growth is likely to be constrained, an NPV approach is not appropriate to addressing the problems of debt sustainability in Caribbean SIDS. The initial debt restructuring episodes of Grenada, Jamaica and Belize all focused on NPV debt relief through an extension of maturities, but these countries were still left in a vulnerable position to external shocks and required additional debt restructuring operations after a few years.

- Since a restructuring is disruptive and costly to the debtor country's perceived creditworthiness, it is not desirable to repeat it, yet a few Caribbean SIDS have repeatedly restructured their sovereign debt. Belize has restructured its commercial debt with external creditors four times within the last ten years and restructured the same Eurobond instrument twice in five years. Jamaica restructured its domestic debt twice within five years. Grenada restructured its debts in November 2005 but announced in March 2013, some seven years later, its intention to once again restructure its external debts.

- Most Caribbean SIDS are perfect, but unfortunate examples of the "too little, too late" problem of sovereign debt restructuring. The restructuring failed to provide enough relief to secure debt sustainability and took place long after the country is in financial distress (Munevar 2021a). **Table 7** shows that post-restructuring, St. Kitts and Nevis is the only Caribbean country that saw a quick and sizable debt reduction to the 60 percent of GDP debt sustainability threshold within a five-year horizon. Most other Caribbean SIDS required more than five years for their debt levels to fall significantly below distress levels. Interestingly, St. Kitts conducted a debt for land swap with its domestic creditors [8], while debt restructuring operations for other Caribbean SIDS provided mainly cash flow relief. Belize's last debt restructuring involved a debt for nature swap, which saw its external debt fall by 10 percent of GDP, but yet the IMF has still assessed Belize's public debt as unsustainable.

TABLE 7: POST DEBT RESTRUCTURING OUTCOMES IN SELECTED CARIBBEAN SIDS
(PUBLIC DEBT IN % OF GDP)

COUNTRY	YEAR OF RESTRUCTURING	PRE-RESTRUCTURING	POST-RESTRUCTURING	AFTER 5-YEARS POST-RESTRUCTURING	
				PROJECTION	ACTUAL
Grenada	2005	130	120	**82**	**97**
Belize	2007	92	90	**84**	**79**
Jamaica	2010	124	140	**115**	**123**
St. Kitts & Nevis	2012	154	117	**85**	**56**
Jamaica	2013	147	143	**118**	**94**

Sources: *IMF (2013c), IMF World Economic Outlook Database, October 2021*

8 A debt-for-land swap played a key part in the 2012 restructuring of St. Kitts and Nevis' domestic debt: 1,200 acres of government land was placed in a special purpose vehicle, and funds received from sales were used to settle almost one-quarter of the state's public debt with mostly domestic banks. The debt-for-land swap resulted in a reduction of 20.9 percent in the public debt stock of St. Kitts and Nevis.

Based on the above, it is evident that any sovereign debt initiative for Caribbean SIDS must take into account the diversity in their public debt profiles and their varied experiences with debt restructuring. Traditionally, the Paris Club has represented an informal group through which Caribbean governments would renegotiate a rescheduling (not reduction) of their official bilateral debt with some of their most important official creditors. Typically, Paris Club creditors have offered to extend debt maturities over 12 years with a five-year grace period. Lower interest rates can also be negotiated with Paris Club creditors. A country must demonstrate payment difficulties and reach an understanding with the IMF on an adjustment program in order to be considered for a Paris Club debt restructuring. However, more recently, the Paris Club group has become less useful for the region since these official creditors now hold less than one-tenth of the bilateral debt of Caribbean SIDS.

Any new sovereign debt restructuring strategy for Caribbean SIDS must recognise the very critical role of China which holds at least 35 percent of the non-Paris Club debt of Caribbean countries.

However, there are several challenges in this regard.

- First, China is not a member of the Paris Club group of official creditors, which coordinates, within a multilateral framework, the external debt resolution of emerging markets and developing countries, including Caribbean SIDS. This coordination includes the sharing of information about the amounts and terms of claims against a debtor country. China's absence from this system makes it difficult to coordinate with it as an official bilateral creditor (Chorzempa and Mazarei 2021). The lack of complete information regarding the terms of Chinese loans not only hinders assessment of the indebtedness and debt sustainability risks of debtor countries, but it also undermines the restructuring of those debts when these countries fall into financial distress.

- Second, coordinating claims by China's private and quasi-official creditors is also difficult. It is not clear whether the China Development Bank, the Export-Import Bank of China (China EXIM Bank), and the Industrial and Commercial Bank of China, the key facilitators of Chinese bilateral lending, should be treated as private or official creditors and the extent to which they act jointly.

- Third, Chinese sovereign loans include unique provisions that protect China's existing commercial interests and ensure that China is paid before other creditors. These loans prioritize China's interests by creating collateral arrangements, such as Chinese-controlled revenue accounts in which revenue from a debtor's sale of commodities is deposited into an account controlled by China and acts as collateral for the loan (Gelpern et al. 2021). The contracts also include the so-called "No Paris Club" clauses that keep Chinese debt out of collective restructuring efforts among the Paris Club group of bilateral lenders, thereby ensuring that Chinese debts are prioritized above other bilateral debts and allowing China to freeride on multilateral debt relief efforts.

Nevertheless, China has tended to pursue ad hoc debt restructurings, with varying degrees of coordination between the Chinese government and the international community and among its own lending institutions. Bon and Cheng (2020) find that for the 140 cases of debt restructuring in which China was an official creditor from 2000 to 2019, most restructuring involved cancellation of principal and/or arrears. China has also joined both debt relief initiatives established by the G20, the Debt Service Suspension Initiative (DSSI) and the Common Framework for Debt Treatment beyond the DSSI. This suggests that there is scope to engage China and for it to sit at the sovereign debt renegotiating table in coordinating debt relief claims of Caribbean SIDS.

Except for Guyana and Haiti, Caribbean SIDS have not been included in international debt relief initiatives such as the IMF and World Bank Group's enhanced Heavily Indebted Poor Countries (HIPC) Initiative and the Multilateral Debt Relief Initiative (MDRI). These global initiatives seek to address the multilateral and bilateral debt burdens of some of the world's poorest and most severely indebted countries. Guyana and Haiti were the only two Caribbean SIDS considered both heavily indebted enough and poor enough to receive enhanced HIPC and MDRI assistance (Commonwealth Secretariat 2013). In 1997, the IMF and the World Bank Group agreed to support a comprehensive debt reduction package for Guyana, while after continued global calls for debt cancellation, Haiti, the poorest country in the Latin American and Caribbean region, became eligible from 2006 for debt relief. As a result, there has been a significant decline in the public indebtedness of these two Caribbean SIDS. Guyana's central government debt declined from 101 percent of GDP in 1997 to under 50 percent of GDP by 2007. Haiti's public debt fell to just under 20 percent of GDP in 2017 from over 45 percent of GDP in 2006.

The high indebtedness of Caribbean SIDS to private creditors complicates any sovereign debt restructuring process. In order to restructure private debt, debtor countries are obliged to approach private creditors on an ad-hoc basis to negotiate a solution. In practice, this can be a complex, lengthy and arduous process since many countries have a large and diverse set of commercial creditors. In Suriname, for instance, bondholders represent the most opaque segment of public creditors. In the case of its 2023 Eurobond, there is no publicly available data to identify who are the bondholders. By contrast, it is possible to identify just over 40 percent of the bondholders of Suriname's 2026 Eurobond (Munevar 2021a).

Even after identifying bondholders, restructuring a sovereign bond can stretch the capacity of any small country. Sovereign bonds are typically restructured through an exchange offer. This involves verifying bondholder claims, preparing an exchange offer (most likely after consultation with the bondholders), launching the exchange offer that sets conditions and deadlines for bondholder participation, and exchanging the debt (Nicholls 2014). The formation of a creditor committee helps to address these creditor coordination problems. In principle, the decisions of the committee, once made, should be accepted by all committee members and the creditors that they represent (Buchheit et al. 2019). Creditors (and creditor committees) are often well-resourced compared to the debtor country and can heavily influence the outcome of a debt restructuring. Suriname's current debt restructuring negotiations demonstrates the power of creditor committees. Initially, negotiations between the Surinamese authorities and the Bondholder Committee which represents 43 percent of the 2023 and 2026 bonds appeared to be going smoothly, until the government outlined its first restructuring offer that the Committee called "*well outside the bounds of good faith negotiations.*" Not only was the proposed haircut larger than expected, the Bondholder Committee wanted the debt relief proposals to take account of Suriname's offshore oil and gas projects under development even though the IMF had recommended that Suriname exclude unproven oil reserves from the country's debt sustainability analysis. Suriname's government is now considering a value recovery mechanism, which provides compensation to bondholders that is contingent on future oil revenues to reconcile the demands of bondholders and the IMF's position.

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Debt Sustainability in the Six Very Highly Indebted Caribbean Sids

The analysis in this section focuses on the six very highly indebted Caribbean SIDS - those with public debt to GDP ratios that exceeded 100 percent at end-2020. These countries are Barbados, Suriname, Belize, Dominica, Jamaica and Antigua & Barbuda - henceforth called the "Caribbean-6."

The IMF's most recent Debt Sustainability Analysis (DSA) for these Caribbean-6 countries is used to help answer three main questions:

i. **If current policies are pursued, what would be the level of debt in the next five years;**

ii. **What is the primary surplus needed to prevent debt from rising and simply stabilize it at the current (very high) levels; and**

iii. **What is the primary fiscal surplus needed to reduce the public debt to GDP ratio to 60 percent and in what timeframe.**

Guzman and Heymann (2016) review of the IMF's DSA show that there are serious deficiencies that should be addressed. The consequences of the existing flaws are generally delays in the recognition of the needs of public debt restructuring as well as giving legitimacy to IMF policy interventions consistent with the IMF lending framework that aggravate recessions, turning them into depressions, and that create large inter-creditor inequities. IMF projections for assessing debt sustainability have been repeatedly biased, which may have contributed to distort the timing of sovereign debt restructurings and the consequent processes of renegotiation. In addition, the DSA does not sufficiently consider climate risks even though these pose significant threats to the debt sustainability of SIDS. Nevertheless, the IMF's DSA remains the only publicly available and comparative analysis of debt sustainability for countries, including those in the Caribbean, which is why it is used but cautiously in this study.

i. BARBADOS

Public debt in Barbados is expected to decline over the medium term but will still remain high and subject to considerable risks. If current policies are pursued, Barbados' public debt is projected to decrease to around 100 percent of GDP around 2026, and to subsequently achieve the 60 percent-to-GDP debt target at the earliest in FY2035/36 but this can only be done by consistently running higher primary surpluses of 5 percent of GDP. The debt-stabilizing primary balance is set at 0 percent of GDP under the IMF-supported program. Risks to the projected fall in debt include a longer-than-expected COVID-19 shock with elevated spending needs and a slower economic recovery, and the ability of the Barbadian Government to maintain high primary surpluses over an extended period supported by the steady implementation of structural reforms. These risks are mitigated by Barbados' strong track record under the IMF-supported program, a favorable debt service schedule, and improved market perceptions following the comprehensive 2018-19 domestic debt restructuring.

ii. SURINAME

Suriname is grappling with an economic crisis, worsened by the COVID-19 pandemic, and in November 2020 defaulted on its sovereign debt. The authorities are advancing debt restructuring negotiations with private and official creditors. Paris Club creditors have provided financing assurances to provide debt relief. Both China and India continue to consent to Suriname's use of IMF resources despite the country running arrears on their official debt. Under the current debt restructuring scenario, Suriname's public debt is projected to fall from 148 percent of GDP in 2020 to an intermediate target of 120 percent of GDP by 2024 when the IMF program ends, and then to 60 percent of GDP in 2035. This requires the Surinamese government to run a projected substantial improvement in the primary fiscal surplus of 4.5 percent of GDP by 2024 when the program ends. After the program, the debt-stabilizing primary surplus is projected to converge to 3.5 percent of GDP and remain at this level until 2035. The required long-term primary fiscal balance needed to stabilize Suriname's debt is not in line with Suriname's recent experience. Between 2010-2018, for instance, Suriname's government ran a primary fiscal deficit averaging over 2.5 percent of GDP. In 2019, the primary deficit widened substantially to about 19 percent of GDP before narrowing to just under 10 percent of GDP in 2020. Furthermore, even after its debt restructuring, public debt in Suriname would still remain highly vulnerable to macro-fiscal shocks, in particular to real exchange rate depreciation, economic growth, primary balance, and higher recapitalization needs of the banking system and/or the Central Bank of Suriname.

iii. BELIZE

Despite restructuring its private commercial debt a record four times and undertaking a debt for climate swap, Belize's public debt would continue to be assessed as unsustainable in the absence of additional measures as it would remain above typical thresholds for sustainability over the next decade. Like many other Caribbean SIDS, Belize is a classic but unfortunate example of the "too little, too late" problem of sovereign debt restructuring. Under current policies, Belize's debt to-GDP ratio is projected to fall gradually from its peak of 133 percent in 2020 to 85 percent of GDP in 2025 and to 70 percent in 2030, which still remains above the 60 percent of GDP sustainability threshold. Belize has run an average primary fiscal deficit of less than 1 percent of GDP between 2000 and 2020. Going forward, the authorities' own home-grown program envisages that a primary surplus of 0.7 percent of GDP over the medium term is required to prevent debt from rising and simply stabilize it at current levels, which is highly questionable based on the country's historical track record of running mainly primary deficits. Most of Belize's debt is external and with prominent downside risks to the outlook, debt dynamics will remain vulnerable to adverse shocks to growth, interest rates, or the fiscal position.

iv. DOMINICA

Dominica continues to be at high risk of debt distress with elevated levels of public debt. The COVID-19 pandemic worsened preexisting debt sustainability challenges, as the economy was still recovering from two successive natural disasters - Hurricane Maria which ravaged the island in 2017 and Tropical Storm Erika in 2015. Public debt peaked at 106 percent of GDP in 2020. If current policies are pursued, Dominica's public debt is projected to trend downward to 60 percent of GDP by 2035. The primary surplus required to both stabilize Dominica's debt and bring it down to the more sustainable 60 percent of GDP target is projected to reach just over 3.5 percent of GDP by 2029, which is quite high by recent standards. Dominica's primary deficit widened significantly to almost 15 percent of GDP in 2018, before narrowing to an average of about 5 percent of GDP in 2019-2020. Dominica has no access to the international capital markets and relies instead on donor grant funding and concessional financing. The main downside risks to Dominica's debt sustainability outlook include a more prolonged impact of the COVID-19 pandemic with a slower recovery in tourism, recurrent natural disasters, and weaker than projected revenues from the Citizenship-by-Investment program.

v. JAMAICA

Jamaica's debt is considered sustainable, given the authorities' strong policy track record and prudent debt management over the past decade. Prior to the COVID-19 pandemic, Jamaica made good progress in successfully reducing public debt from 142 percent of GDP in 2009 to 94 percent of GDP by 2019. This reduction paid off through a sharp decline in interest rates, as the government's interest bill fell from 17 percent of GDP in 2009 to 6 percent in 2019. When the pandemic hit, the government temporarily increased spending on health and social protection and public debt increased to an estimated 108 percent of GDP. The primary surplus declined by half to 3.5 percent of GDP in 2020. To safeguard Jamaica's long, hard-won economic stability, the government aims to reduce public debt to a sustainable 60 percent of GDP by 2028 on current policies, but then only by retaining an extraordinarily strong fiscal stance - a primary surplus of 7 percent of GDP will be needed each year for the next five years to stabilize and bring debt down to this sustainable target. Jamaica's projected debt trajectory remains vulnerable to the high degree of uncertainty from the size and duration of the COVID-19 shock and the associated risks to growth, interest rates, exchange rate and fiscal revenues.

vi. ANTIGUA & BARBUDA

Antigua & Barbuda has been hit hard by the COVID-19 pandemic, which sharply increased public debt to 101 percent of GDP in 2020, from just over 80 percent of GDP in 2019. The government has embarked on an economic plan which seeks to restore debt sustainability and gradually resolve outstanding domestic and external arrears. The government is determined to meet the targets under its medium-term fiscal strategy and on current policies to bring public debt-to-GDP to under 70 percent by 2030. However, this requires the government to continuously achieve annual primary surpluses of 3 percent of GDP over the medium term not only to stabilize Antigua & Barbuda's debt but also bring it closer to the 60 percent of GDP sustainable debt target. Antigua & Barbuda has run a primary deficit averaging 0.5 percent of GDP between 2016-2020. In 2021, the primary deficit was just under 2 percent of GDP. The 2022 budget envisages a zero primary balance. Even then, public debt in Antigua & Barbuda will remain fragile and highly vulnerable to several types of shocks, including to climate change and natural disasters.

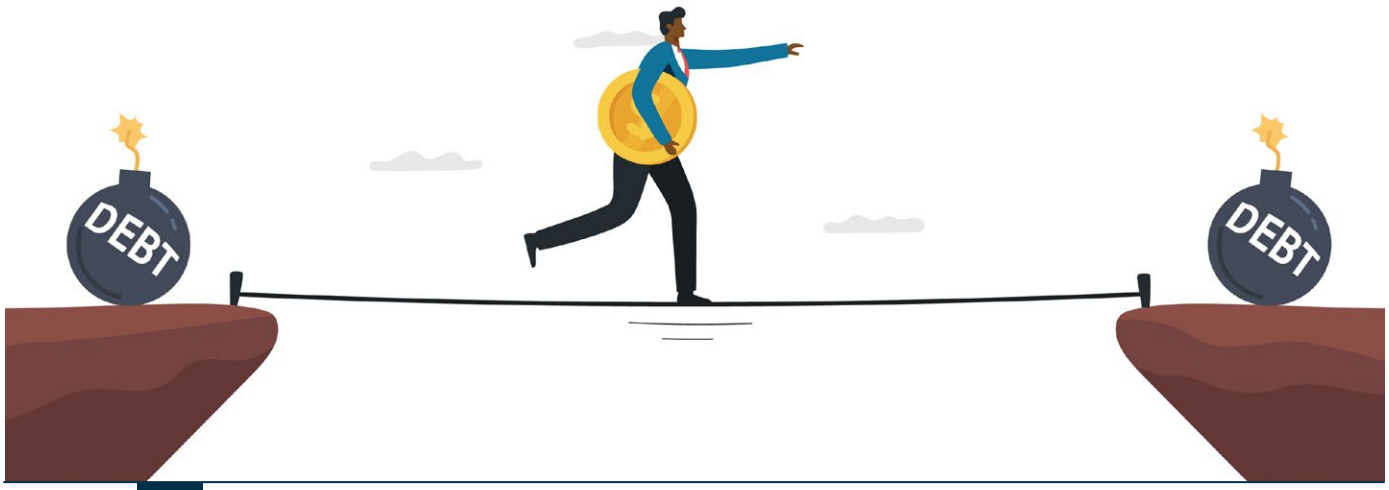
Prospects for Debt Sustainability in The Caribbean-6

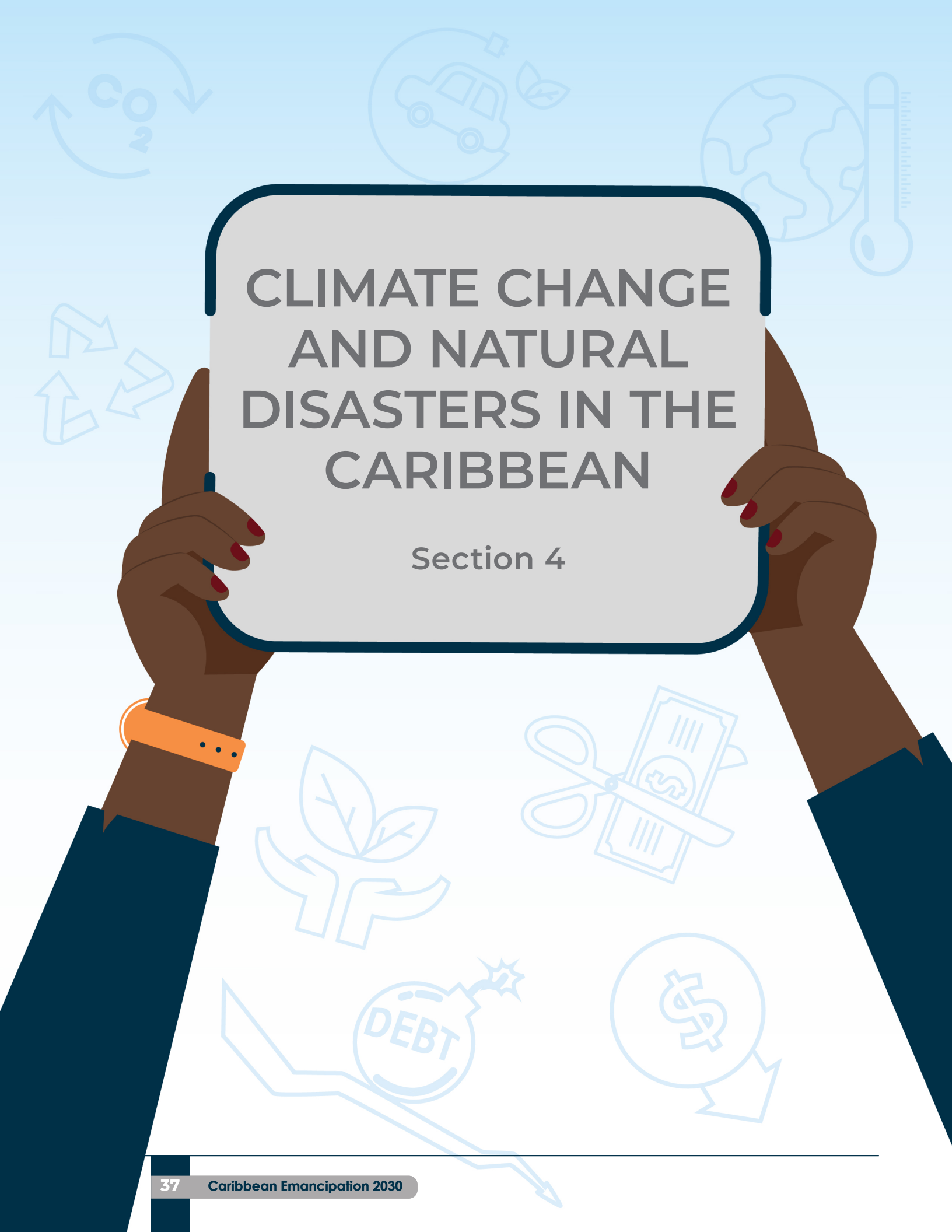
Prospects for debt sustainability in the Caribbean-6 show a sobering picture. These six Caribbean SIDS are likely to remain at risk of debt distress throughout the period to 2030, when the 2030 Agenda for Sustainable Development which seeks to reduce poverty and attain the SDGs comes to an end. In these countries, reducing public debt to a more sustainable 60 percent of GDP requires them to maintain sizeable primary fiscal surpluses over a sustained period, at least 3 percent of GDP over a 10-year period. As shown in **Table 8**, the magnitude and duration of primary surpluses required to achieve debt sustainability in Caribbean SIDS is far from their track record of fiscal performance, except for Jamaica. At the same time, the COVID-19 pandemic has posed a further drag on debt dynamics within the region. Rising interest rates in the United States will further drive up the cost of debt and make international refinancing ever harder for those Caribbean SIDS that still maintain access to Eurobond markets. The effects of the war in Ukraine on the world economy, and on food and commodity prices in particular, are likely to further undermine debt sustainability. Even with strong political will, the fiscal adjustments needed to achieve debt sustainability for Caribbean SIDS are just not feasible. Instead, these projections point to the strong likelihood that in the absence of a new and innovative, internationally supported initiative to permanently reduce Caribbean public debt, the region faces the very real prospect of losing three decades of sustainable development opportunities, while still grappling with a crippling debt overhang.

TABLE 8: CARIBBEAN-6: DEBT SUSTAINABILITY ANALYSIS

COUNTRY	PUBLIC DEBT (% OF GDP)		PRIMARY BALANCE (% OF GDP) /1	TARGET PRIMARY SURPLUS (% OF GDP)
	2020	2025		
Barbados	157	107	0.6	5
Suriname	148	146	-4.1	4.5
Belize	123	107	0	0.7
Dominica	120	88	-1	3.5
Jamaica	107	67	6.5	7
Antigua & Barbuda	103	84	0	3

Sources: *IMF Article Consultation Reports*
Note: */1 average 2010-2019*





CLIMATE CHANGE AND NATURAL DISASTERS IN THE CARIBBEAN

Section 4

Climate Change and Natural Disasters in The Caribbean

Due to their size and location, Caribbean SIDS are particularly susceptible to the impacts of climate change. Even though they are responsible for less than 1 percent of global GHG emissions, Caribbean nations are already affected by climate change, notably through changes in temperatures, precipitation, sea level rise and the increasing intensity of tropical storms and hurricanes.

Stephenson et al. (2014) found an increase in the average day time (night time) temperatures in the Caribbean region of approximately 0.19°C/decade (0.28°C/decade) over the period 1960-2010. The increase is consistent with the global warming trend recorded over the past century (IPCC 2018). Higher temperatures have serious consequences on the region's agriculture, commercial fisheries and marine ecosystems (UNECLAC 2011). This may compromise the Caribbean's drive for food security at a time when world food commodity prices are spiking upwards because of supply chain disruptions due to COVID-19 and Russia's invasion of Ukraine. Energy is another pressing concern for the Caribbean. There is a high dependency on imported fossil fuels for energy, except in Trinidad and Tobago and Guyana, which are oil producers. As temperatures rise in the Caribbean region, which is already hot for most of the year, this will further raise the demand for energy and fuel imports (IDB 2011) in many foreign exchange-constrained Caribbean SIDS.

Due to its slow-onset nature, drought is often overlooked, however, Caribbean SIDS face significant challenges due to more frequent and longer droughts. The Caribbean region has experienced severe droughts in 1974–1977, 1997-1998, 2009-2010, and 2013–2016 (Herrera and Ault 2017; Herrera et al. 2018; and Walters 2018). Of the four periods, the 2013-2016 drought was the most severe, as virtually the entire region experienced a Pan-Caribbean drought, partly associated with anthropogenic warming and partly with the 2015-2016 El Niño event. Throughout the Caribbean, there were many reports of reduced agricultural crop production, loss of livestock, increase in bushfires, reports of empty water reservoirs and ensuing water restrictions, as well as reports of reduced hydropower generation, hotel cancellations and, in one nation, a temporary stop in the provision of water to cruise ships (CDB 2020). As of 2013, seven of the world's top 36 water-stressed countries (including Antigua & Barbuda, Barbados and St. Kitts and Nevis) are from the Caribbean and have less than 1,000 cubic meters of freshwater resources per capita (FAO 2016). Further water stress in the Caribbean is likely with the expansion of the tourism industry, population growth, urbanization, increasing societal affluence, ineffective water management practices and strategies, and declining water quality due to anthropogenic activities and climatic factors (CDB 2020).

Existing studies suggest that, in the mean, trends in Caribbean Sea level rise are very similar to global trends, rising at a rate of 1.7 ± 0.2 mm/year (Palanisamy et al. 2012; Torres and Tsimplis 2013). This is most likely to severely impact Caribbean tourism. Caribbean SIDS are heavily dependent on tourism, which prior to the COVID-19 pandemic accounted for around 15 percent of the Caribbean region's GDP and 14 percent of total employment in 2019 (World Travel and Tourism Council 2019). In 2019, Caribbean destinations received an estimated 32 million international tourist arrivals, and tourist receipts reached almost US$35 billion.

Climate is an important driver of the Caribbean tourism demand which largely depends on the "sun, sand and sea" brand to attract visitors. Tourists, most of who come from the United States, Canada and Europe, would be unwilling to visit the Caribbean if the main tourist attractions (beaches and coral reefs) were further affected by sea level rise. Almost one-third of Caribbean tourism resorts are at flooding risk of their beach assets that would be substantially damaged or destroyed by combined sea-level rise and storm surge (CCRIF 2010). Coastal houses, hotels and other buildings, along with roads and other infrastructure are also vulnerable, as are those who live and work there. The anticipated decline in the tourism industry from climate change would also negatively impact the air transportation sector, the most practical mode of travel for tourists visiting the Caribbean.

Of special concern to heavily indebted Caribbean SIDS is the link between climate change and the frequency, intensity and duration of tropical storms and hurricanes. Though recent research suggests a global warming link with increases in the number of intense hurricanes, there is still a lack of consensus on the extent of the contribution of climate change to the frequency of tropical storms in the Caribbean region (CDB 2020). This is mainly because other long term modulators of sea surface temperature and consequently hurricane activity in the north tropical Atlantic such as The El Niño-Southern Oscillation phenomenon[9] are in

9 The El Niño-Southern Oscillation phenomenon plays a significant role in modifying hurricane activity in the North Atlantic from year to year i.e. notwithstanding long term trends. El Niño contributes to fewer Atlantic hurricanes while La Niña contributes to more Atlantic hurricanes. El Niño produces upper level westerly wind anomalies and lower level easterly wind anomalies across the tropical Atlantic, which together result in higher vertical wind shear.

a positive (enhancement) phase. According to Munevar (2018) the 2017 Atlantic hurricane season appears to corroborate the link between climate change and the intensity of tropical storms and provides valuable insight into what the Caribbean might face in the future under climate change. In historical terms, the season was the most active in the North Atlantic basin since 2005, and the seventh most active since the beginning of consistent hurricane data recording in 1851 (NOAA 2017). There was a total of 17 named tropical storms of which 10 were hurricanes and six further intensified to major hurricanes. Three of the most notable systems of the 2017 Atlantic hurricane season were Hurricanes Harvey, Irma and Maria all of which attained Category 5 status. Both Hurricanes Irma and Maria, which inflicted tremendous damage in the Eastern Caribbean, were "Cape Verde" type hurricanes.[10] There was substantial loss of life, widespread infrastructural damage, destruction of crops and livestock, diminished standards of living, and loss of livelihoods (see **Boxes 2 and 3**). The 2019 hurricane season proved to also be record breaking with Hurricane Dorian (Category 5) causing significant devastation in the Bahamas (see **Box 4**).

BOX 2: IMPACT OF HURRICANE IRMA

Hurricane Irma rapidly intensified from a tropical wave near the Cape Verde islands into an extremely powerful hurricane that caused widespread and catastrophic destruction across its path in September 2017, particularly in the northeastern Caribbean. On Wednesday August 30th 2017, the National Weather Service's National Hurricane Center (NHC) indicated that tropical storm Irma had formed in the eastern Atlantic. By Tuesday September 5th 2017, the system was a powerful Category 5 hurricane heading toward the Leeward Islands.

Irma was the first Category 5 hurricane to strike the Leeward Islands on record, followed by Hurricane Maria two weeks later, and surpassed by Hurricane Dorian two years later. Hurricane Irma was the second-most intense tropical cyclone worldwide in terms of barometric pressure and the strongest worldwide in 2017 in terms of wind speed.

In the Caribbean islands, 37 deaths were attributed to Irma. Barbuda, Saint-Martin/St. Maarten and the British Virgin islands all took direct hits from Hurricane Irma. On Barbuda, Irma was at peak intensity and the winds left 95% of the structures damaged or destroyed, while crippling the water and communication sectors. Property damage there was estimated at US $150-300 million and the island became deserted for the first time in 300 years.

In Saint-Martin (the French side of the island of St. Martin), 90% of structures were damaged and estimates of losses total US $1 billion, versus 70% of structures damaged, including a severely damaged airport in St. Maarten (the Dutch side). On nearby Saint-Barthélemy, economic loss was estimated to be over US $480 million.

In Anguilla, most properties were damaged, including schools, homes and the only hospital, with estimated economic losses of at least US $190 million. In the Turks and Caicos Islands, damage to structures and the islands communication was sustained, causing estimated total losses of at least US $500 million. Nine persons lost their lives in Cuba, and ten people died in the United States.

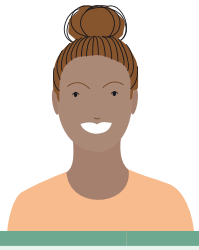
Irma's trail of damage and losses continued until it finally dissipated over Georgia on September 12th.

Source: *(CDB 2020)*

El Niño and La Niña also influence where the Atlantic hurricanes form. During El Niño events, fewer hurricanes and major hurricanes develop in the deep Tropics from African easterly waves. During La Niña, more hurricanes form in the deep Tropics from African easterly waves, with these systems having a much greater likelihood of becoming major hurricanes and eventually threatening the U.S. and Caribbean (CDB 2020).

10 Cape Verde hurricanes are hurricanes that canonically develop in the Main Development Region of the Atlantic not too far from the Cape Verdean islands, mostly from disturbances coming off of Africa. These hurricanes typically migrate east to west or north-west across the Tropical North Atlantic Ocean for several days before reaching the Antilles or passing north of the island chain. Cape Verde type hurricanes can grow to some of the most devastating hurricanes.

A key factor explaining the increased major hurricane activity in 2017 is the unusually high sea surface temperatures present in the tropical North Atlantic. If similar weather conditions continue into the future, it is likely that there could be an average of five to eight major hurricanes in a similar active year in the Caribbean region by the end of the century (Murakami et al. 2018). CDB (2020) advises that at the very least the Caribbean should contemplate a future where tropical storm/hurricane genesis, frequency and tracks are similar to what has been experienced in the very recent past (last two decades), but intensities (rainfall rates and wind speeds) are increased.



BOX 3: IMPACT OF HURRICANE MARIA

Like Irma, Hurricane Maria was a Cape Verde type hurricane. Some of the same islands threatened by Irma had to issue new warnings only a few days later after Irma.

On September 16th 2017, the US National Hurricane Center indicated that the tropical depression in the Atlantic had been upgraded to Tropical Storm Maria. On September 18th 2017, the system explosively intensified into a Category 5 Hurricane.

In the Caribbean, the direct deaths from Maria totaled 108. Dominica sustained catastrophic damage, with total losses estimated at US $1.31 billion, or over 225% of GDP. The agriculture sector was severely impacted and most roofs were either damaged or blown off. Roads were impassable and the communication system was destroyed. In Guadeloupe, an estimated 80,000 homes lost electricity, most of the banana crops were destroyed and officials estimated loss at US$120 million. The US Virgin Islands which was still recovering from Irma experienced heavy rainfall accumulations and mudslides.

On the island of Puerto Rico, Maria was the most destructive hurricane in modern times. The energy sector was crippled due to downed power lines and extensive damage to infrastructure. This resulted in the loss of electricity to the island's 3.4 million inhabitants. The winds also destroyed the islands only radar system, reducing the capacity of the National Weather Service's local office to deliver early warning for any pending adverse weather post-hurricane. Unprecedented river flooding in an entire alluvial valley resulted in the rescue of hundreds of families from roof tops. Officials estimated total losses in the US Virgin Islands and Puerto Rico at US$ 90 billion, making Maria the third costliest hurricane in US history, trailing only Harvey (2017) and Katrina (2005).

Source: *(CDB 2020)*

BOX 4: IMPACT OF HURRICANE DORIAN ON THE BAHAMAS

Hurricane Dorian was an extremely powerful and catastrophic Category 5 Atlantic hurricane, which became the most intense tropical cyclone on record to strike the Bahamas, and tied for strongest landfall in the Atlantic basin. It is also regarded as the worst natural disaster in The Bahamas' recorded history. It was also one of the most powerful hurricanes recorded in the Atlantic Ocean in terms of 1-minute sustained winds, with those winds peaking at 185 mph (295 km/h). In addition, Dorian surpassed Hurricane Irma of 2017 to become the most powerful Atlantic hurricane on record outside of the Caribbean Sea.

Dorian was the fourth named storm, second hurricane, the first major hurricane, and the first Category 5 hurricane of the 2019 Atlantic hurricane season. Dorian struck the Abaco Islands on September 1 with maximum sustained winds of 185 mph (295 km/h), tying with the 1935 Labor Day hurricane for the highest wind speeds of an Atlantic hurricane ever recorded at landfall. Dorian went on to strike Grand Bahama at similar intensity, stalling just north of the territory with unrelenting winds for at least 24 hours.

Hurricane Dorian took at least 70 human lives in the Bahamas, left another 282 people missing and affected 30,000 people by destroying their homes and property. The destructive power of this natural disaster reversed the country's recent economic progress and caused about US$3.4 billion in damages and losses, equivalent to one-fourth of the country's GDP. Most of the damage and losses were sustained in the private sector, primarily in the housing and tourism sectors. The Abaco Islands and Grand Bahama sustained the brunt of the damage and losses. Given the magnitude of this event and The Bahamas' geographical characteristics, such as the dispersion of settlements and uneven quality of public services throughout the islands, reconstruction will take several years.

After it ravaged through the Bahamas, Dorian proceeded along the coasts of the Southeastern United States and Atlantic Canada, leaving behind considerable damage and economic losses in those regions.

Sources: *https://en.wikipedia.org/wiki/Hurricane_Dorian; Zegarra et al. (2020)*

The Intergovernmental Panel on Climate Change (IPCC) has repeatedly warned that, without changes in the current pattern of global greenhouse gas emissions, global surface temperatures are likely to increase above 2°C by the end of the century. Climate projections suggest that as the century progresses, the Caribbean under the worst scenarios will be a significantly different place - much warmer and drier, with higher sea levels and prone to more intense storms - than at present, with the magnitude of projected changes greater than the magnitude of change seen over the last century (CDB 2020).

A scan of the literature suggests:

- The Caribbean as a whole will gradually warm through to the end of the current century. The mean annual air temperature increase will be up to 1.5°C by the 2050s and 3.05°C by the end of the century. The entire region will experience the warming, including both ocean and land, with the largest warming occurring over the larger land masses (Campbell et al. 2011; Karmalkar et al. 2013; and Taylor et al. 2018).

- The Caribbean in general will gradually dry going towards the end of the century. By the 2050s, the projections suggest up to 6 percent less rainfall and by the end of the century the region may be up to 17 percent drier. A general pattern is for Belize in the far west Caribbean and the Lesser Antilles and southern Caribbean to be the most severely impacted once drying has onset (Campbell et al. 2011; Karmalkar et al. 2013; and Taylor et al. 2018).

- Sea-levels will continue to rise in the Caribbean and may be close to the projected global mean rise. By mid-century, the global increase is between 0.24 and 0.30 mm per year, while by the end of century, the change is between 0.40–0.63 mm relative to 1986–2005 baseline levels (IPCC 2013). A number of studies (Rahmstorf 2007; Rignot and Kanargaratnam 2006; and Horton et al. 2008) suggest that the upper bound for the global estimates of sea level rise are conservative and could be much higher, with a rate of 8 to 16 mm/year by the end of century (2081–2100). Perrette et al. (2013) suggest the same for estimates for the Caribbean Sea, that is, a higher upper bound of up to 1.5 m of sea level rise by the end of the century.

- Whereas there is little consensus that there may be an increase in Atlantic storms and hurricanes, there is broad agreement that the intensity of the storms and hurricanes will likely increase under global warming (IPCC 2012). Bender et al. (2010) project a 28 percent reduction in the overall frequency of Atlantic storms but an 80 percent increase in the frequency of category 4 and 5 Atlantic hurricanes over the next 80 years. (Knutson et al. 2013) still show increases in category 4 and 5 storm frequency, but these are only marginally significant for the early 21st century or the late 21st century.

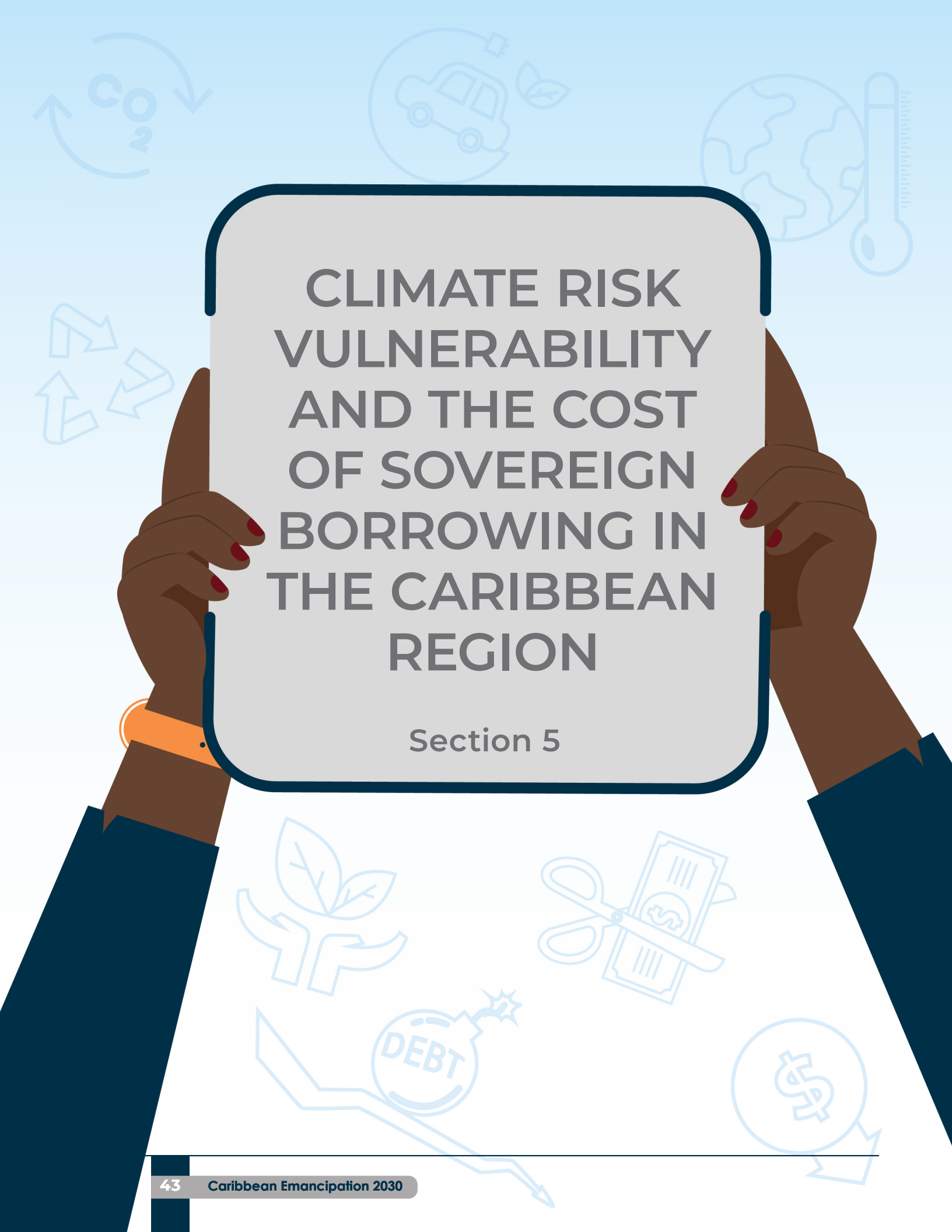
While it is challenging to measure comprehensive and long-term loss and damage of current weather and climate events, it is even more difficult to quantify residual losses and damages associated with projected climate change. Furthermore, most studies consider only the impacts of extreme events, whereas slow onset changes and related impacts are neglected due to the lack of input data required to calculate them (GIZ GmbH 2019). Therefore, little information on future loss and damage exists. Additionally, because definitions of loss and damage vary, there is little consistency between studies.

Two authoritative studies attempt to quantify future loss and damage in the Caribbean:

- CCRIF (2010) conducted a study which focused on quantifying the potential impact of climate change on three hazards – hurricane-induced wind damage, coastal flooding from storm surge and inland flooding due both to hurricanes and non-tropical systems – and indicated that there will be additional significant economic cost to the region as a result of climate change. Annual expected losses from the effects of disasters triggered by such hazards are expected to be in the range of 1–9 percent of GDP by 2030, depending on the country and the rate of climate change.

- Bueno et al. (2008) focused on three different types of impact – hurricane damage, tourism losses and infrastructure damages due to sea-level rise. For these three categories, the Caribbean's annual cost of inaction is projected to total US$ 22 billion annually by 2050 and US$ 46 billion by 2100. These costs represented 10 percent and 22 percent, respectively, of the 2004 Caribbean economy's GDP.

While these studies are useful to illustrate the potentially great impact of future climate change on the Caribbean region, they are limited in that they cover only loss and damage in a few key sectors and from specific types of hazards, notably extreme events, whereas slow onset events are not considered. Therefore, they likely significantly underestimate the residual costs of future climate change impacts. Nevertheless, even these estimates indicate that the capital investments required to finance the climate change adaptation efforts of Caribbean SIDS are considerable and likely to be beyond the capacities of many governments. Crucially, the ability of heavily indebted Caribbean SIDS to adapt to climate change will depend not just on the actions of national governments but more critically on the volume and availability of external finance for climate adaptation.



CLIMATE RISK VULNERABILITY AND THE COST OF SOVEREIGN BORROWING IN THE CARIBBEAN REGION

Section 5

Climate Risk and Credit Rating Agencies

Credit rating agencies have recently begun to pay attention to the exposure of sovereigns to climate risks and its potential role in credit assessment. Standard & Poor's described climate change as a "global mega-trend for sovereign risk" and highlighted that the impact on creditworthiness will probably be felt through various channels, including economic growth, external performance, and public finances (S&P 2014). It also emphasized that sovereigns will probably be unevenly affected by climate change, with poorer and lower rated sovereigns typically hit hardest, which could contribute to rising global rating inequality. Moody's (2020) highlighted sea-level rise as a long-term credit threat to several Asian, Middle Eastern, North African, and small island countries.

To date, none of the main credit rating agencies has downgraded a sovereign based on an direct attribution to climate risks, but when Moody's Investor Services downgraded Sint Marten in June 2019, part of its explanation included "the increase in Sint Marten's main debt metrics, resulting from the still on-going economic and financial shock following Hurricane Irma's landing in 2017" (Moody's 2019). Nonetheless, climate risks have not yet been specifically indicated in Sovereign Ratings Methodologies, the formal criteria published by rating agencies that delineate the factors relevant to credit rating assessment. S&P's current sovereign rating methodology considers climate risks only as intermediary variables influencing its key measures of economic, fiscal, and external performance (S&P 2015). Moody's bases its assessment of sovereign credit risk on the interplay of four factors: economic strength, institutions and governance strength, fiscal strength, and susceptibility to event risk (Moody's 2019). This methodology mentions climate risks briefly.

Moody's (2020) highlighted sea-level rise as a long-term credit threat to ***...small island countries***

Sovereign Credit Ratings in The Caribbean

Due to historically low internal saving rates, access to external financing is very important to Caribbean SIDS, especially in the context of the 2030 Agenda and the implementation of the Sustainable Development Goals (SDGs). Public financing falls short of what is needed for this task and must be complemented with private capital flows which, at 45 percent of external debt in 2020, make up the bulk of the region's external financing. The credit rating of Caribbean sovereigns, which is an assessment of their credit worthiness, therefore, plays a critical role in determining how costly is their access to private external financing. **Table 9** shows that since the 1990s there has been an increase in the number of Caribbean SIDS receiving credit ratings from one or both of the two major credit rating agencies - Standards and Poor's and Moody's - as a growing number of governments began to tap global bond markets. On 31 October 2014, Standard & Poor's removed Grenada's sovereign rating, and the number dropped to seven, which as of end-2021, was the number of rated sovereign issuers in the region. The credit quality of sovereigns in the Caribbean have been on a downward trend since the mid-1990s. Most Caribbean countries suffered downgrades following the onset of the global financial crisis in 2008, and as of mid-April 2022, most have not yet recovered their previous higher credit ratings, constrained by more adverse external conditions, fiscal deterioration, high and rising debt and, more recently, the lingering impact of the COVID-19 pandemic.

The credit quality of sovereigns in the Caribbean have been on a downward trend since the mid-1990s..

TABLE 9: CREDIT RATING HISTORY OF CARIBBEAN SIDS *(as of April 5th, 2022)*

COUNTRY	STANDARD AND POOR'S				MOODY'S			
	INITIAL RATING		LATEST RATING		INITIAL RATING		LATEST RATING	
	DATE	VALUE	DATE	VALUE	DATE	VALUE	DATE	VALUE
The Bahamas	03-Dec-03	A-	12-Nov-21	B+	24-Jan-97	A3	17-Sep-21	Ba3
Barbados	17-Dec-99	A-	13-Jan-20	B-	05-Dec-94	Ba2	03-Jul-19	Caa1
Belize	18-Aug-00	BB	09-Nov-21	B-	21-Jan-99	Ba2	24-Nov-20	Caa3
Grenada	22-Mar-02	BB-	13-Mar-13	SD	N/A			
Jamaica	09-Nov-99	B	09-Mar-22	B+	30-Mar-98	Ba3	23-Nov-21	B2
St. Vincent	N/A				10-Dec-07	B1	27-Feb-20	B3
Suriname	17-Nov-99	B-	06-Nov-20	SD	03-Feb-04	B1	07-Jul-20	Caa3
Trinidad & Tobago	14-Mar-96	BB+	27-Jul-21	BBB-	08-Feb-93	Ba2	19-Nov-21	Ba2

Source: *Bustillo et al. (2018), Trading Economics*

By 2011, there were three investment grade Caribbean SIDS – Barbados, the Bahamas and Trinidad and Tobago. Investment-grade status reduces financing costs significantly by improving market expectations and encouraging greater inflows from a broader and more diversified investor base. Investment grade status also lowers sovereign bond spreads significantly. By the end of 2021, however, there was only one investment-grade sovereign in the region – Trinidad and Tobago. Barbados' credit rating declined in several steps from loss of investment-grade status in 2012 to Selective Default in June 2018. The Bahamas lost the investment-grade rating from Standard & Poor's in December 2016 but kept a lower investment-grade from Moody's which it lost in June 2020, and Trinidad & Tobago lost the investment grade from Moody's in April 2017 but kept a lower investment grade from Standard & Poor's. At the end of June 2022, the average credit rating for the Caribbean was B- in the Standard & Poor's universe and B3 in the Moody's space (see **Table 10**). There is a negative relationship between credit ratings and the level of sovereign bond spreads. Sovereigns with better credit ratings usually have lower spreads than sovereigns with worse credit ratings.

TABLE 10: SOVEREIGN CREDIT RATING SCALE

GRADE	S&P RATING	MOODY'S RATING
Upper Investment Grade	AAA	Aaa
	AA+	Aa1
	AA	Aa2
	AA-	Aa3
	A+	A1
	A	A2
	A-	A3

GRADE	S&P RATING	MOODY'S RATING
Lower Investment Grade	BBB+	Baa1
	BBB	Baa2
	BBB-	Baa3
Non-Investment Grade	BB+	Ba1
	BB	Ba2
	BB-	Ba3
Lower Non-Investment Grade	B+	B1
	B	B2
	B-	B3
	CCC+	Caa1
	CCC	Caa2
	CCC-	Caa3
	CC	Ca
	C	C
Default	SD	
	D	

Source: *Bustillo et al. (2018)*

Climate Vulnerability and Sovereign Debt

While a growing literature has investigated the impact of climate change on economic growth and estimated the economic losses associated with extreme weather events (Bueno et al. 2008, Rasmussen 2014 and Acevedo 2016), only recently a new strand of literature has emerged that investigates the effect of climate vulnerability on the cost of sovereign debt. Kling et al. (2018), the first study to analyze the impact of climate change on the cost of sovereign capital, found that those 20 low-income countries particularly vulnerable to climate change incur a risk premium on their sovereign debt, reducing their fiscal capacity for investments in climate adaptation and resilience. Beirne and Volz (2020) present new empirical evidence on the relationship between climate vulnerability, resilience, and the sovereign cost of capital. Using a sample of 40 developed and emerging economies, econometric analysis shows that climate risks and resilience to these risks have significant effects on the cost of sovereign borrowing. In particular, higher climate risk vulnerability leads to significant rises in the cost of sovereign borrowing.

This effect of climate risk vulnerability on the cost of sovereign borrowing for Caribbean SIDS can be quantified using estimates from the model put forward in Beirne and Volz (2020). S&P credit ratings are used in this exercise because they are the credit ratings for which estimates of default spreads and country risk premium are publicly available. On average, the Caribbean Region's S&P sovereign credit rating of B- corresponds to a default spread of 763 basis points (see **Table 11**), which can be considered the base cost of sovereign debt. Climate vulnerability, as measured by the Notre-Dame Global Adaptation Initiative (ND-GAIN) sub-indices for climate sensitivity and capacity, increases the base cost of external debt, on average, by 117 basis points. This increase is a lower bound estimate since it is based on direct effects only. The impact of climate vulnerability on sovereign debt can be partially offset by investments in social and physical infrastructure, which reduces the cost of debt by 67 basis points, on average. This suggests that the estimated base cost of sovereign debt in the Caribbean is around 813 basis points, after adjusting for the impact of climate risk. In comparison, Beirne and Volz (220)

found that the cost for a sample of 46 countries, including a selection of climate vulnerable V20 countries, was higher at 1,290 basis points. Based on the analysis, climate vulnerability has cost Caribbean countries just below US$3 billion in higher external interest payments over 2011-2020. The incremental debt cost for Caribbean SIDS was more than US$350 million in 2020 alone.

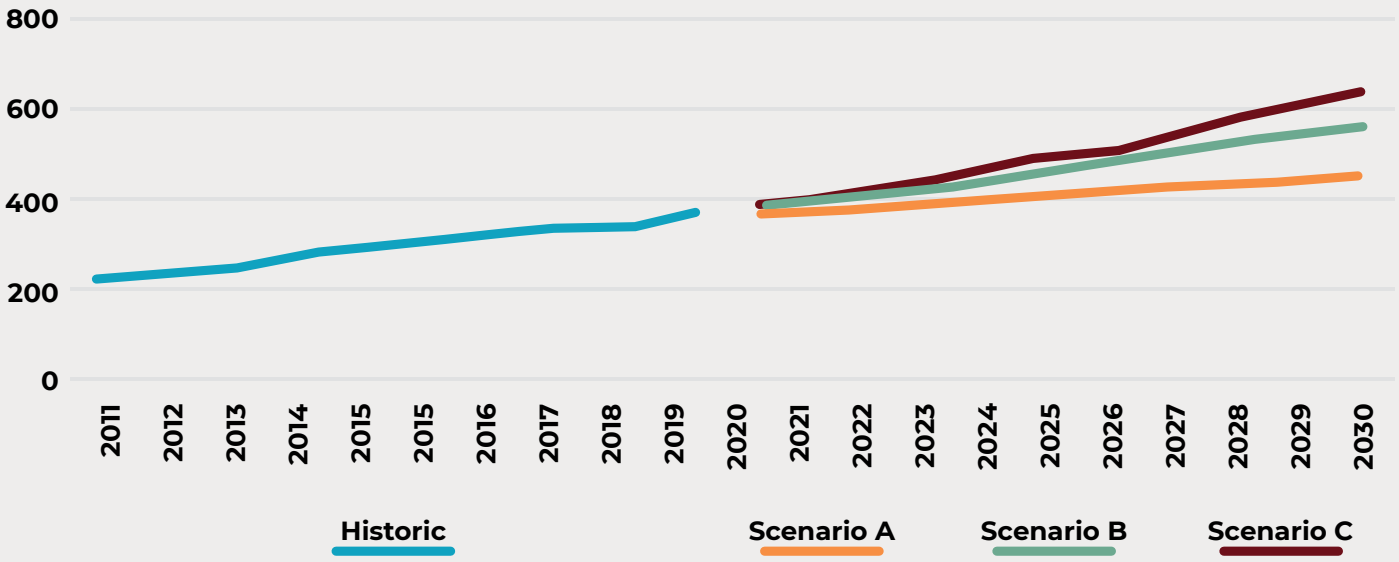
TABLE 11: COST OF SOVEREIGN DEBT IN THE S&P CREDIT RATING UNIVERSE

RATING	DEFAULT SPREAD (%)	COUNTRY PREMIUM (%)	EQUITY PREMIUM (%)
AAA	0.00	0.00	5.96
AA+	0.47	0.58	5.81
AA	0.58	0.73	5.96
AA-	0.71	0.89	6.12
A+	0.83	1.03	6.26
A	1.00	1.25	6.48
A-	1.41	1.76	6.99
BBB+	1.87	2.35	7.58
BBB	2.23	2.80	8.03
BBB-	2.58	3.23	8.46
BB+	2.93	3.67	8.90
BB	3.53	4.41	9.64
BB-	4.22	5.29	10.52
B+	5.28	6.61	11.84
B	6.46	8.09	13.32
B-	7.63	9.56	14.79
CCC+	8.80	11.02	16.25
CCC	10.57	13.23	18.46
CCC-	11.73	14.69	19.92
CC	14.08	17.63	22.86

Source: *Damodaran (2022)*

Figure 4 charts the historical increase in the cost of debt associated with climate risk for the Caribbean between 2011-2020 as well as three scenarios for how this cost might develop over the next decade, 2021-2030. The low case Scenario A uses the central forecast for real GDP growth of emerging markets and developing countries in the IMF's most recent World Economic Outlook Report. A constant marginal cost of debt associated with climate vulnerability and a stable debt to GDP ratio is also applied. Scenario B allows total indebtedness to grow 1 percent faster than GDP each year. Scenario C assumes that the interest rate risk premium associated with climate vulnerability will grow by 1 percent each year. This would be consistent with the rising frequency and severity of catastrophes, and higher volatility in fiscal revenues and expenditures as countries attempt to absorb and address changes in climate. Scenario A implies a 10-year incremental climate risk debt costs of US$4 billion for the period 2021-2030. The forecast estimates are just over US$4.5 billion for Scenario B and nearly US$5 billion for Scenario C, respectively.

FIGURE 4: FORECASTED INCREASES IN ANNUAL INTEREST COSTS DUE TO CLIMATE VULNERABILITY, 2011-2030
(US$ million)




POTENTIAL CLIMATE DISASTER RISK FINANCE AND INSURANCE (CDRFI) SOLUTIONS IN CARIBBEAN SIDS
Section 6
DEBT

Role and Emergence Of CDRFI Solutions

In the aftermath of destructive natural disasters, Caribbean governments with already limited fiscal space have little choice but to reallocate budgetary resources, engage in external borrowing or wait on donor aid to fund the large and unexpected public spending required for emergency response, economic recovery and longer term reconstruction efforts. This is partly because Ministries of Finance in Caribbean SIDS are yet to fully integrate **Climate and Disaster Risk Finance and Insurance** (CDRFI) solutions into their wider macro-fiscal frameworks to better manage climate-related shocks. Though the concept of disaster risk finance has been around for many years, the inclusion of climate change and the term CDRFI are relatively new. CDRFI builds on disaster risk finance, involving a proactive approach to financial planning that integrates climate change and disaster risks. It comprises "… financial arrangements and instruments aimed at strengthening financial resilience or providing financial protection for climate and disaster risks" (NAP Global Network & InsuResilience Global Partnership 2021). **Table 12** presents an overview of the most frequently implemented CDRFI instruments and the groups that they target. By providing mechanisms to disburse finance quickly and reliably in the event of a hazard, CDRFI provides more predictable and faster access to resources to help protect public budgets, as well as protect lives and livelihoods of people affected by climate change and disasters (Mahul et al. 2018).

Since vulnerable countries are exposed to a wide range of climate-related risks, CDRFI solutions are better able to secure financing before the shock, by combining different instruments to address hazards of different types, based on their frequency and severity. This approach called 'risk layering' enables governments to allocate cheaper sources of funds toward more frequent events and to pay for rarer events with funds obtained from more expensive sources. CDRFI instruments such as parametric insurance and catastrophe bonds provide payouts to clients on the basis of different predefined triggers and allow governments to transfer disaster risks to the markets and to rapidly access payouts in the event of a major disaster (Insuralex Report 2020). Though it is less prevalent than insurance, social protection is also a means of building climate resilience. When shock responsive or adaptive social protection (ASP) schemes are combined with CDRFI instruments, they ensure that assistance reaches affected communities as soon as possible following a disaster. As many Caribbean SIDS are revising their national climate adaptation plans in the aftermath of COP26, there is an opportunity for them to integrate CDRFI solutions into their fiscal and budgetary planning and social protection programs.

***CDRFI** provides more predictable and faster access to resources to **help protect public budgets, as well as protect lives and livelihoods of people** affected by climate change and disasters*

TABLE 12: CLIMATE AND DISASTER RISK FINANCE AND INSURANCE (CDRFI) INSTRUMENTS AND TARGET GROUPS

TARGET GROUP: NATIONAL AND SUBNATIONAL GOVERNMENTS	
Contingency Funds	Contingency funds are financial reserves, including from government budgets, that are set aside to be used in the event of a disaster.
Contingent Credit	A type of financial instrument to help governments secure funds in advance of a disaster, which not only increases financial resilience but helps incentivize better disaster risk management policies overall.
Sovereign and sub-sovereign risk transfer mechanisms (often provided through catastrophe risk pools)	These are insurance schemes that provide payouts to national or subnational governments in the event of hazards including extreme weather events. Governments are increasingly joining together to purchase insurance in "risk pools" that reduce the cost of premiums and allow them to diversify their risk profile.
Public asset insurance	This is insurance specifically to recover damages to public assets, including infrastructure.
Catastrophe bonds (sometimes referred to as "cat bonds")	This includes the socially marginalized, such as sex workers and the LGBTI community. This group is highly victimised and is increasingly vulnerable in times of economic recession.
TARGET GROUP: HOMEOWNERS AND MICRO, SMALL AND MEDIUM-SIZED ENTERPRISES (MSMES)	
Property insurance	A type of insurance that protects the owner or user of property for its loss or the loss of its income-producing ability when the loss or damage is caused by a covered hazard, such as fire or flooding.
Business interruption insurance	This type of insurance covers business income lost (and sometimes additional costs incurred) as the result of business interruption due to a disaster, including climate-related events.
TARGET GROUP: AGRICULTURAL ACTORS	
Agricultural insurance	Insurance products that aim to protect farmers and those employed in agriculture from crop and livestock losses associated with weather and agricultural risks. This includes weather index-based insurance at the individual level that provides payouts based on indicators such as the amount of rainfall or the length of a dry period. This micro insurance complements the parametric insurance instruments at the sovereign level.
TARGET GROUP: VULNERABLE HOUSEHOLDS AND INDIVIDUALS	
Social protection systems (adaptive/shock-responsive)	Social protection programs include safety nets and other forms of assistance that are targeted to the poorest households to address income gaps and fluctuations and acute financial needs. 'Shock-responsive' or 'adaptive' social protection is designed to respond and/or build resilience to covariate shocks, including extreme weather events.

Source: *NAP Global Network & InsuResilience Global Partnership (2021)*

Over the last twenty years, the use of CDRFI has increased in the area of insuring against extreme weather risks in the Caribbean, Latin and Central America (Insuralex Report 2020). In the agricultural sector, for example, CDRFI plays a key role that affords small-scale farmers a financial safety net, especially those facing risks associated with climate change (Akter et al. 2016; Born et al. 2019). Some examples of CDRFI solutions for small-scale farmers in developing countries include the Indian National Insurance Programme (30 million farmers), the East African Agriculture and Climate Risk Enterprise (200k farmers), the R4 Rural Resilience Initiative in Ethiopia, Senegal, Malawi, and Zambia (40k small-scale farmers), the Mongolia Index-Based Livestock Insurance Project (15k herders) and the Kenya/Ethiopia Index-Based Livestock Insurance.

The impact value of CDRFI in developing countries has been documented at the individual, regional, national and institutional level (Prabhakar et al. 2010; Gine et al. 2013; Carter et al. 2014; Delavallade et al. 2015; and Born et al. 2019). The value of CDRFI to provide financing and compensation to climate related disasters has been explored in the literature (Barnett and Mahul 2007; Collier et al. 2009; Victor et al. 2009; and Carter et al. 2014) and the emerging consensus is that CDRFI can be an effective mechanism for transferring risk, catalyzing investment and, in turn, supporting economic growth. According to multilateral institutions, access to CDRFI could improve the ability of stakeholders, including vulnerable populations in lower-income countries, to adapt to climate change (Collier et al. 2009). CDRFI solutions provide donors with an opportunity to invest in approaches that transform the current humanitarian model, which is focused on repetitive crisis response, and move it to a model which is based on forward-looking and anticipatory risk management (World Food Program 2019).

CDRFI Instruments for Governments

CDRFI instruments arranged in advance can help governments respond to different types of disasters in a timely manner and ensure funds are available when they are needed for response, recovery and reconstruction. Several instruments could be used for this purpose, such as budget reserves/contingency funds and contingent lines of credit, as well as risk transfer instruments like insurance and capital market instruments. Comprehensive risk-sharing arrangements for the private sector could be also put in place to reduce government's contingent liabilities. Different instruments are best used when combined, since no single instrument can address all risks. Insurance can be a source of funding, for example, for large disasters providing support to government budgets, households, farmers, and businesses up to a certain limit. These instruments are reviewed below.

Contingency Reserves

Contingency reserve funds are used by governments to keep some resources immediately available for uncertain needs. They are most effective for financing the lower layer of disaster costs because they come with an opportunity cost that increases with the amount of funding that is idle. The size of the reserves depends on the government's risk appetite, capacity to quickly mobilize other funding sources after a disaster, and level of disaster risk.
There are generally two options to structure a disaster fund:

- On-budget fund. This is a regular budget account (a contingency line) managed by a designated agency, usually lapsing at the end of the fiscal year and usually not allowing investment of idle resources.

- Off-budget (extra-budgetary) fund. This is an accruing off-budget account (or a separate legal entity) usually run by a designated fund management structure and governed by a board. Although more flexible and usually larger in size than an on-budget fund, it should be carefully designed against misuse. Dominica used its off-budget fund - the Citizenship by Investment Program (CBI) - to partly finance its recovery needs in the aftermath of Hurricane Maria. The CBI is a program whereby foreigners may obtain citizenship through either a cash contribution of US$100,000 or investment of US$200,000 in a pre-selected real estate project, and was not intended to be used as disaster fund. **Box 5** provides an example of FONDEN, Mexico's off-budget reserve fund for natural disasters, which although discontinued in 2021, still provides some useful lessons to Caribbean SIDS interested in structuring a disaster fund.

BOX 5: FONDEN: MEXICO'S TRUST FOR NATURAL DISASTERS

FONDEN, Mexico's Trust Fund for Natural Disasters, was established as a mechanism to support the rapid rehabilitation of federal and state infrastructure affected by adverse natural events. FONDEN was established in BANOBRAS, Mexico's state-owned development bank. Funds from FONDEN can be used for the rehabilitation and reconstruction of (i) public infrastructure at the three levels of government (federal, state, and municipal); (ii) low-income housing; and (iii) certain components of the natural environment (e.g., forestry, protected natural areas, rivers, and lagoons).

FONDEN is funded through the federal budget and market-based risk transfer mechanisms, including insurance and catastrophe bonds. The federal law requires that an amount of no less than 0.4 percent of the annual federal budget should be available. In case the fund is exhausted, the law stipulates that additional resources must be transferred from other programs and funds.

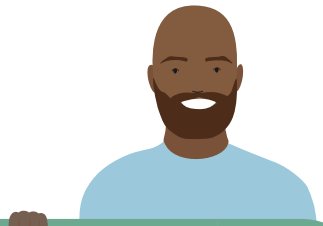
FONDEN is activated with the declaration of emergency. Once this declaration has been made, the federal agencies and/or state government(s) can apply for funding and the damage assessment process can begin. The affected federal and state agencies must demonstrate that the magnitude of reconstruction needs exceeds their financial capacity and file specific requests detailing the extent of the damage and estimated cost of reconstruction. Based on this, the appropriations can be approved.

FONDEN provides funds directly to service providers in benefit of housing reconstruction and population support, response activities, and reconstruction of public assets. For public assets, FONDEN resources finance 100 percent of the reconstruction costs for federal assets and 50 percent of those for local assets; however, the second requests for FONDEN's support are reduced to 50 and 25 percent respectively. For private housing, during response, FONDEN can provide funds directly to the private companies contracted to, for instance, clean debris and allow for immediate occupation of the affected property. For reconstruction, FONDEN can provide construction materials and tools to poor house owners, with some funds allocated to pay for labor and specialized advisory services, acquire lands, or construct new housing, but this support is limited to low-income households.

Contingent Credit Lines

Caribbean SIDS have made limited use of contingent credit arrangements linked to natural disasters. Contingent financing takes the form of ex ante loan agreements designed to give countries access to critical liquidity at prearranged borrowing rates immediately following an exogenous shock or disaster. These loans are typically offered by multilateral development banks including the World Bank and the Inter- American Development Bank. The terms of the loan require the borrower to set out the specific triggers or thresholds used to define the shock event and the loan amount(s) or facility to be made available. For instance, in April 2021, the government of St. Vincent and the Grenadines received US$20 million in disaster risk financing from the World Bank, after the eruption of the La Soufrière volcano triggered a catastrophe contingent line of credit. The explosive eruption required the evacuation of 20,000 people from the high-risk zones around the volcano and surrounding countries.

The funds were disbursed from a Catastrophe Deferred Drawdown Option (CAT-DDO) which is a risk financing instrument that is designed to provide immediate liquidity to support a country's efforts to recover from natural disasters or a public health emergency (see **Box 6**). While similar to an insurance or reinsurance policy, or a catastrophe bond, CAT-DDOs differ as once triggered the contingent financing facility opens up a loan, or line of credit to the World Bank, that does not have to be repaid, albeit at attractive terms.



BOX 6: WORLD BANK'S CATASTROPHE DEFERRED DRAWDOWN OPTION (THE CAT DDO)

Developed in 2008, the World Bank's Catastrophe Deferred Drawdown Option, the CAT-DDO, provides much needed liquidity at the point of a natural or health-related disaster, making these instruments akin to catastrophe bonds, in how they secure a line of catastrophe contingent funding, but in a repayable form, rather than insurance or reinsurance. A CAT DDO offers the government access to immediate liquidity through an active but undisbursed line of credit, with a country limit of 0.25 percent of GDP or US$500 million, whichever is less.

How it works:

1. **Prior to Board approval, policy-based prior actions are completed, and a trigger is agreed upon.**
2. **The CAT-DDO is approved and becomes effective, but the client does not immediately draw on funds.**
3. **A disaster event occurs.**
4. **The CAT-DDO is triggered as defined (e.g., declaration of state of emergency).**
5. **Any portion of the funds can be withdrawn, and funds are generally received within 72 hours.**

CAT-DDOs also incentivize proactive steps to reduce risk: in order to be eligible, governments must demonstrate capacity to manage the risks by strengthening the policy and financing framework for disaster risk management.

Since the introduction of the instrument, the World Bank has approved 17 CAT-DDOs for a total value of US$2.4 billion. In response to the recent COVID-19 crisis, CAT-DDOs have been triggered in nine countries. CAT DDOs are funded from the World Bank's current country portfolio. Other development institutions can offer similar arrangements.

Source: *World Bank (2022)*

Risk Transfer: Insurance

Market-based instruments allow government to transfer the risk of specific meteorological or geological events (droughts, hurricanes, earthquakes, and floods) to actors in the market (insurance companies, reinsurance companies, banks, and investors) who are willing to accept them, or transfers the risk through regional risk pools. For natural disasters, insurance instruments are most effective for protecting against large-magnitude but not too unlikely extreme events. For example, insurance can be offered to governments in the form of sovereign insurance, which provides rapid budget support and even humanitarian support as in Africa, or it can be purchased by government entities for specific assets or infrastructure. Insurance can also be offered to homeowners, farmers, or businesses through catastrophe insurance (named or multi-peril).

Insurance can be used to cover disasters of different frequency and severity, but not all events are cost-effectively covered by insurance. Such products use scientific data and actuarial modeling to establish a cost (or premium) in return for a certain level of insurance coverage. As with most insurance models, there is a trade-off between the cost of premiums and the frequency or scale of payout. For instance, if events are too frequent, the price for accepting such risks could be too high, while insurers might be unwilling to cover their consequences (a rare and devastating event can cause insolvency). The decision on the size of risk to cover with insurance is driven by price, business (solvency), and political considerations (for instance, what assets to cover and whether to purchase insurance or self-insure).

The catastrophe protection gap (i.e., the difference between insured and total losses) is significant in the Caribbean. In Dominica, for example, Hurricane Maria affected almost every household and economic sector, most of which were insufficiently insured except for housing with mortgages, about 30 percent of the housing stock. The region currently has CCRIF, formerly known as the Caribbean Catastrophe Risk Insurance Facility, which can provide some budget support after severe natural disasters. Public asset insurance is available (although limited) to cover replacement value for damages caused by different types of natural disasters. Most policies cover earthquake and one other peril. Crop insurance is generally not available which makes farmers particularly vulnerable to natural disasters.

Sovereign Risk Insurance and Regional Insurance Pool: CCRIF

Perhaps the most well-known types of sovereign risk transfer for natural hazards and climate risk are the four sovereign catastrophe risk insurance pools - CCRIF, which is by far the biggest, the Pacific Catastrophe Risk Insurance Company (PCRIC), the African Risk Capacity (ARC), and the South-East Asia Disaster Risk Insurance Facility (SEADRIF). They provide their members with affordable parametric insurance solutions against disasters and climate shocks. Parametric insurance is generally less expensive than an equivalent traditional indemnity insurance product, as it does not require a loss assessment procedure after a disaster, allowing for claims to be settled quickly. Parametric insurance products are a key component in a country's disaster risk financing strategy and are designed to pre-finance short-term liquidity helping to close the protection gap, reduce budget volatility and allow countries to respond to their most pressing post-disaster needs.

CCRIF is a segregated portfolio company owned by the CCRIF special purpose trust whose beneficiaries are 23 members, comprising 19 Caribbean governments, three Central American governments and one Caribbean electric utility company. CCRIF acts as a risk aggregator by enabling participating countries to pool their country specific risks into one, better-diversified portfolio. This diversification should result in a substantial reduction in premium cost of 45–50 percent. Claims payments are based on parametric triggers, which means they are index-based insurance instruments that pay claims based on the occurrence of a predefined event, (such as hurricanes, earthquakes, flooding) rather than on an assessment of actual losses on the ground, and in the case of CCRIF, payments are made within 14 days of the event. This measurement, made remotely by an independent agency, allows for transparent, low-settlement costs and quick-disbursing contracts. CCRIF currently offers parametric insurance products for earthquakes, tropical cyclones and excess rainfall insurance products and for the fisheries and electric utilities sectors. These insurance products are not readily available in traditional insurance markets.

TABLE 13: CCRIF MEMBER COUNTRIES AND PAYOUTS, 2007 – 2021

NO.	COUNTRY	EVENT	DATE	PAYOUT (US$)
1	Anguilla	Tropical Cyclone	August 2010	$4,282,733
		Excess Rainfall	October 2014	$493,465
		Excess Rainfall	November 2014	$559,249
		Tropical Cyclone	September 2017	$6,529,100
		Excess Rainfall	September 2017	$158,823
2	Antigua & Barbuda	Tropical Cyclone	September 2017	$6,794,875
3	Bahamas	Excess Rainfall	September 2017	$163,598
		Tropical Cyclone	September 2019	$11,527,002
		Excess Rainfall	September 2019	$1,297,002
4	Barbados	Tropical Cyclone	October 2010	$8,560,247
		Excess Rainfall	November 2014	$1,284,882
		Tropical Cyclone	September 2016	$975,000
		Excess Rainfall	October 2016	$753,277
		Excess Rainfall	September 2017	$1,917,506
		Excess Rainfall	October 2018	$5,813,299
		Excess Rainfall	July 2021	$1,124,424
		Tropical Cyclone	July 2021	$1,345,500
5	Belize	Excess Rainfall	August 2016	$261,073
		Excess Rainfall	May/June 2020	$203,136
6	Dominica	Earthquake	November 2007	$528,021
		Excess Rainfall	August 2015	$2,402,153
		Tropical Cyclone	September 2017	$19,294,800
		Excess Rainfall	September 2017	$1,054,022
7	Guatemala	Excess Rainfall	May/June 2020	$3,628,013
8	Haiti	Earthquake	January 2010	US$7,753,579
		Tropical Cyclone	October 2016	US$20,388,067
		Excess Rainfall	October 2016	$3,020,767
		Excess Rainfall	August 2020	$7,163,958
		Earthquake	August 2021	$39,953,272
9	Jamaica	Excess Rainfall	October/November 2020	$3,500,000
		Earthquake	June 2016	$500,000

TABLE 13: CCRIF MEMBER COUNTRIES AND PAYOUTS, 2007 – 2021 *(cont'd)*

NO.	COUNTRY	EVENT	DATE	PAYOUT (US$)
10	Nicaragua	Tropical Cyclone	November 2020	$7,793,524
		Excess Rainfall	November 2020	$2,956,021
		Tropical Cyclone	November 2020	$19,9891,162
11	Panama	Excess Rainfall	November 2020	$2,670,556
12	St. Kitts & Nevis	Excess Rainfall	November 2014	$1,055,408
		Tropical Cyclone	September 2017	$2,924,603
13	Saint Lucia	Earthquake	November 2007	$418,976
		Tropical Cyclone	October 2010	$3,241,613
		Excess Rainfall	October 2016	$3,781,788
		Excess Rainfall	September 2017	$671,031
14	St. Vincent & the Grenadines	Tropical Cyclone	October 2010	$1,090,388
		Tropical Cyclone	September 2016	$285,349
		Excess Rainfall	September 2017	$247,257
15	Trinidad & Tobago	Excess Rainfall	October 2017	$7,007,886
		Excess Rainfall	October 2018	$2,534,550
		Excess Rainfall	October 2019	$362,982
		Excess Rainfall	September 2020	$176,146
		Excess Rainfall	August 2021	$2,381,464
16	Turks & Caicos Islands	Tropical Cyclone	September 2008	$6,303,913
		Tropical Cyclone	September 2017	$13,631,865
		Excess Rainfall	September 2017	$1,232,769
		Tropical Cyclone	September 2017	$419,372
Total for Tropical Cyclone			**$135,474,106**	
Total for Earthquake			**$49,153,848**	
Total for Excess Rainfall			**$60,161,835**	
Total for TC/EQ Aggregated Deductible Cover (ADC)			**$2,606,183**	

Source: *Extracted from CCRIF Annual Reports 2018-2019; 2019-2020; 2020-2021*

Insured countries pay an annual premium commensurate with their own specific risk exposure. Parametric insurance products are priced for each country based on their individual risk profile. Annual premiums typically vary from US$200,000 to US$4 million, for coverage ranging from US$10 million to US$50 million. Between June 2007- August 2021, CCRIF had made total payouts of US$245 million, including more than US$50 million during the 2017 active hurricane season (CCRIF Strategic Plan 2018-2021;

CCRIF Annual Report 2020-2021) (see Table 13). The latest payout, US$2.3 million made to Trinidad and Tobago, was triggered by excess rainfall in August 2021. When disaggregated by disaster event type, tropical cyclones, excess rainfall and earthquakes represent 70 percent, 24 percent and 6 percent, respectively, of total payouts.

The bulk of CCRIF's payouts between 2017-2021, about 63 percent, was used to fund immediate post-event activities. Another 19 percent of total payouts were used to fund critical public infrastructure, while seven percent provided support to economic sectors such as agriculture and six percent represented unallocated contributions to the national budgets of member country governments. About three percent of total payouts went to finance risk mitigation activities to reduce vulnerability to future natural hazard events and the remaining two percent was used to capitalize a recovery fund (CCRIF Annual Report 2020-2021).

CCRIF's involvement with micro insurance is primarily through the Climate Risk Insurance and Adaptation in the Caribbean (CRAIC) project. The project was designed to address climate change, adaptation, and vulnerability by promoting parametric insurance for individuals as a disaster risk management instrument in the Caribbean. In order to reach this population, CCRIF began to roll-out the first phase (2011-2014) of the CRAIC project in three pilot countries - Jamaica, Grenada and Saint Lucia - with the Livelihood Protection Policy (LPP), the project's signature micro insurance product.

The fundamentals of LLP are as follows:

FUNDAMENTALS OF LLP

- Provides coverage for physical assets or livelihoods in the event of a weather hazard;
- Provides insurance coverage for vulnerable persons such as farmers and tourism workers against extreme weather;
- Is triggered based on the values of wind speeds and rainfall levels;
- The trigger values are based on actual weather conditions in various areas and are different for policyholders depending on where they live;
- Insurance payout amount is calculated as a percentage of the amount of coverage that was purchased - the more extreme the event, the larger the payout.
- Premium costs are ~13% of the maximum policy payout;
- Premiums can be paid weekly, monthly or annually;
- In Saint Lucia, an annual premium of US$48 will provide coverage up to US$370 per unit, the lowest level of coverage offered. In Jamaica, an annual premium of US$53 will provide coverage up to US$400 per unit;
- The maximum coverage available on a policy is US$4,000. However, individuals can purchase more than one policy.

Phase two of the CRAIC project (2016-2019) was expanded to include Belize and Trinidad and Tobago, while deepening and refining efforts in the initial pilot countries. CCRIF is also developing parametric insurance models for other perils and economic sectors such as fisheries, agricultural drought, rainfall runoff and public housing stock.

Although CCRIF is considered to be successful, specifically in its efficiency, fairness, and attentiveness to the needs of the Caribbean region (Carter et al. 2014; Prabhakar 2013), there are views that its insurance payouts are inaccurate and to address this a more grassroots solutions requiring input and participation of the Caribbean people is needed (Brooks 2011). Nonetheless, CCRIF has demonstrated that sovereign catastrophe risk insurance can effectively provide a level of financial protection for Caribbean SIDS which are highly vulnerable to natural disasters, but it also demonstrates that no country can fully insulate itself against losses from catastrophic damage. For example, in the aftermath of Hurricane Maria, Dominica received about US$20 million in payout from CCRIF. However, estimates of the Dominica's reconstruction costs were in the order of over US$1 billion. This is where CCRIF's insurance products need to be supplemented with disaster-related financial instruments which are available in the larger and deeper capital markets.

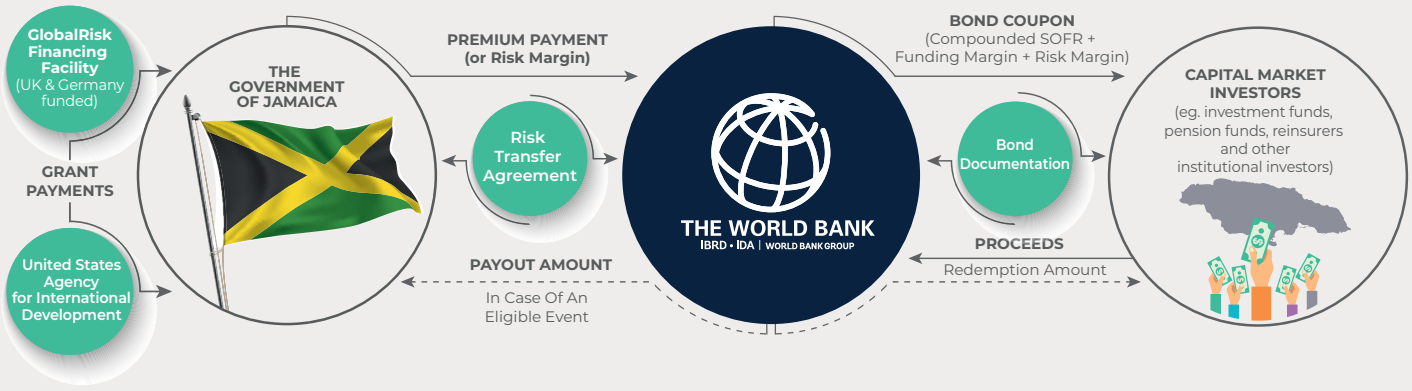
Risk Transfer: Catastrophe Bonds and Capital Markets

A number of disaster-related financial instruments are available in capital markets. These include weather derivatives, catastrophe swaps and catastrophe (CAT) bonds. Weather derivatives are index-based instruments that pay out when a specific weather-related threshold is reached. Unlike insurance, which covers rare catastrophic weather events, weather derivatives cover more common events, such as hot or cold spells. Weather derivative indexes are usually based on observed weather data at a weather station (temperature, snowfall, rainfall, etc.). Catastrophe swaps can be executed between two counterparties with exposure to different types of catastrophe risk. The main objective is to diversify a portfolio and therefore minimize risk concentrations. An example of a catastrophe swap is the US$206 million catastrophe swap for the Philippines which the World Bank arranged in 2017 as a protection against losses from major typhoons and earthquakes.

A catastrophe (CAT) bond refers to an instrument issued by insurance and reinsurance companies to transfer the risk associated with a catastrophic event to the capital markets and the ensuing funds it raises do not count against a country's debt ceiling. A CAT bond is a high-yielding debt instrument which offers relatively attractive returns compared to other fixed income securities. However, if an insured event such as an earthquake or a flood occurs and triggers a payment to the bond issuer; investors are expected to absorb significant write-downs on the principal of the bond. In addition, because losses on CAT bonds are not correlated with other capital market instruments, they offer portfolio diversification for large investors. The CAT bond price is composed of a risk-free base rate and the spread, which represents only the insurance risk and not the credit risk of the issuer. The spread varies depending on the probability of the natural disaster occurrence. The market for CAT bonds has experienced significant growth in recent years, reaching US$37.5 billion at the end of March 2022 (Artemis 2022).

In the Caribbean, the first CAT bond was issued through CCRIF in collaboration with the World Bank in 2014. The US$30 million CAT bond provided three years of annual aggregate protection for hurricanes and earthquakes affecting 16 CCRIF member countries and used the same triggers and measurements as the CCRIF's underlying parametric insurance model (CCRIF 2014). In 2021, Jamaica became the first Caribbean country to independently sponsor a CAT bond with the support of the World Bank (see **Figure 5** below) and the first small island state to access the global catastrophe bond market. Jamaica stands to benefit from up to US$185 million in natural disaster insurance coverage against losses from named tropical storms across three Atlantic hurricane seasons ending in December 2023. The Caribbean Development Bank has signaled its intentions to incorporate CAT bonds as a measure for disaster risk financing to support regional economies (Artemis 2022).

FIGURE 5: TRANSACTION STRUCTURE FOR JAMAICA'S CAT BOND



Source: *Financial Protection Forum (2021)*

Case Study: Dominica - Expanding Climate Disaster Risk Financing Insurance (CDRFI) Options

Dominica, like many other SIDS, is particularly vulnerable to the effects of natural hazards such as hurricanes and tropical storms, floods, landslides, earthquakes and volcanic activity. These disasters have not only impacted on the country's physical environment, but they have exposed Dominica's socio-economic vulnerability, as they disrupted the country's economic growth and inflicted hardships on the population. **Table 14** shows the impact of major climatic shocks which hit Dominica between 1979-2017. The most devastating climatic shock was Hurricane Maria, a strong Category 5 Hurricane which resulted in significant damage and losses impacting 100 percent of the population and every sector of the economy. Hurricane Maria resulted in US$1.313 billion in damages and losses, equivalent of 226 percent of Dominica's GDP. The recovery and reconstruction needs are valued at US $1.37 billion.

TABLE 14: DOMINICA: IMPACT OF MAJOR CLIMATIC SHOCKS, 1979-2017

COUNTRY	IMPACT				
	DEATHS	DAMAGES	% BUILDING	% CROPS	% GDP
Hurricane David (1979)	56	US$ 21.6 million	50	75	20
Hurricane Hugo (1989)	1	US$ 7.4 million	N/A	N/A	N/A
Hurricane Lenny (1999)	0	US$ 7.9 million	50 homes	N/Aw	N/A
Tropical Erika (2015)	11	US$ 0.4 billion	11	10	90
Hurricane Maria (2017)	65	US$ 1.3 billion	90	80-100	226

Source: *Dominica's CRRP 2020 - 2030*

While CCRIF has provided roughly USD$20 million in payouts to Dominica to date (see Table 15 below), the financing gap for post climate-related disasters is stark. Tropical Storm Erika (2015) and Hurricane Maria (2017) caused combined damages of USD$ 1.78 billion or 316 percent of GDP.

TABLE 15: CCRIF PAYOUTS TO DOMINICA, 2007 – 2021

COUNTRY	EVENT	DATE	PAYOUT (US$)
Dominica	Earthquake	November 2007	$528,021
	Excess Rainfall	August 2015	$2,402,153
	Tropical Cyclone	September 2017	$19,294,800
	Excess Rainfall	September 2017	$1,054,022

Source: *Extracted from CCRIF Annual Reports 2018-2019; 2019-2020; 2020-2021*

According to Dominica's Climate Resilience Recovery Plan (CRRP), the country aims to become the world's first climate resilient nation. Its focus is on "Build Back Better" with resilience and sustainability at the core of the recovery plan. Based on

Dominica's CRRP, fundamental aspects of achieving climate resilience include the following: swift and cost effective recovery from climate-related disasters; reconstruction or restoration of physical and other infrastructure damaged or destroyed during a climate related disaster to a state that is better than its state before the occurrence of that disaster; and identifying and reducing critical gaps in post disaster funding (see **Table 16** below for more details).

TABLE 16: DOMINICA'S CRRP GOALS AND TARGETS

GOALS	2030 TARGET
G1 - Reduce economic loss from disasters	<5% of GDP in national losses / cost damage <50% Agriculture / fisheries losses as a % of total losses
G2 - Enhance government capacity to respond and quickly recover economic infrastructure	100% functioning of all emergency services during and after events Ports and airports functioning within one week
G1 - Reduce economic loss from disasters	Sustained, sustainable, and inclusive of minimum 5% achieved.

Source: *Extracted from Dominica's CRRP 2020 -2030*

In order to achieve these ambitious but laudable goals, Dominica may wish to consider (if it has not done so) expanding its menu of CDRFI options to include a CAT bond as CCRIF's insurance coverage cannot fully cover the extensive damages from extreme climate-related events. For Dominica, in the face of more abnormal climatic events, a tailored CAT bond, whether facilitated through CCRIF or in partnership with donors and development institutions like the World Bank, could assist in achieving the country's goals and targets as set out in the CRRP 2020-2030. As Jamaica did, a CAT bond could help Dominica benefit from an increased financial resilience against severe tropical cyclones without increasing sovereign debt, provide access to quick disbursing and cost-effective insurance from the capital markets and optimize the country's insurance cover with limited funding.

Applying a CDRFI Approach to Adaptive Social Protection (ASP) Programs

The incidence and impact of climatic disasters and extreme weather events in the Caribbean have been increasing over recent decades and it is widely accepted that climatic disasters are likely to further increase with climate change. As is the case with all disasters, poor countries and poor people will be least able to cope. Experience has shown that poor and marginalized populations are often highly exposed and vulnerable to disasters. The poor often live and rely on land subject to recurrent chronic disasters such as floods and droughts, which slowly erode their livelihood and incomes. Moreover, the poor lose far more proportionately when hit by a disaster.

As disasters become more severe and frequent and as the COVID-19 crisis took hold, governments and donors have been reminded of the value of having more shock-responsive or adaptive social protection (ASP) programs that are capable of reaching affected communities and households with immediate assistance (Bowen et al. 2020). Adaptive social protection

directly supports the capacity of the poorest and most vulnerable households to prepare for, cope with, and adapt to the often multiple shocks they face. In Pakistan, where the population needed temporary support following the 2005 earthquake and the 2010 floods, the flagship cash transfer program (Benazir Income Support Programme, or BISP) proved to be an ideal conduit for providing aid (O'Brien et al. 2018). Ethiopia's Productive Safety Net Program (PSNP) has effectively replaced annual emergency assistance to millions (World Bank 2013) while the Sahel Adaptive Social Protection Program which started in 2014 retains the ability to expand temporary assistance to wider populations in bad drought years. By the end of April 2020, as many as 133 countries had planned, introduced, or adjusted social protection programs in response to the COVID-19 pandemic (Bowen et al. 2020).

ASP programs might be an efficient way to scale up humanitarian support during or after a crisis and the CDRFI approach is making good progress with regard to building resilience to climatic shocks, however, it is not immediately clear that there is value added in taking a disaster risk financing approach to adaptive social protection. Nonetheless, the same thinking can be applied to other shocks that create unexpected funding liabilities for governments such as a sudden influx of refugees or a major hike in staple food prices. The World Bank, through its Disaster Risk Financing and Insurance Program (DRFIP), has identified four disaster risk financing (DRF) principles to support better financial decisions in relation to disasters.

These principles, which can be applied to a CDRFI approach, are as follows:

vi. **DATA AND ANALYTICS.** Under a DRF approach, governments need to collect and analyse the right information in order to make sound financial decisions.
vii. **TIMELINESS OF FUNDING.** Speed matters but not all resources are needed at once. A DRF approach advocates for the necessary resources to respond immediately and effectively at the onset of a disaster, or even before.
viii. **DISASTER RISK LAYERING.** No single financial instrument can address funding needs for all disaster risks. DRF encourages governments to match the combination of financial instruments with the frequency and severity of expected disaster events and funding.
ix. **DISBURSEMENT OF FUNDS.** How money reaches intended beneficiaries is as important as where it comes from. Governments required dedicated mechanisms and expertise to effectively allocate, disburse, and monitor recovery and reconstruction funds.

The CDRFI approach solves a major problem of adaptive social protection, that is, the problem of quick disbursement. In many cases, after the crisis has hit, the government's response is delayed because it has to conduct a needs assessment to verify and quantify how populations have been affected, and it has to appeal for funding to meet the identified needs. Applying the principles of CDRFI to ASP programs not only helps to reduce the need for additional funds, but also helps to ensure assistance is provided *as soon as possible* following a shock, or, in the case of slow-onset disasters such as drought, before communities are severely affected (Calcutt 2021). Caribbean governments can, therefore, move from a "wait and see" approach reliant on post-disaster assessments and appeal processes toward becoming proactive risk managers, with risk management and financing plans that are rapidly acted upon. This would enable Caribbean governments to move away from the current dominant reliance on traditional donor/humanitarian support financed with funds raised after an event and towards a preplanned national response system, helping to reduce the need for additional debt financing.

There are multiple benefits to responding early to shocks and disasters. An ASP system that provides timely assistance to households can greatly increase the impact and effectiveness of the crisis response, directly ensuring welfare gains in food security and child nutrition. A study on African insurance mechanisms (Clarke and Vargas Hill 2013) suggested the cost of drought to a household can increase from US$0 to US$50 if support is delayed by four months and could increase up to US$1,300 if delayed six to nine months. Speedy assistance also preempts households from relying on negative coping strategies, such as the sale of productive assets, which can push them further into poverty. After Tropical Cyclone Winston hit Fiji in 2016, the government used its Government-to-Person (G2P) payment program to disburse US$10 million in emergency relief to households within four weeks of the extensive damages caused by the cyclone on the island. An impact evaluation (Mansur et al. 2018) found that, after three months, assisted Fijian households had recovered to pre-crisis levels and were far less affected than households who had not been reached. These benefits reduce the overall costs of humanitarian response and ensure that scarce government

and donor resources are not diverted from basic public services. A study on the economics of early response and resilience (Cabot Venton et al. 2012) in Ethiopia found that a late humanitarian response costs approximately seven times that of an early response. A more recent USAID study (Cabot Venton 2018) found that donors could save 30 percent on humanitarian aid spending if investment was provided earlier via ASP systems such as Ethiopia's PSNP.

There are three emerging lessons for Caribbean SIDS in terms of applying a CDRFI approach to ASP systems that face recurrent shocks, such as those arising from natural hazard events. These lessons are as follows:

i. **Understand the potential cost of response before the disaster.** This lesson underscores a key DRF principle – most shocks are predictable, and their likelihood and impact can be quantified. Without a clear understanding of cost of responding to disasters, it is impossible for Caribbean governments to assess whether ASP system is financially feasible or to determine the most appropriate way to trigger and finance a response. In this regard, it is critical to assess ex-ante the potential costs of an ASP system, so that policy makers and politicians can make informed decisions about response and scaling before and not during the crisis. This allows Caribbean governments to make important decisions about when, how much, and to whom to make payments.

ii. **Pre-plan the funding required to ensure timely response.** Once Caribbean governments have clear picture of the potential costs of responding to a shock via an ASP system, they are better placed to examine their risk financing options. The second key DRF principle is that funding can be pre-planned to ensure funds are available when they are most needed. There are two key issues here:

> **TIMELINESS:** Given the importance of speed of response, instruments should be in place before any crisis or disaster (ex-ante) to release the right level of funding when it is required, avoiding the need for Caribbean governments to agree on and arrange finance during a crisis.
>
> **RISK LAYERING:** Since no single financial instrument can cover all levels of response, risk layering helps to meet disaster costs in a timely and efficient manner. Depending on the frequency and severity of risk, Caribbean governments can use a combination of these three instrument types (budgetary instruments, contingent financing, market-based instruments) to develop a risk layering plan that ensures funds are available for response to both less and more severe disasters. A good example is offered by Malawi, whose risk layering plan for its social program is described in **Box 7**. Similar risk financing plans have been developed in Afghanistan, Kenya, Senegal, and Uganda.

iii. **Put effective delivery mechanisms systems in place.** Understanding the cost of disaster response and putting the financing in place to promptly disburse social assistance is of limited benefit if the assistance cannot be efficiently channelled to disaster-affected populations. Hence the third key lesson is the need to develop effective delivery mechanisms to distribute assistance quickly and efficiently to intended beneficiaries when a shock response is triggered. Payment systems are critical here. The coverage of mobile and digital money systems is expanding rapidly in many low- and middle-income countries, and ASP systems that use these to transfer both regular and emergency payments are able to disburse cash faster, more efficiently and with greater accountability than those using manual systems. In Kenya, for example, mobile money services enabled insurance companies to make payouts directly to beneficiaries less than a month after a severe drought triggered a US$2.1 million pay-out from a national livestock insurance program in February 2017 (Calcutt 2021). In addition to speed, such mobile and digital money systems offer security and flexibility and have proven very robust even in the face of widespread physical destruction. FinTech and InsurTech may hold significant potential to be adopted by both government assistance programs and disaster risk insurance providers.

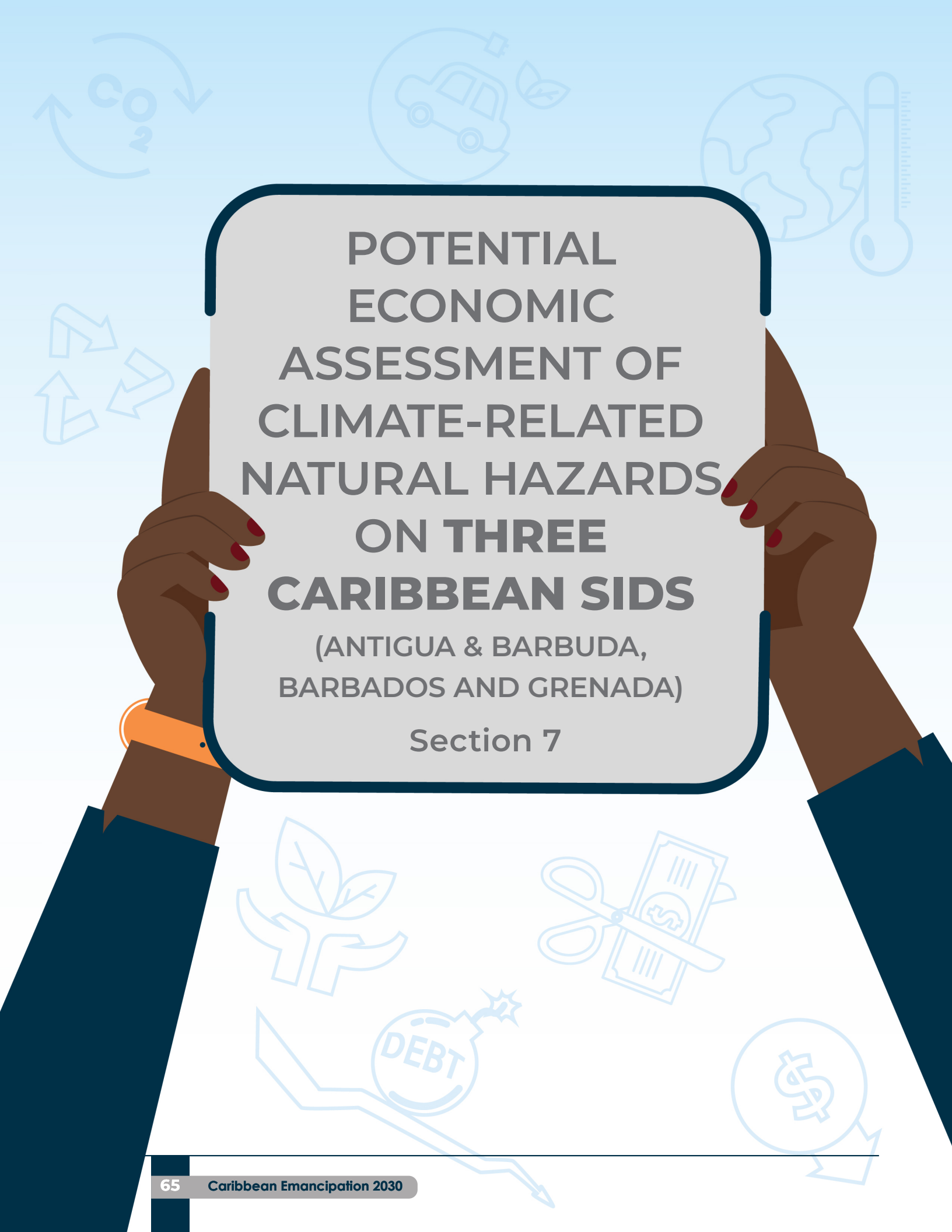
BOX 7: USE OF RISK LAYERING IN ADAPTING MALAWI'S SOCIAL PROTECTION PROGRAM

The Government of Malawi is developing a mechanism to scale up its Social Cash Transfer Program (SCTP) in response to weather-related shocks. This will include setting up ex ante financial instruments to cover the costs of scaling up the program for defined events. With support from the World Bank's Social Support for Resilient Livelihoods Project (SSRLP), the Government of Malawi is developing the following instruments:

- **CONTINGENT FINANCING INSTRUMENT. This instrument will provide the first layer of financing, in particular for small/ medium scale-ups in response to localized shocks. Payouts will be informed by a primary hard trigger (remotely sensed drought indexes) and secondary soft trigger (IPC or similar) used to capture the impact of pre-agreed disasters.**

- **RISK TRANSFER INSTRUMENT. Insurance will be purchased to cover disaster risk associated with large-scale, infrequent events. Insurance payouts will be linked to conditions in districts covered by the scalability operations manual based on government-owned financial model, data, and triggers.**

Source: *Calcutt et al. 2021*


POTENTIAL ECONOMIC ASSESSMENT OF CLIMATE-RELATED NATURAL HAZARDS ON THREE CARIBBEAN SIDS
(ANTIGUA & BARBUDA, BARBADOS AND GRENADA)
Section 7
DEBT

Incidence of Natural Disasters

In this section of the study, Antigua & Barbuda, Barbados and Grenada are collectively called the Caribbean-3 countries. The Caribbean-3 countries are located in the Atlantic hurricane belt and tropical storms and hurricanes are the main natural disasters affecting them. Typically occurring during the June–November period, hurricanes have caused 27 natural disasters since 1950 in the Caribbean-3 countries (**Table 16**). On average, a hurricane occurred once every six and a half years in each of the three countries. Considering only incidents that affected at least 2 percent of a country's population or inflicted damage of at least 2 percent of GDP, EM-DAT figures point to such events occurring in the individual countries once almost every 30 years. Among these large disasters, the median number of affected persons amounted to five percent of the country's population and the median value of damage was equivalent to 14 percent of the country's annual GDP.

TABLE 17: MAJOR HURRICANES IN C-3 COUNTRIES, 1950-2021

COUNTRY	YEAR	EVENT	COUNTRY PREMIUM (%)		EQUITY PREMIUM (%)	
			NUMBER	% OF POPULATION	US$	% OF GDP
ANTIGUA & BARBUDA	1950	Hurricane Doug	…	…	…	…
	1960	Hurricane Donna	…	…	113,223	…
	1966	Hurricane Inez	…	…	…	…
	1989	Hurricane Hugo	8,030	12	80,000	21
	1990	Hurricane Gustav	…	…	…	…
	1995	Hurricane Luis	3,702	5	350,000	6
	1998	Hurricane Georges	2,025	3	100,000	1
	1999	Hurricane Jose	2,534	4	…	…
	1999	Hurricane Lenny	3,423	5	…	…
	2008	Hurricane Omar	25,800	30	…	…
	2010	Hurricane Earl	5,000	6	12,600	0.1
	2017	Hurricane Irma	1,800	2	250,000	17
BARBADOS	1955	Hurricane Janet	…	…	…	…
	1980	Hurricane Allen	5,007	2	1,500	0.1
	1987	Hurricane Emily	230	0	100,000	0.1
	1995	Hurricane Marilyn	…	…	…	…
	2002	Hurricane Lili	2,000	1	200	0.1
	2004	Hurricane Ivan	880	0	5,000	0.1
	2010	Hurricane Tomas	2,500	1	…	…
	2017	Hurricane Irma	…	…	…	…
	2021	Hurricane Elsa	3,300	1	…	…
GRENADA	1963	Hurricane Flora	…	…	…	…
	1980	Hurricane Allen	…	…	5,300	
	1990	Hurricane Arthur	1,000	1	…	…
	1999	Hurricane Lenny	210	-	5,500	
	2002	Hurricane Lili	75	-	…	…
	2004	Hurricane Ivan	60,000	58	1,275,348	200

Source: *EM-DAT database*

Some events have been truly devastating, affecting the population of an entire country or causing damage exceeding 100 percent of annual GDP. In September 2004, Hurricane Ivan hit Grenada with sustained winds reaching 120 mph, killing 39 persons, leaving an estimated 18,000 homeless and damaging or destroying about 90 percent of the structures on the island. Every major building in the capital city of St. George's was either damaged or destroyed. Tourism was adversely affected; an estimated 60 percent of hotel rooms were damaged. The winds downed 80 percent of the nutmeg trees on the island. Ivan was considered the worst hurricane to strike Grenada since Hurricane Janet in 1955 causing damage estimated at almost 150 percent of GDP.

By several measures, the Caribbean-3 countries are among the most disaster prone in the world. **Table 18** is an excerpt from Rasmussen (2004) on the worldwide incidence of natural disasters between 1970-2002. When comparing the number of natural disasters during 1970–2002 to land area, all three Caribbean-3 countries rank among the 10 most disaster prone in the world – Antigua & Barbuda (third), Barbados (fourth) and Grenada (seventh). By this measure, they were at least nine times as exposed as the average country. The incidence of natural disasters is slightly lower when one compares the number of disasters to population. Interestingly, given that the northern island of Antigua & Barbuda is closer to the center of the hurricane belt than the southern island of Grenada and the eastern island of Barbados, there is some but not complete geographic consistency in the higher ranking in terms of vulnerability to natural disasters.

The costs of natural disasters in the Caribbean-3 countries appear somewhat lower than the very high frequency of events would suggest. The average cumulative damage was equivalent to 17 percent of annual GDP, compared to a worldwide average of 21 percent, and only Barbados is in the top 10 according to this measure, ranking seventh in the world. In terms of the human cost, only Antigua & Barbuda was among the top 10 according to the percentage of the population affected. The relatively small number of persons affected by natural disasters in the Caribbean-3 countries is consistent with the tendency for countries to become more resilient as they become richer. Average per capita GDP in the Caribbean-3 countries was US$9,045 in 2002, compared with US$1,400 for the 20 most vulnerable countries based on the percentage of the population affected. The relatively high level of income in Caribbean SIDS thus appears to substantially mitigate the human cost of the frequent natural disasters.

TABLE 18: WORLDWIDE INCIDENCE OF NATURAL DISASTERS, 1970-2002

COUNTRY	ALL RECORDED DISASTERS					ESTIMATES OF PERSONS AFFECTED			ESTIMATES OF DAMAGE		
	NUMBER OF EVENTS	NUMBER OF EVENTS DIVIDED BY LAND AREA		NUMBER OF EVENTS DIVIDED BY POPULATION		NUMBER OF EVENTS	CUMULATIVE AFFECTED IN % OF POPULATION		NUMBER OF EVENTS	CUMULATIVE DAMAGE IN % OF GDP	
		INDEX	RANK	INDEX	RANK		TOTAL	RANK		TOTAL	RANK
All Countries	6,480	100	76	100	76	4,511	62	76	2,036	21	76
Advanced Economies	1,511	23	70	39	91	742	7	119	742	3	104
Caribbean	162	599	23	387	23	114	65	66	58	37	46
Eastern Caribbean	44	1,212	5	770	6	31	85	58	18	66	19
Antigua & Barbuda	7	1,198	3	883	4	6	248	7	2	22	34
Grenada	4	886	7	348	12	2	1	127	3	23	32
Other Caribbean	118	190	36	131	35	83	52	71	40	17	63
Barbados	6	1,051	4	193	19	5	3	117	3	7	67

Sources: *Rasmussen (2004)*

Based on the Global Climate Risk Index,[11] the order of the world ranking changes for the Caribbean-3 countries (see **Table 19**). Grenada ranked the highest among the Caribbean-3 countries at 16th in the world in 2019, followed by Antigua & Barbuda in second place at 72nd and then Barbados in third order at 158th in the world. The difference in rank order of the Caribbean-3 countries in the Global Climate Risk Index compared to Rasmussen (2004) reflects two main factors. First, the Climate Risk Index takes into account the impact of more recent natural disasters, especially Hurricane Ivan which devastated Grenada in 2004. Second, there are significant differences in methodological approaches, measuring climate risk based on a series of weighted indicators of deaths and losses as opposed to events and natural disasters.

TABLE 19: CLIMATE RISK INDEX FOR C-3 COUNTRIES, 1996–2015, 2015, AND 2019

CRI RANK (2019)	COUNTRY	CRI SCORE 1996-2015 AVG.	CRI SCORE 2015	CRI SCORE 2019	FATALITIES (ANNUAL AVG.)		FATALITIES PER 100, 000 INHABITANTS (ANNUAL AVG.)		LOSSES IN MILLION US$ (PPP)		LOSSES PER UNIT GDP IN %	
					AVG.	RANK	AVG.	RANK	AVG.	RANK	AVG.	RANK
72	**Antigua & Barbuda**	74.5	124.5	118	0.25	163	0.31	53	15.5	132	0.98	23
158	**Barbados**	144	124.5	118	0.05	175	0.02	162	3.7	155	0.1	105
16	**Grenada**	40.3	124.5	118	2	132	1.94	9	78.7	86	7.8	3

Notes: *(CRI = Climate Risk Index; GDP = gross domestic product; PPP = purchasing power parity)*
Sources: *Extracted from Global Climate Risk Index 2017 and 2021*

Macroeconomic Implications of Natural Disasters

Studies of the impact of natural disasters (see **Box 8**) point to a discernible short-term impact. A common finding is an immediate contraction in output and a worsening of external and fiscal balances, with the impact somewhat softened by an increase in transfers from abroad. The observed deterioration in fiscal and external balances is not surprising, as governments and households would be expected to borrow in response to these temporary shocks. These natural disasters appeared to have an adverse effect on poverty, although it was unclear how quickly poorer households recovered.

Hurricane Ivan's destruction of Grenada was the single largest natural disaster in the Caribbean-3 countries. **Table 20** below provides a snapshot of Ivan's impact on short-term macroeconomic outcomes in Grenada, to illustrate the discernible short-term impact of natural disasters in Caribbean-3 countries.

11 The Global Climate Risk Index identifies the extent to which countries have been affected by extreme weather events. These can be meteorological events such as tropical storms or tornadoes, hydrological events such as storm surges or flash floods, or climatological events such as wildfires or droughts. The index scores are derived from country's rankings within the following indicators, and averaged with according to their weighting: number of deaths (weight 1/6); number of deaths per inhabitants (Weight 1/3); sum of losses in US$ in purchasing power parity (PPP) (Weight) 1/6; Losses per unit of Gross Domestic Product (GDP) – Weight: 1/3. The lower the index score the higher the climate risk.

BOX 8: REVIEW OF LITERATURE ON MACROECONOMIC IMPLICATIONS OF NATURAL DISASTERS

A number of studies reveal that natural disasters are typically associated with:

- ***An immediate contraction in economic output.*** Natural disasters are found to have been usually accompanied by a reduction in same-year GDP growth, with the impact ranging from very small to 20 percentage points or more (e.g., Dominica in 1979). Among studies looking at Latin America and the Caribbean, Auffret (2003a) considers 16 natural disasters and finds that 1 percent of GDP in direct damage reduced same-year GDP growth by 0.5 percentage point; Charvériat (2000) analyzes 35 events with a median damage of 3 percent of GDP and finds that same-year GDP growth fell in 28 cases, with an overall median reduction of 1.7 percentage points; and Crowards (2000b) finds that same-year GDP growth fell by an average of 3.1 percentage points following 21 major disasters. Evidence of an impact on growth beyond the contemporaneous drop is mixed. For example, Caselli and Malhotra (2004) present a comprehensive statistical study and conclude that disasters have no significant impact on the growth path.

- ***A worsening of external balances.*** Several studies have found that natural disasters typically result in an increase in imports (e.g., for reconstruction materials and to compensate for lost production) and that exports tend to suffer. For example, ECLAC (2000) considers 42 large natural disasters in Latin America and the Caribbean and finds that these were, on average, associated with a deterioration in the balance of payments by an amount equal to about one-third of the estimated damage. Crowards (2000b) finds that 21 major natural disasters led to an average worsening of the trade balance owing to an increase in import growth and, to a lesser extent, a reduction in export growth. Benson et al. (2001) find that a country's dependence on agricultural exports is an important indicator of the magnitude of the deterioration in the trade balance.

- ***A deterioration in fiscal balances.*** While significant relationships are difficult to establish, the literature suggests that natural disasters can put substantial pressure on public finances. Emergency assistance and reconstruction efforts call for higher government expenditure, and, at the same time, tax revenue may shrink because of the decline in economic activity. Consequently, the result is usually a worsening of public balances. For example, IMF (2003) finds that five large exogenous shocks in Africa were associated with same-year increases in fiscal deficits of up to 3 percent of GDP. However, in many cases natural disasters appear to have had very little impact on fiscal balances, perhaps because countries are constrained by existing expenditure envelopes (Benson and Clay, 2003a).

- ***An increase in poverty.*** Natural disasters have been found to have a disproportionate impact on the poorer segments of the population. Low-income households often settle in the most vulnerable areas and live in poorly constructed housing (World Bank, 2003). In addition, the poor have fewer assets and limited access to credit and are therefore less able to cushion the impact on consumption of disruptions to income (IMF, 2003). While natural disasters thus appear to have an adverse effect on poverty, it is unclear how quickly affected households can recover.

Source: Rasmussen (2004)

TABLE 20: IMPACT OF HURRICANE IVAN ON MACROECONOMIC OUTCOMES IN GRENADA

INDICATORS	GENERAL IMPACT	ILLUSTRATION FROM GRENADA AND HURRICANE IVAN
Growth	**Negative**	Hurricane Ivan caused an estimated 24% decline in GDP, representing a loss of US$26 million in the fourth quarter of 2004. Since then, expansion in the construction sector has partially offset slowdowns in tourism and agriculture, leading to a projected positive rate of growth in subsequent years.
Tax base	**Negative**	A weaker fiscal performance due to sharp decline in tax revenue arising from the contraction in GDP. Tax revenues declined by about 19-20%.
Fiscal Balance	**Negative**	The growth in capital expenditure, including the outlays for rehabilitation and reconstruction widened the overall fiscal deficit (after grants) to approximately 12% of GDP (almost 19% without grants)
Public Debt	**Negative**	Public sector debt increased from 110 percent of GDP in 2002 and 2003 to 130 percent of GDP in 2004.
Trade balance	**Negative**	The decline in GDP had a negative impact on revenues corresponding to international trade and transactions. This category witnessed a decline of approx. 21%, with an increase in import growth reflecting activities related to emergency efforts, which are not subject to taxes and duties.
International aid flows	**Positive - Humanitarian aid increases post climate disaster. Development aid could increase for countries that have a high climate risk.**	The Regional and International Community responded with the deployment of its multi-discipline Rapid Needs Assessment Team (RNAT) comprising CIDA, USAID/OFDA, UNICEF, UNIFEM, UNDAC, PAHO, Red Cross, Environment and the Sustainable Development Unit of the OECS and CARILEC at an approximate cost of US$3 million. As of September 2005, donors had disbursed close to US$100 million to finance the reconstruction program.
Remittances	**Positive**	Although money transfer services did not operate during September 2004, the largest money transfer business on the island, Western Union, had all centers operational within seven weeks. Inflows of funds increased by roughly 40% over previous monthly averages, before declining to current levels of around 10% above pre-Ivan levels. In addition to financial remittances, shipment of goods and supplies from the diaspora abroad in the months immediately following Ivan played an important role in supporting affected families on the island.
Poor and other vulnerable populations	**Negative**	Male headed households account for some 52% of the households in Grenada and females 48%, but among the poor the situation is reversed, female headship accounts for 52% of the households. The living conditions and capacities of the head of household is important as it affects issues of intergenerational poverty, the life chances of children and the other dependents, such as the youth and elderly who live in the household. The difficult situation of poor female-headed households in the aftermath of hurricane Ivan was evident in the larger numbers of females in shelters than males and the larger number of children than adults.

Sources: *Extracted from IMF (2019); IMF (2017); and OECS (2004)*

Natural disasters can affect long-term outcomes through a number of channels, including environmental damage to agriculture, fishing, and forestry (ECLAC 2000). The destruction of schools and health care facilities could have a long-lasting negative impact on the stock of human capital; reconstruction efforts could crowd out productive capital expenditure; increased indebtedness could raise the rate of interest and reduce investment; and a worsening of fiscal and external balances could trigger inflation and/or financial crises.

Evidence of the long-term economic effects of natural disasters is inconclusive. There has been little empirical analysis, and drawing firm conclusions is difficult. Among the few available studies, Benson and Clay (2003) present findings suggesting that

proneness to natural disasters has a negative impact on long-term economic growth, while the World Bank (2003) finds that natural disasters have no significant discernible impact on growth. A more recent study by Mohan, Ouattara and Strobl (2018) suggests that it is difficult to find any clear and large net aggregate impact of hurricanes on GDP in the Caribbean. This is because aggregate analyses are likely to mask different responses of the components (export and import, government spending, investment and private consumption) of GDP. In addition, Mohan and Strobl (2021) suggest that in the Caribbean, hurricane destruction causes an immediate negative impact on unemployment which lasts up to four years after the disaster strikes. For the female youth, the impact on total unemployment is shorter and lasts up to three years after the storm. Counterfactual estimates suggest that under current climate policies, most vulnerable countries, especially small island developing states, could see climate change and associated climatic disasters reduce their long-term GDP growth by 19 percent and 63 percent by 2050 and 2100, respectively (Kompas, T., et al. 2018; IMF 2019; and Andrijevic, M. & Ware, J., 2021). Additionally, negative long-run growth due to climate risks are universal and proportionally affect all countries, both developed and developing (IMF 2019). As such, generalized impacts of climate risks on macroeconomic outcomes are relevant for all countries, including for Antigua & Barbuda, Barbados and Grenada (see **Table 21** below).

TABLE 21: MACROECONOMIC RISKS FROM CLIMATE CHANGE

DEATHS		PHYSICAL RISKS[12]		TRANSITION RISKS[13]
		FROM EXTREME WEATHER EVENTS	FROM GRADUAL GLOBAL WARMING	
Demand - losses deriving from extreme climate events such as floods and storms also lead to demand side shocks, for example by reducing household wealth and thus private consumption. *(Impact on growth, tax base, trade balance, spending)*	Investment	Uncertainty about climate events	-	Crowding out from climate policies
	Consumption	Increased risk of flooding and other disasters to residential and commercial property	-	Crowding out from climate policies
	Trade	Disruption to import/export flows due to natural disasters	-	Distortions from asymmetric climate policies
Supply - shocks that affect the productive capacity the economy *(Impact on tax base, public debt, fiscal balance remittances, vulnerable groups)*	Labour supply	Loss of hours worked due to natural disasters	Loss of hours worked due to extreme heat	-
	Energy, food, and other inputs	Food and other input shortages	-	Risk to energy supply
	Capital shock	Damage due to extreme weather	Diversion of resources from productive investment to adaptation capital	Diversion of resources from productive investment to mitigation activities
	Technology	Diversion of resources from innovation to reconstruction and replacement	Diversion of resources from innovation to adaptation capital	Uncertainty about the rate of innovation and adoption of clean energy technologies

Source: *Extracted from Batten (2018)*

12 Physical risks are risks associated with climate related to hazardous events (floods, cyclones, earthquakes, etc.) as well as vulnerability of exposure of human and natural systems, and their ability to adapt. Physical risks include: i) gradual global warming and the associated physical changes, for instance in total seasonal rainfall and sea level; and ii) increased frequency, severity and correlation of certain types of extreme weather events. The effects of these two types of risks on the macro economy are likely to differ in terms of timing and severity

13 Transition risks are risks that might arise from the transition to a low-carbon economy, which will be required to limit the cumulative emission of greenhouse gases, particularly carbon dioxide.

Case Study: Grenada - Natural Disaster Risk Financing Layering

Grenada sits at the southern end of the Atlantic hurricane belt and so is less at risk of frequent natural disasters than some of its Caribbean peers. Nevertheless, the risks of devastating disasters are highly elevated. Of the 182 countries in the Climate Risk Index, Grenada was in the top 2 percent for losses to climate-related natural disasters as a percent of GDP during 1997–2017, and in the top 5 percent of climate-related disaster fatalities. In particular, Hurricane Ivan in 2004 caused major damage. Rising sea levels are also an acute risk to coastal areas where most of the population live and where most of the major economic infrastructure is located. There is a 1 percent probability that in any given year, a natural disaster will impose losses for Grenada of more than 35 percent of GDP (IMF 2022). Risk layering can help the government to allocate cheaper sources of funds toward more frequent natural disasters and to pay for rarer events with funds obtained from more expensive sources.

Contingency Reserves[14]

Contingency reserve funds allow the Grenadian g--overnment to finance the lower layer of natural disaster costs because they come with an opportunity cost that increases with the amount of funding that is idle. Grenada currently counts on the following contingency reserves that can potentially be used in the event of natural disasters:

i. **Budgetary contingency.** Consistent with the Public Finance Management Act, the budget includes a contingency provision equal to 2 percent of revenues each year (around EC$15 million). This reserve is available for unexpected expenditures but requires a supplementary budget. The appropriated amounts are not capitalized into a fund, rather they form part of the government's regular reserves.

ii. **Sinking fund.** The government maintains a sinking fund with the Eastern Caribbean Central Bank, which amounted to around EC$37 million at end-2018. These funds are intended for debt reduction but are freely available to the government and could be drawn down in the event of a major natural disaster.

iii. **National Transformation Fund (NTF) Contingency Fund.** The NTF is funded by revenues from the country's Citizenship by Investment program and aims to provide grant financing to the budget for capital projects. The Fiscal Responsibility Law requires that, when debt remains above a threshold level of 55 percent of GDP, 40 percent of NTF inflows be placed into a contingency fund for arrears repayment, debt reduction, and contingency financing for disaster relief. In 2019, the government amended NTF regulations that: (i) define the objectives of the Contingency Fund, focusing on the use of financial resources for relief, reconstruction, and recovery from a natural disaster; (ii) set the rules of accumulation of resources in the fund; and (iii) flesh out governance and accountability arrangements.

Contingent Credit Lines

Contingent credit arrangements are designed to give countries access to critical liquidity at prearranged borrowing rates immediately following an exogenous shock or disaster. In January 2020, Grenada's buffers were boosted with the approval of the Catastrophic Deferred Drawdown Option (CAT-DDO) of US$20 million (about 1.7 percent of GDP) by the World Bank. The CAT-DDO provides Grenada with contingent financing in case of natural disasters or other emergencies on highly concessional terms while supporting the country's reform program to build multi-sectoral resilience to disaster and climate risks (IMF 2022). During the 2020 COVID-19 pandemic, the government opted not to draw down the CAT-DDO given the ever-present risks of natural disasters and particularly a "combined shock" scenario of a pandemic and a hurricane.

14 This section draws heavily on Grenada's Climate Change Policy Assessment (IMF 2019b).

Parametric Insurance

Parametric insurance, as a form of catastrophe insurance, is emerging as a new way to provide prompt budgetary support to governments subjected to major natural disasters, like hurricanes and earthquakes, especially in SIDS that are subject to frequent disasters. Grenada has two parametric insurance policies with CCRIF:

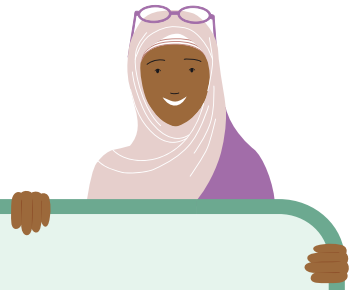
i. For the 2019/2020 period, Grenada purchased coverage for Tropical Cyclones and Earthquakes and Excess Rainfall from CCRIF for large disasters at a cost of US$1.5 million and coverage limit of US$44.4 million (3.9 percent of GDP) in an extreme event if the parametric options are triggered. However, CCRIF's coverage has not always been sufficient, particularly for flooding-related damages. Grenada has not yet received CCRIF pay-outs since it became a member in 2008 despite recurring moderate flooding damages, reflecting the chosen attachment point of the CCRIF policy.

ii. The Caribbean Oceans and Aquaculture Sustainability Facility (COAST), another CCRIF insurance product commenced in July 2019, offers customized coverage with a maximum pay out of US$ 800,000 for the fisheries sector for a premium (US$100,000). The Government of Grenada has allocated US$ 370,000 to an Emergency Relief Fund to help affected farmers in the event of losses.

Hurricane Clause

Grenada became the first country to include a hurricane clause that enables a reduction in debt service in the event of a natural disaster. As part of its 2015 debt restructuring, Grenada negotiated a hurricane clause with its creditors, whereby debt service on the restructured debt (mainly to 2025 private bondholders, but also to Taiwan, Province of China and the Paris Club) would be automatically re-profiled following a hurricane and in some cases other types of natural disasters (Asonuma et al. 2018). The agreed period of a pause in debt service is up to one year, depending on the severity of the event. The key trigger is parametric and tied to a verification by an independent insurance body (CCRIF), whose pay-out for modelled losses had to exceed US$15 million. This clause could release funds of over 1 percent of GDP in the event of a major natural disaster (the amounts would be smaller for smaller events). The clause can be triggered up to a total of three times, with a maximum relief of 2.6 percent of GDP per event. **Box 9** discusses how Barbados' natural disaster clauses differ from Grenada's.

While Grenada's progress on natural disaster risk financing has been substantial, the aggregate amount of coverage still falls somewhat short of desirable levels (IMF 2022). Preliminary estimates made in Grenada's CCPA suggest that the overall amount of protection against natural disasters offered by the various layered financing instruments should be around 10 percent of GDP, below the current "dedicated" coverage against natural disasters of 7 ¼ percent of GDP as of 2020. However, increased investment in resilient infrastructure would over time reduce the needed size of this buffer.



BOX 9: BARBADOS NATURAL DISASTER CLAUSE

Grenada was the first sovereign to include a natural disaster clause into its bonds, during its second debt restructuring in 2015, even as the economic effects of the devastation wrought by Hurricane Ivan more than a decade ago were still being felt. While Grenada and other Caribbean SIDS have been ravaged by extreme weather conditions, Barbados has been spared the worst of the natural disasters that befall the Caribbean. Nevertheless, perhaps looking back at Grenada's experience in 2004 and, more recently, Dominica's devastation caused by Hurricane Maria in 2017, the Barbadian Government prudently decided in the context of its 2018-2019 debt restructuring to implement the natural disaster clause across nearly its entire debt stock.

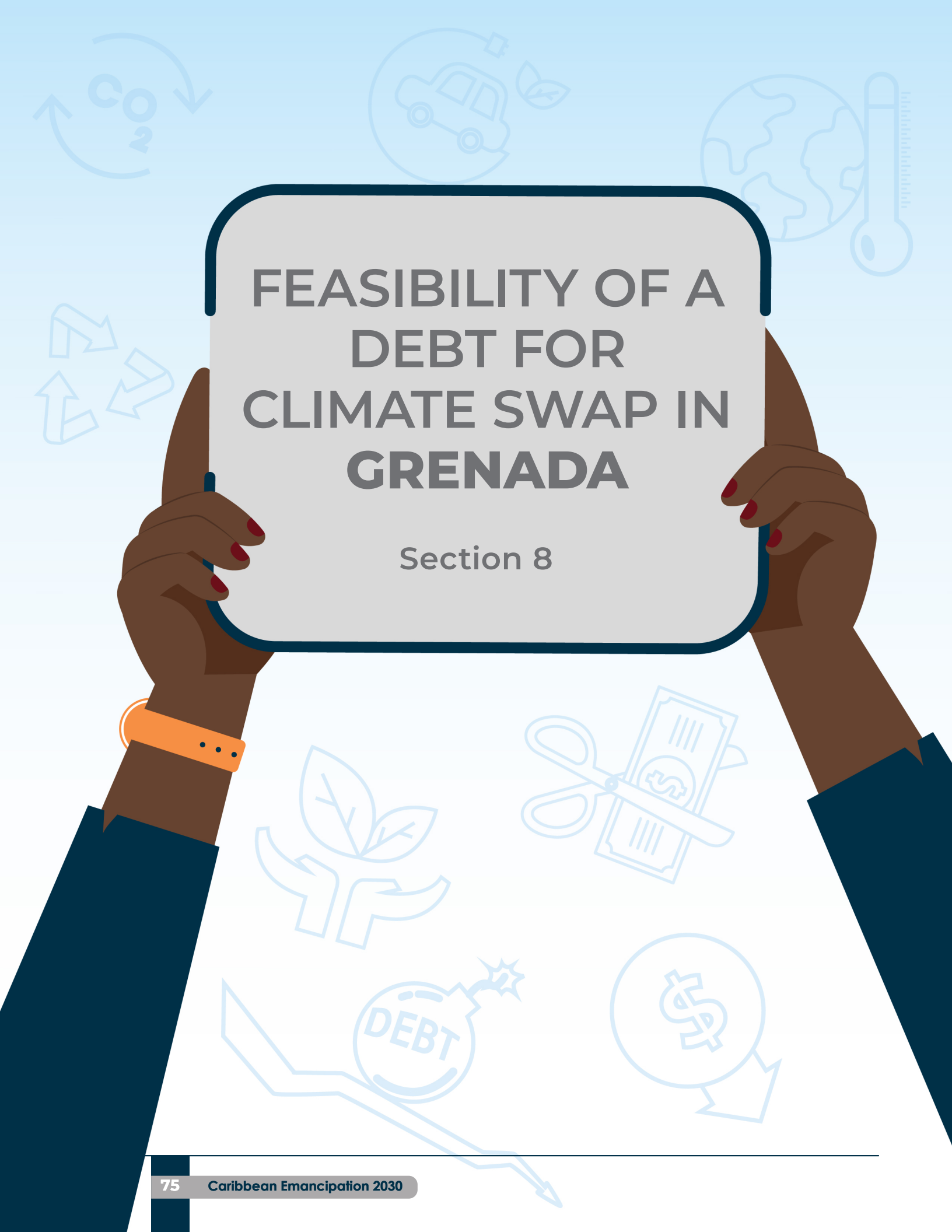
The Barbados debt restructuring took place in two main stages. First, Barbados dollar-denominated domestic-law governed instruments were restructured in November 2018. Then, U.S. dollar-denominated English and New York law governed debt were restructured in the fall of 2019 and early 2020. The restructured domestic debt contained a natural disaster clause. Like that of Grenada's, Barbados' natural disaster clause allows Barbados to defer principal and interest payments when it receives a payout from CCRIF, the Caribbean's sovereign risk insurance pool, in connection with a qualifying natural disaster. What was new for Barbados was that its natural disaster clause: (i) expanded trigger events to include earthquakes and excess rainfall events in addition to tropical cyclones; and (ii) had a lower loss threshold of US$5 million, compared to a staggered threshold of US$15 million and US$30 million for Grenada.

If Barbados receives a CCRIF payment related to a tropical cyclone, earthquake or excess rainfall event with losses greater than US$5 million, it can elect to defer interest and principal payments on its domestic debt for two years. All deferred interest amounts will be capitalized into principal as they come due and the remaining principal amortizations will be increased pro rata to take into account the interest capitalization and the deferred principal payments. Barbados is required to deliver a notice to domestic bondholders describing the natural disaster event, but unlike the case of Grenada, there are no requirements for Barbados to provide a certificate, a written report from CCRIF or summary reports to the trustee. Barbados is also limited to deferring payments three times.

In its external debt restructuring, Barbados again added the natural disaster clause to the restructured instruments. This clause largely mirrored that in the domestic debt restructuring except for three key changes.

First, the loss threshold for Barbados's natural disaster clause was increased to US$7.5 million for hurricanes; the loss threshold for earthquakes and floods remained unchanged at US$5 million. Second, Barbados is still limited to deferring payments three times, but it is not allowed to make a deferral in the final two years before maturity of the bond. This was done to prevent Barbados from extending the final maturity of the bond. Third, this natural disaster clause includes a blocking mechanism for external bondholders. Upon receiving notice from Barbados that it has experienced a natural disaster and intends to defer payments, holders of 50 percent of the principal amount of the bonds have 15 days to block Barbados' deferral. This veto right was done to prevent any potential opportunistic or abusive triggering of the clause on the part of Barbados.

With the natural disaster clause included across its debt stock, Barbados will be able to free up as much as US$700 million, or almost 15 percent of its GDP, in debt service payments, which could instead be spent on emergency response, rebuilding and recovery. Barbados is now considered the only country in the world with a climate-resilient public debt stock.


FEASIBILITY OF A DEBT FOR CLIMATE SWAP IN GRENADA
Section 8
DEBT

FEASIBILITY OF A DEBT FOR CLIMATE SWAP IN GRENADA

Debt-for-climate swaps have emerged as a popular mechanism for green debt relief in recent proposals put forward to tackle the twin issues of debt sustainability and climate action (CSIS 2021; Volz et al. 2020). A debt-for-climate swap is an agreement between a debtor country and one or more creditors to restructure, reduce, or buy a portion of outstanding debt in exchange for a percentage of the proceeds (in local currency) to finance climate mitigation and adaptation efforts, usually by a third party. This approach is an evolution of the debt-for-nature-swaps since the early 1980s which saw over US $1 billion worth of debt swapped by almost 30 countries. These early deals typically involved creditor governments writing off debt bilaterally so long as the savings were channelled into conservation, in effect, functioning as grants.

In 2016, Seychelles, a SIDS in the Western Indian Ocean region, secured an innovative debt for climate swap deal with its Paris Club creditors, South Africa and The Nature Conservancy, acting as a third party.[15] The US$20 million debt for climate swap deal redirected a portion of Seychelles' current debt payments to fund the creation of the second largest marine protected area in the Indian Ocean, an area larger than Germany. This was the world's first debt swap aimed at ocean conservation and climate resiliency and it reduced Seychelles' debt position. The use of both public and private funds created a new co-investment model for future debt for nature swaps in other areas of the world.

More recently, in November 2021, Belize completed a debt for marine protection swap. Under the agreement, a subsidiary of The Nature Conservancy lent funds to the government of Belize to buy back a US$553 million "super bond" - equivalent to 30 percent of GDP - at a discounted price of 55 cents per dollar. It financed this by issuing US$364 million in "blue bonds" in a sale arranged and underwritten by Credit Suisse and the International Development Finance Corporation (DFC) provided insurance. This allowed the loan to have a low interest rate, a 10-year grace period during which no principal is paid, and a long maturity of 19 years. In exchange, Belize agreed to double its Biodiversity Protection Zones (coral reefs, mangroves, and sea grasses where fish spawn) to 30 percent by 2026 and spend about US$4 million a year on marine conservation until 2041. An endowment fund of US$23.5 million has been established to finance conservation after 2040. This debt for marine protection swap reduced Belize's external debt by a striking 10 percent of GDP. Two things stand out about the Belize deal. First, the bond market itself provided the "grant" in the form of a discount price on the super bond. And second, the deal involved debt owed to private creditors which was financed by a different class of private investors (Bala et al. 2022).

There is significant potential for Caribbean and other SIDS with limited experience of such innovative financing instruments to learn from the debt for climate swap deals of the Seychelles and Belize and for the international community to ensure future debt for climate swaps are as effective as possible (Rambarran 2018). Innovative financing mechanisms such as debt for climate swaps could help other Caribbean SIDS fund their costly climate adaptation programs, as well as further reduce their onerous debt levels. One such Caribbean SIDS is Grenada.

Grenada's economy is shaped by its small land mass nested between the Caribbean Sea and the Atlantic Ocean, limited natural resource base, and fragile eco-systems (World Bank 2016). Grenada, known as the 'Spice Isle' for its production of nutmeg, cloves and other exotic spices, has shifted over the years away from agriculture to an economy dominated by tourism. Tourism, which accounts for over 80 percent of Grenada's exports, has been severely affected since 2020 by the global COVID-19 pandemic.

Grenada is highly vulnerable to the adverse impacts of climate change. Although the island sits at the southern end of the hurricane belt and so is less at risk of frequent tropical storms than some of its Eastern Caribbean peers, the risks of devastating disasters remain highly elevated. Hurricane Ivan in 2004 caused damage of over 200 percent of GDP, destroyed 90 percent of all property, rendered inoperable 70 percent of hotel infrastructure, affected 85 percent of nutmeg exports and caused a decline of 24 percent in GDP (World Bank 2016). Hurricane Emily in 2005 further worsened the situation. Slower moving impacts

15 Founded in 1951, The Nature Conservancy is the world's leading environmental NGO dedicated to protecting biodiversity and fighting the climate crisis. It has impacted conservation in over 70 countries and territories, protected more than 125 million acres of land and 5,000 river miles, and operates more than 100 marine conservation projects globally.

of climate change are equally concerning. Most of the island's population and infrastructure are located in the coastal zone, making the economy vulnerable to impacts of sea-level rise, inundation, erosion, and storm surges, while the steep slopes are vulnerable to landslides. Drought and changing weather patterns also endanger livelihoods.

For more than two decades, Grenada has been grappling with low growth and high debt. Grenada was hit hard by multiple external shocks including Hurricane Ivan in 2004, the global financial crisis in 2008 and the COVID-19 pandemic from 2020. These shocks contributed to persistent fiscal deficits and sizeable debt accumulation. In 2015, Grenada undertook a second comprehensive restructuring of its public debt, which had climbed to over 100 percent of GDP. This came eleven years after Hurricane Ivan devastated Grenada and ten years after its first debt restructuring triggered by Ivan. Grenada entered into an IMF-supported program which allowed it to conclude debt restructuring agreements after protracted negotiations with three main creditors: (1) Export-Import Bank of the Republic of China (Taiwan), (2) commercial bond holders of Grenada's previously restructured 2025 sovereign bond, and (3) Paris Club creditors. Of note, is that Grenada was able to negotiate an innovative 'hurricane clause' with its Paris Club creditors, which allows the country to defer principal and interest debt service payments, or to fast-track debt restructuring operations in the event of a hurricane or insured natural disaster. Despite this progress, the IMF has classified Grenada's external public debt as "in debt distress" due to unresolved arrears to official bilateral creditors.

Grenada is also setting its sights on developing its 'Blue Economy'. Grenada's tri-island ocean space is 80 times larger than its land area. Beyond its 345 square kilometers of land territory, Grenada has almost 27,500 square kilometers of blue ocean space. Recognizing the rich marine ecosystem and increasing environmental pressures, Grenada has created marine protected areas and commits to create more. The share of marine protected area coverage in relation to the Grenada's territory increased from the baseline of 3 percent in 2016 to 20 percent in 2020. Grenada is the first country in the Eastern Caribbean to develop a Blue Growth Coastal Master Plan, which identifies opportunities in areas such as fisheries and aquaculture, blue biotechnology, renewable energy, research and innovation. The Master Plan proposes a 'Blue Growth and Oceans Governance Institute' which seeks to house many of the leading global ocean research centers, and promote Grenada's vision to optimize the coastal, marine, and ocean resources around the Caribbean (Hurley 2017).

Prima facie, Grenada appears to be a suitable Caribbean SIDS for a debt for climate swap. In principle, the general mechanics of Grenada's debt for climate swap would be as follows:

1. **The first step is for Grenada to agree to participate in a debt conversion and to make a commitment to place a portion of its ocean area under protection, improve policies and invest in marine conservation and climate adaptation. Grenada could agree to exchange some of its bilateral debt to fund specific initiatives such as the Grande Anse Marine Protected Area in its Blue Growth Coastal Master Plan.**

2. **Secondly, is to find a creditor to whom Grenada has an outstanding debt obligation and who would be willing to enter into a debt swap deal. In this case, 65 percent of Grenada's external public debt is owed to multilateral creditors, 17 percent to bilateral creditors and around one-fifth to commercial creditors (Table 22). Non-Paris Club countries hold 12 percent of Grenada's external debt. Trinidad and Tobago is Grenada's single largest bilateral non-Paris Club creditor and holds five percent of Grenada's external debt. It, therefore, seems feasible for Grenada to initiate discussions with Trinidad and Tobago on the debt for nature swap proposal and then extend discussions to its three other main non-Paris Club creditors - Taiwan, Kuwait and Venezuela.**

TABLE 22: GRENADA: STRUCTURE OF EXTERNAL DEBT, 2020

DEBT	STOCK (US$ MILLIONS)
External Debt	567
Multilateral	366
of which IMF	39
Bilateral	97
Paris Club	7
Non-Paris Club	67
Kuwait	14
Taiwan	16
Trinidad & Tobago	28
Venezuela	9
Commercial	109
Other	18

Source: *IMF 2016b*

3. **The third step is for Grenada to establish a new, national trust to fund and manage "Blue Growth" marine conservation and climate adaptation initiatives. Or, the authorities could use the already existing Grenada National Trust as the special purpose vehicle, after appropriate reorganization of its governance and operations to meet the requirements of stakeholders. The new trust will be capitalized through impact loans and additional grants raised from donors and will use this capital to purchase the sovereign debt.**

4. **The fourth step is for the trust to subsequently lend these funds to the government of Grenada to implement the debt buyback from its non-Paris Club creditors. The government of Grenada would buy back a portion of Grenada's debt to these creditors at a discount to be negotiated. The government of Grenada agrees to repay the trust at the face value of these claims on more favourable terms over an extended period of time in local Eastern Caribbean currency.**

5. **Finally, these regular payments will fund specific "Blue Growth" initiatives in Grenada with a portion of the payments set aside for a perpetual endowment to fund the trust permanently.**

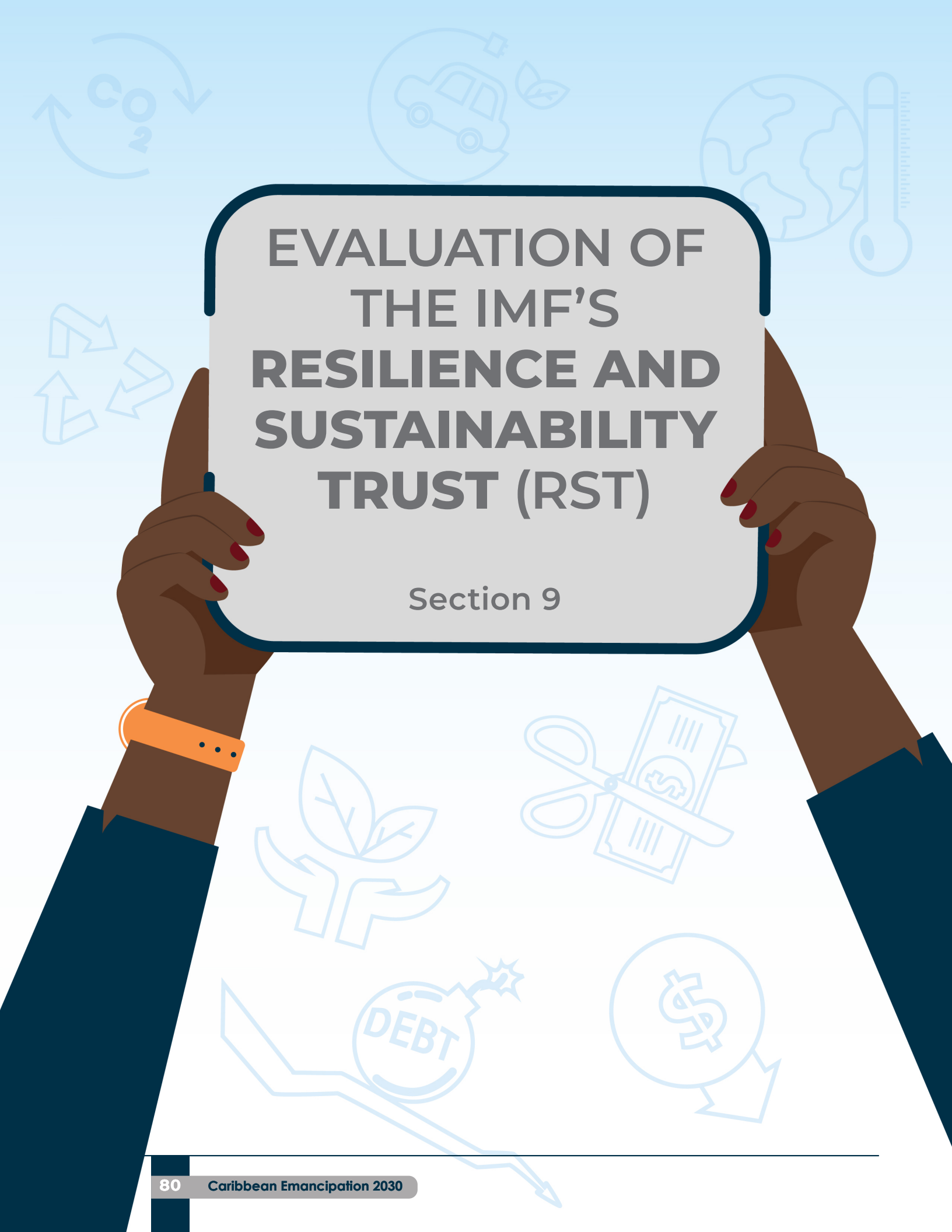
Debt for climate swaps are very context specific and complex processes. They require extensive negotiations with many stakeholders and have high transaction costs. For example, the Seychelles government started working with The Nature Conservancy in 2012 to design a debt for climate swap, which was then closed in 2016, almost four years later. The complexity and transaction costs should be weighed against the investment and strength of the policy commitments from the participating government. Nevertheless, debt for climate swaps have several advantages for Caribbean SIDS. First, it shows South-South debt swaps can be replicated in the Caribbean region, which so far has been unable to mobilize new resources to deal with high debt and climate adaptation activities. The Grenada Government could eventually transfer the impact investment loan into the holding of another newly created trust in another Caribbean SIDS, and put these recouped funds into new climate adaptation projects. This would mobilize large volumes of climate finance quickly and extend conservation benefits throughout the Caribbean region.

Second, the deal is likely to be closed faster with non-Paris Club creditors than with Paris Club and commercial creditors since it is being negotiated among countries with strong economic, business and social relationships. There's no compelling evidence to suggest any of Grenada's non-Paris Club creditors would be unwilling to engage in a worthwhile debt for climate swap. In fact, when it comes to a debt for climate swap deal with Trinidad and Tobago, Grenada could be pushing on an open door. In May 2017, the Prime Minister of Trinidad and Tobago gave a commitment that Trinidad and Tobago would take a leadership role in helping Caribbean countries to create a resilience fund that allows for financing climate change projects.

Finally, Grenada would see a sharp fall in its public debt burden which could put the country onto a more sustainable debt trajectory. If its non-Paris Club creditors agreed to swap 100 percent of their claims on Grenada, this would free up almost US$70 million in conservation funding and Grenada's public debt would fall by to a more sustainable 64 percent of GDP. Apart from the debt reduction, Grenada could also negotiate to extend its debt repayment period with its non-Paris Club creditors. This would reduce the government's annual debt service, freeing up much-needed funds for other budgetary priorities. The government of Grenada could also convert most of the payments to the national trust fund into local currency EC dollars, rather than US dollars, reducing the call on the country's limited official reserves.

As successful as the Seychelles and Belize debt-for-climate swaps have been, they are yet to be used at scale, and it seems likely that other mechanisms will be needed to implement sufficient debt relief to meet both the debt and climate crises facing Caribbean SIDS. Some groups have emphasized the potential scalability of state-contingent and performance-linked financial instruments in debt relief. The Finance for Biodiversity Initiative (FBI) proposed a Nature and Climate Sovereign Bond Facility, for example, which would recapitalize sovereign debt using innovative financial instruments, such as "Nature Performance Bonds" (FBI 2020). These bonds incentivize climate and biodiversity policy action through direct financial returns, with reductions to the principal or interest payments based on evidence of actions taken or outcomes achieved. Further, these bonds could contain standardized protocols and features, allowing them to be traded in secondary markets and to scale rapidly.

In May 2017, the Prime Minister of Trinidad and Tobago gave a commitment that Trinidad and Tobago would take a leadership role in ***helping Caribbean countries to create a resilience fund that allows for financing climate change projects.***


EVALUATION OF THE IMF'S RESILIENCE AND SUSTAINABILITY TRUST (RST)
Section 9
DEBT

EVALUATION OF THE IMF'S RESILIENCE AND SUSTAINABILITY TRUST (RST)

In August 2021, the IMF issued a historic allocation of Special Drawing Rights (SDRs)[16] equivalent to US$650 billion. The SDR allocation was meant to benefit all IMF members, address the long-term global need for reserves, and to help the most vulnerable countries struggling to cope with the impact of the unprecedented COVID-19 pandemic. However, since the newly created SDRs were credited to IMF member countries in proportion to their existing quotas in the Fund, only one-third of the SDR allocation went to developing countries. In response, the Group of Seven (G7) nations agreed to voluntarily re-channel roughly 20 percent of those SDRs allocated to them or US$100 billion in SDRs to the countries that need them. China pledged also to provide US$10 billion of its SDRs to Africa, or 25 percent of its allocation.

On April 13th 2022, the Executive Board of the IMF approved the establishment of a 'Resilience and Sustainability Trust' (RST) to provide affordable long term financing to low- and middle-income countries to enhance economic resilience and sustainability, including to climate change. The RST rechanneled some of the unused SDRs. For the first time in the history of the IMF, a concessionary instrument for longer term financing has been created and for the first time it explicitly takes vulnerability into account. While the RST appears to be a key innovation in the international financial architecture, its current design features may not have the intended transformational impact on developing countries. Instead the RST may end up giving additional powers to the IMF in areas outside its mandate, such as climate action, while locking up billions of dollars in climate-fighting resources. In this regard, both Mariotti (2022) and the Task Force on Climate, Development and the IMF (2022) have put forward several recommendations to improve the future design of the RST.

These recommendations are as follows:

i. Broaden eligibility criteria and scope. About three quarters of the IMF's membership will be eligible for RST financing. This will include all low-income countries, all developing and vulnerable small states, and lower middle-income countries with either per capita gross national income (GNI) below 10 times the 2021 IDA operational cut-off (about US$1,205) or less than 25 times the IDA operation cut-off if it has a population below 1.5 million, as reported by the World Bank. However, as climate vulnerability is a multidimensional concept, income and population-based metrics will not adequately capture the acute exposure many higher-income climate vulnerable SIDS have to climate risks and should not be used solely to determine eligibility to the RST. Climate impacts may amount to a major share of GDP for climate vulnerable nations. For example, Dominica - classified by the IMF as an upper middle-income country - suffered damages amounting to 226 percent of its GDP due to Hurricane Maria in 2017. Ahmed et al. (2021) suggests that the RST eligibility criteria should integrate climate vulnerability based on simple measures such as susceptibility to physical climate risks like floods, droughts and hurricanes, or the share of fossil-fuel exports in total foreign exchange earnings.

ii. Provide access that is not conditional upon having an existing IMF program. Only a country with an existing upper credit tranche IMF program or an instrument supporting a program with upper credit tranche quality-conditionality will qualify for RST financial support (Pazarbasioglu and Ramakrishnan 2022). When RST resources are coupled with existing IMF programs, at least two considerations merit attention. First, current IMF programs are designed to help countries tackle their balance of payments problems, not fight longer term structural issues such as climate change. Adding RST resources to programs that have fundamentally different objectives, will reduce the ability of the RST to help countries address the climate crisis in a meaningful way. Second, if the RST resources are simply used as a 'sweetener' to make the terms more appealing to member states with existing IMF programs, the RST may lose its potential for transformational impact on climate efforts.

16 The Special Drawing Rights (SDR) is an international reserve asset created by the IMF to supplement its member countries' official reserves. The value of the SDR is based on a basket of five currencies – the US dollar, the euro, the Chinese renminbi, the Japanese yen and the British pound sterling.

iii. Focus on country ownership and avoid conditionalities. To qualify for RST support, a country will need: a package of high-quality policy measures consistent with the RST's purpose; a concurrent financing or non-financing IMF-supported program with "upper credit tranche" quality policies; and sustainable debt and adequate capacity to repay the Fund (Pazarbasioglu and Ramakrishnan 2022). Conditionality, therefore, forms part of RST lending. The IMF's own evaluation of structural conditionality in IMF-supported programs suggests most conditions had little structural depth and only about half of them were met on time. Compliance and effectiveness were higher in the areas of IMF core competency, such as public expenditure management and tax-related issues, and lower in areas such as privatization and reform of the wider public sector (IEO 2007). Furthermore, IMF conditionality which focused on austere fiscal adjustment has a long history of harming the poorest and increasing inequality (Stubbs et al. 2021), compromising gender equality and women's rights (Fresnillo 2020) and undermining human rights of all types (Centre for Economic and Social Rights 2018). Of particular concern is what 'green conditionality,' or conditionality in the area of climate change, might entail. IMF (2021) proposes covering climate change-related policy challenges comprehensively in Article IV consultations, expanding coverage of climate risk to all financial stability assessments (FSAPs), and a substantial scaling up of climate-related capacity development activity. Alarmingly, this will happen in policy areas where the IMF lacks expertise and where country ownership and citizen participation are critical for building a social contract, tackling inequality and ensuring a smooth ecological transition. Country ownership needs to be the organizing principle for RST support since the Trust is intended for developmental impact. The IMF needs to actively work with member countries to implement programs that facilitate the mobilization of resources to meet their Nationally Determined Contributions (NDCs) under the Paris Climate Agreement. NDCs are the clearest articulations of how countries intend to tackle climate change. The IMF should also play a leadership role in global policy coordination and capacity building in preparing for climate shocks.

iv. Ensure collaborative governance. The success of the RST will depend on strong global collaboration. Coordination with other international financial institutions, particularly the World Bank, as well as outside experts and civil society, in the governance of the RST will help to provide the best expertise, knowledge and financing to eligible member countries. The experience of the World Bank and other multilateral development banks (MDBs) with climate programming and longer-term investments and disaster risk financing will be vital to the success of the RST. Trust programmes should be designed relying on meaningful consultation with a wide range of stakeholders, including civil society organisations, trade unions and women's rights organizations (Mariotti 2022).

v. Build to scale with self-replenishment mechanisms. The RST should be scaled in a manner commensurate with the needs of vulnerable countries facing the climate crisis. This includes effectively capitalizing the RST and establishing mechanisms to trigger SDR replenishment. The IMF intends to initially capitalize the RST with around US$45 billion and to start RST operations around the 2022 time of the IMF/World Bank Annual meetings. While the RST alone cannot be expected to finance all the climate resilience needs, the scale of resource mobilization for developing countries is immense. The Vulnerable Twenty Group (V20), among the world's most climate vulnerable developing countries, has called for the RST to be capitalized, at minimum, at US$100 billion, and at the 2021 United Nations Climate Change Conference (COP26), Barbados Prime Minister Mia Mottley called for an annual allocation of US$500 billion in SDRs for the next 20 years to finance the transition to renewable energy and limit the rise in global temperatures. Like the Poverty Reduction and Growth Trust (PRGT) which is used for the HIPC Debt Relief Initiative, the resources of the RST will be mobilized on a voluntary basis from members who wish to channel their SDRs or currencies for the benefit of poorer or vulnerable countries. The RST will therefore have built-in triggers to replenish its resources and ensure sustainability of its funding stream.

The IMF is expected to conduct an interim review of the RST some 18 months after its operationalization, which should be around April 2024. This interim review will take stock of the initial experience of the Trust and revisit the set of qualifying structural challenges. A more comprehensive review of the RST is scheduled to take place in three years, or around October 2026 at the latest. There is still a window of opportunity for the IMF's shareholders to improve the design of the RST to make it an important, transformational instrument for resilience and sustainability in the world economy.


GLOBAL POLICY FRAMEWORKS AND AGREEMENTS THAT CAN ANCHOR SOVEREIGN DEBT AND CLIMATE-RELATED DISASTERS
Section 10
DEBT

GLOBAL POLICY FRAMEWORKS AND AGREEMENTS THAT CAN ANCHOR SOVEREIGN DEBT AND CLIMATE-RELATED DISASTERS

Governments around the world have promised to help developing countries achieve long-term debt sustainability. This pledge is embodied in SDG 17 – a global partnership for sustainable development – which commits governments to "assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate." However, despite the regularity of sovereign debt crises, there is a wide disconnect between this promise and reality. No international consensus exists on a global framework (legal or otherwise) to undertake an orderly, predictable and equitable restructuring of sovereign debt. This significant weakness in the global financial architecture is of critical concern to Caribbean SIDS caught in a middle income country high debt – low growth trap for the past three decades.

Although widespread official support for a global "big bang" sovereign debt initiative is not likely any time soon, there are structured and coordinated sovereign debt frameworks, the features of which could inform the design of a framework to help Caribbean SIDS anchor debt sustainability and climate-related natural disasters.

These global policy frameworks include the following:

- **The Brady Plan**
- **The enhanced Heavily Indebted Poor Countries (HIPC) Initiative**
- **The Debt Service Suspension Initiative (DSSI)**
- **The Common Framework for Debt Treatments Beyond the DSSI**
- **Debt for Climate Swaps**
- **The IMF's Disaster Resilience Strategy (DRS) Framework**

The important message for Caribbean SIDS is that it is possible to single out a specific group of highly vulnerable countries and design a debt relief and climate action framework tailored to their particular circumstances, without having to consider all debtor countries worldwide. It also clearly demonstrates that targeted debt relief operations are possible even in the absence of a statutory global framework (Erlassjahr 2021).

THE BRADY PLAN

In 1989, the incoming Bush administration announced the Brady Plan to deal with the debt crisis in Latin America. The Brady Plan, named after then U.S. Treasury Secretary, Nicholas Brady, differed from previous official plans in that it explicitly considered debt forgiveness as a means to restore the solvency of a group of highly indebted developing countries, mainly in Latin America.[17] The main elements of the Brady Plan were as follows:

- **Allow commercial banks to exchange their loans into sovereign bonds.** The key innovation was to allow U.S. commercial banks to exchange their loans to developing countries into new sovereign bonds, which were partly collateralized by U.S. Treasury bonds, allowing them to get the debt off their balance sheets. In total, 17 Brady Plan deals amounting to over US$160 billion were implemented on a country-by-country basis, starting with Mexico in September 1989 and ending with Côte d'Ivoire and Vietnam in 1997. The large size of these new tradable Brady bond instruments created a liquid secondary market for emerging market sovereign bonds and can thus be seen as the start of the modern era of sovereign bond trading.

17 There were 17 Brady Plan countries. Eleven countries were in Latin America: Argentina, Bolivia, Brazil, Costa Rica, Dominican Republic, Ecuador, Mexico, Panama, Peru, Uruguay and Venezuela. The other six countries were Bulgaria, Côte d'Ivoire, Jordan, Nigeria, Philippines, Poland and Vietnam.

- **Provide a "menu" of options**. The debtor country and its Bank Advisory Committee offered commercial banks a "menu" of options, allowing them to choose between different new instruments. Par bonds exchanged bank loans for bonds of equal face amount, with a fixed, below-market rate of interest, allowing for long-term debt service reduction and protection from fluctuations in interest rates (Choudhry 2001). Discount bonds exchanged loans for a lesser amount of face value in bonds (generally a 30-50 percent discount), allowing for immediate debt reduction, with a market-based floating rate of interest. Both par and discount Bonds were 25- or 30-year collateralized bonds (Trade Association for the Emerging Markets 2021). Banks could also choose to provide new money to participating countries, in which case they were offered new instruments with better terms, e.g., higher coupons or shorter maturities. Interest arrears were partly written off but also partly capitalized into new short-term floating rate bonds. In the Mexican deal, for example, banks choose to swap 49 percent of their loans for discount bonds, 41 percent for par bonds and the remaining 10 percent to provide new money. **Table 23** below presents an illustrative set of Brady bonds issues.

TABLE 23: SELECTED BRADY BOND ISSUES

COUNTRY	BOND TYPE	ISSUE DATE	MATURITY PERIOD (YEARS)	ISSUE AMOUNT (US$ MN)	COUPON TYPE
Brazil	Par	15/04/1994	30	10,489	Fixed (4-6%)
Brazil	Discount	15/04/1994	30	7,286	Libor + 0.8125%
Poland	Par	27/10/1994	30	930	Fixed (3-5%)
Poland	Discount	27/10/1994	30	2,970	Libor + 0.8125%
Mexico	Par	28/03/1990	29	17,875	Fixed (6.25%)
Mexico	Discount	28/03/1990	29	11,507	Libor + 0.8125%
Argentina	Par	30/09/1993	30	12,489	Fixed (4-6%)
Argentina	Discount	31/03/1993	30	4,136	Libor + 0.8125%
Philippines	Par	12/01/1992	26	1,894	Fixed (4.25-6.25%)
Bulgaria	Discount	28/07/1994	30	1,850	Libor + 0.8125%

Sources: *Qian (2021)*

- **Link debt relief to economic reforms.** Participating countries would continue to benefit from loans from the IMF and World Bank, debt rescheduling from Paris Club creditors, and loans and guarantees from government agencies. However, a portion of the loans from the IMF and World Bank would be set aside specifically to finance operations involving debt reduction. In turn, debt relief was linked to some assurance of market-based economic reforms. Countries would need to adopt strong policies to ensure that they would be able to service their reduced debt service burdens.

The Brady bond process ended in the 1990s and is generally regarded as a success. First, after years of protracted debt renegotiations, it allowed participating countries to negotiate substantial reductions in their overall levels of debt and debt service and to put an end to the 'lost decade' of the 1980s debt crisis. Barthélemy and Lensink (1992) found that for a sample of five Brady Plan agreements the total decline in commercial bank debt was about US$9 billion or 11 percent of the 1989 debt level. Cline (1995) cites the success of the Brady Plan by measuring the performance of Brady countries in economic

growth, price stability, lowering of interest rates and return to the capital markets. Second, the agreements succeeded in greatly improving the liquidity and efficiency of the developing country bond market. The volume of bond issues increased from US$1.5 billion in 1985 to more than US$200 billion in 1992. The efficiency of the market increased, as bid/ask spreads fell by more than one-half in a few years (Claessens and Pennacchi 1996). Finally, the Brady Plan encouraged many emerging markets countries to adopt and pursue ambitious economic reform programs in trade liberalization, foreign investment, taxation and financial market liberalization.

This is not to say, of course, that the Brady Plan succeeded in solving all economic problems throughout the emerging markets. As highlighted by Chuhan and Sturzenegger (2005), the step-up of interest payments inherent in some of the new sovereign bonds threatened the debt sustainability of some debtors a decade later, thus contributing to renewed default risks. In addition, the belief that Brady bonds were 'undefaultable' turned out to be wrong. Ecuador became the first country to restructure its Brady bonds in 2000, followed by Uruguay (2003), Argentina (2005), and Côte d'Ivoire (2010).

The Enhanced Heavily Indebted Poor Countries (HIPC) Initiative

The failure of previous attempts to end the cycle of debt rescheduling in developing countries and strong pressure from international advocacy groups, especially Oxfam International, to end the injustice of poverty led to the launch by the IMF and World Bank of the Heavily Indebted Poor Countries (HIPC) Initiative in the fall of 1996 (Roodman 2010). The key goal of the HIPC Initiative has been to allow heavily indebted poor nations, mainly in Africa, to permanently exit the process of repeated debt rescheduling. At the launch of the HIPC Initiative, the IMF and World Bank predicted that 20 out of the 40 countries would soon become eligible for interim debt relief and that the debt deal would provide a total debt stock reduction of US$8.2 billion (about 20 percent of their outstanding debt) in NPV terms. After nearly three years, it was clear that the HIPC initiative was not meeting its desired objective. Only six countries had reached the point to be considered for interim debt relief and only one country was eligible for full debt relief. In the face of intense public pressure, especially from civil society's Jubilee 2000 debt relief campaign, the IMF and the World Bank formally agreed at the 1999 Annual Meetings to enhance the HIPC Initiative through broader, deeper and faster debt relief and to strengthen the links between debt relief, poverty reduction, and social policies. This was mainly done through (i) a lowering of the ratios considered to provide debt sustainability (together with a lowering of the minimum thresholds to qualify for the openness/fiscal criteria), (ii) replacing the principally fixed three-year period between decision and completion points by the concept of a floating completion point, and (iii) the provision of interim relief from some creditors between the decision point and the completion point.[18]

The enhanced HIPC Initiative is a two-step process. In the first step to be considered for HIPC Initiative assistance, a country must fulfill the following four conditions:

i. Be eligible to borrow from the World Bank's International Development Agency (IDA), which provides interest-free loans and grants to the world's poorest countries, and from the IMF's Poverty Reduction and Growth Trust, which provides loans to low-income countries at subsidized rates.

ii. Face an unsustainable debt burden that cannot be addressed through traditional debt relief mechanisms, meaning the terms on offer through the Paris Club group of creditors.

iii. Demonstrate a good track record of reform (in principle over three years), at the time the IMF-supported program is approved (the decision point).

iv. Demonstrate a firm commitment to reducing poverty through the creation of a Poverty Reduction Strategy Paper (PRSP) based on a broad participatory process primarily with civil society groups.

Once a country has met or made sufficient progress in meeting these four criteria, the Executive Boards of the IMF and World Bank formally decide on its eligibility for debt relief, and the international community commits to reducing debt to a level that

18 In 2005, to help accelerate progress toward the United Nations Sustainable Development Goals (SDGs), the HIPC Initiative was supplemented by the Multilateral Debt Relief Initiative (MDRI). The MDRI allows for 100 percent relief on eligible debts by three multilateral institutions - the IMF, the World Bank, and the African Development Fund (AfDF) - for countries completing the HIPC Initiative process. In 2007, the Inter-American Development Bank (IDB) also decided to provide additional ("beyond HIPC") debt relief to the five HIPCs in the Western Hemisphere.

is considered sustainable. This first stage under the HIPC Initiative is referred to as the decision point. Once a country reaches its decision point, it may immediately begin receiving interim relief on its debt service falling due.

In the second step, in order to receive full and irrevocable reduction in debt available under the HIPC Initiative, a country must:

i. Establish a further track record of good performance under programs supported by loans from the IMF and the World Bank.

ii. Implement satisfactorily key reforms agreed at the decision point.

iii. Adopt and implement its PRSP for at least one year.

Once a country has met these criteria, it can reach its completion point, which allows it to receive the full debt relief committed at the decision point.

Of the 39 countries eligible or potentially eligible for HIPC Initiative assistance, 37 have reached the completion point and are receiving full debt relief from the IMF and other creditors. Eritrea and Sudan are being considered for entry into the program. To date, debt reduction packages under the HIPC Initiative have been approved for these 37 countries, 31 of them in Africa, and have provided US$76 billion in debt service relief over time (IMF 2021). Before the HIPC Initiative, eligible countries were, on average, spending slightly more on debt service than on health and education combined. Now, they have increased markedly their expenditures on health, education, and other social services. On average, such spending is about five times the amount of debt-service payments (IMF 2021). Guyana and Haiti were the only two Caribbean SIDS to have benefited from substantial debt reduction under the enhanced HIPC Initiative.

Nevertheless, the scope and structure of the enhanced HIPC Initiative has been heavily criticized for at least three main reasons. First, the HIPC Initiative's debt sustainability thresholds - the debt-to-export and debt-to-government-revenues criteria - are arbitrary and too restrictive. Sachs (2000) has expressed the view that the HIPC sustainability criteria have nothing to do with debt sustainability in any real sense. Others have stressed that 'the ratios of debt and debt service to exports, which are more frequently used, are hard to justify on theoretical grounds', and that 'at the very least, indicators relative to GDP should be taken as seriously as indicators relative to exports'. Finally, there is some doubt if the NPV calculations used in the HIPC framework are appropriate. Among many problems related to discounting, the key argument is that discounting unpayable debt at market discount rates gives the wrong picture about a HIPC's debt burden (Gunter 2001).

Second, the plethora of different sets of conditionalities has slowed down the enhanced HIPC debt relief process considerably. As of April 2022, it has taken more than 23 years and counting to try and end the debt sustainability problems of HIPC countries. Conditionalities such as the much-criticized Poverty Reduction Strategy Papers (PRSPs) from the IMF and World Bank do not succeed in aligning macro-economic issues and poverty issues more closely than in the past and macro-economic frameworks haven't changed significantly as a result of PRSPs.

Third, based on an analysis of 22 countries that had reached the enhanced decision point by December 2000, Gunter (2001) argues that the enhanced HIPC Initiative is unlikely to provide a solid exit from future debt rescheduling for many of the poorest countries. Though the enhanced HIPC Initiative is likely to have a positive impact on poverty reduction in many HIPCs, more sustainable development and further poverty reduction could be achieved with a more definitive exit from unsustainable debt than the enhanced HIPC Initiative provides.

The Debt Service Suspension Initiative (DSSI)

In early 2020, the profound new crisis caused by the COVID-19 pandemic began to put significant fiscal pressures on developing countries and pushed their debt levels to new heights. In response, the G20 nations agreed in April 2020 to establish a Debt Service Suspension Initiative (DSSI) to allow low-income countries to temporarily suspend their debt service payments due to bilateral creditors in 2020 and 2021. The G20 Finance Ministers extended twice the DSSI, first in October 2020 (until end-June 2021) and second in April 2021 (until end-2021). The DSSI, however, was a failure as it provided a mere US$13 billion in debt relief

to 48 of the 73 eligible countries, and about half of this debt relief came from China. Private creditors, who hold the largest share of developing country debt, did not participate at all. Grenada was the only Caribbean SIDS to participate in the DSSI. The DSSI expired at the end of 2021, forcing participating countries to resume their debt service payments. A major reason for the low uptake by developing countries in this new debt initiative was that the temporary suspension of debt service payments was not enough to compensate for the fear of a credit rating downgrade and possible loss of market access.

The Common Framework for Debt Treatments

In late 2020, G20 leaders also agreed to the Common Framework for Debt Treatments beyond the DSSI to restructure and, if necessary, forgive debt in low-income countries. The Common Framework applies to the same 73 countries that were eligible for DSSI treatment and excludes middle-income countries. G20 official creditors - both traditional "Paris Club" creditors, such as France and the United States, and new creditors, such as China and India, which overtook the Paris Club as lenders in the last decade - agreed to coordinate to provide debt relief consistent with the debtor's capacity to pay and maintain essential spending needs. So far, only three countries - Chad, Ethiopia, and Zambia - have made requests for debt relief under the Common Framework and none has successfully completed a debt restructuring. The Common Framework is an important step, as it now includes key lending countries such as China, India, Korea, and Russia. However, a major concern is that the Common Framework lacks incentives and mechanisms to bring debtor governments and private creditors together. Debt restructuring can only go ahead if a debtor government is able to reach a comparable agreement with both bilateral and commercial creditors, so the refusal of private creditors to participate can block any debt relief.

Debt for Climate Swaps

In April 2021, the IMF's Managing Director Kristalina Georgieva announced that the Fund would work with the World Bank to establish a climate-for-debt swaps mechanism to be launched at COP26. However, in late October the IMF dropped plans to release a joint proposal with the World Bank and narrowed its push for debt-for-climate swaps to focus on countries without major debt issues. This coincided with the G20's failure to address the broader debt crisis at its leaders' summit in Rome in October 2021. With a lack of leadership from the Bank, Fund, and G20, it was left to others to raise the issue. Ahead of the 2021 United Nations Climate Change Conference in Glasgow, the V20 finance ministers – which represent 55 climate-vulnerable nations with a total of 1.4 billion people – issued a statement calling for "a major debt restructuring initiative for countries overburdened by debt – a sort of grand-scale climate-debt swap where the debts and debt servicing of developing countries are reduced on the basis of their own plans to achieve climate resilience and prosperity" (V20 2021). In a statement released during COP26, 243 CSOs called for debt cancellation in recognition of the larger "climate debt" owed by the Global North to the Global South. This was echoed by 43 UK Members of Parliament in a cross-party letter sent to UK Secretary of State for the Foreign Commonwealth and Development Office, Liz Truss, during COP26, which demanded the UK support, "efforts to write off debt for countries in the global South and allow them to prioritize their response to climate breakdown." In December 2021, the Alliance of Small Island States (AOSIS) announced a Finance for Acting on Climate in the Eastern Caribbean (FACE) initiative, proposing a scheme for debt-for-climate swaps.

The IMF's Disaster Resilience Strategy (DRS) Framework

In 2019, the IMF created the Disaster Resilience Strategy (DRS) to integrate the investments needed to build resilience against natural disasters into a consistent macroeconomic framework. The DRS approach was informed by the Sendai Framework for Disaster Risk Reduction and the work of the World Bank on disaster risk management and insurance strategies.

The components of a national DRS are as follows:

- A comprehensive, forward-looking diagnostic of the country's vulnerability to disaster risk and the quality of its preparedness and response mechanisms. The diagnostic would identify the key projects for inclusion in the investment plan, flag the shortfalls in the current disaster financing strategy, and review the adequacy of the existing systems for post-disaster response.

- Group disaster resilience into three complementary pillars: structural resilience, financial resilience, and post-disaster resilience (**Figure 6**). Improving structural resilience entails appropriately chosen and prioritized infrastructure and other investments to limit the impact of natural disasters (Pillar 1); ensuring financial resilience involves creating fiscal buffers and using pre-arranged financial instruments to manage recovery costs in the wake of a disaster (Pillar 2); and post-disaster resilience requires contingency planning to support a speedy response to public needs in the aftermath of a disaster (Pillar 3).

- Fit the three disaster resilience pillars within a coherent medium-term macroeconomic policy framework that ensures debt sustainability, supported by strengthened institutional and public financial management (PFM) arrangements.

FIGURE 6: NATIONAL DISASTER RESILIENCE STRATEGY
(THREE COMPLEMENTARY PILLARS)

Investing in structural resilience includes both "hard" policy measures (e.g. upgrading infrastructure, developing irrigation systems) and "soft" measures (e.g. developing early warning systems, customizing building codes and zoning rules). These required investments could far exceed a vulnerable country's capacity to build meaningful resilience to climate change. For example, according to UNEP (2016), the costs of adaptation to climate change in developing economies are estimated at about 2-3 times higher than currently available financing. While the costs of structural resilience investments are front-loaded, their benefits usually accrue over many years. For the countries in the Eastern Caribbean, for example, IMF staff

estimates that scaling up resilient investment to natural disasters could increase potential output by 3–11 percent over the long term, with a growth dividend up to nearly 0.5 percentage points per year during the transition to the new steady state (IMF 2019). A few Caribbean SIDS are making progress in building structural resilience. Bank-Fund Climate Change Policy Assessments (CCPAs,), conducted so far for Belize and St. Lucia, suggest that between one fourth and one third of the investment budgets in these countries are already devoted to resilience-building projects. In Dominica, about half of the public investment since Hurricane Maria has been allocated for disaster-resilient projects, in line with the government's goal to make Dominica the first disaster-resilient state.

Strengthening resilience also requires managing the financial costs of natural disasters. The World Bank's multi-layer risk approach, which combines different instruments for different layers of risk, provides a cost-effective approach for governments to address expected funding needs in the wake of disasters.

Depending on the frequency and severity of disasters, governments may choose to manage their disaster risk by:

- **Self-insurance through fiscal buffers;**
- **Transferring risk through insurance or other risk-sharing mechanisms;**
- **Arranging contingent financing via pre-arranged credit lines with international financial institutions; or**
- **Reliance on concessional financing and humanitarian assistance from the international community when risk transfer is not cost effective for very large and rare disasters.**

Caribbean SIDS have pursued, to varying degrees, such multi-instrument strategies. They have access to risk transfer through parametric insurance provided by a multi-country regional pooling arrangement, known as CCRIF. Jamaica benefits from a catastrophe bond issued by the World Bank. The cat bond insures the government against named storms and hurricanes and is the first to directly benefit a SIDS. Several Caribbean countries are exploring or already have mechanisms to self-insure (e.g., the Bahamas, Dominica, Grenada, Jamaica, St. Kitts and Nevis, and St. Vincent and the Grenadines). Despite the availability of these risk instruments, and their known benefits, their use has been limited due to cost and capacity constraints. For example, in 2017-2018, Caribbean countries have insured on average some 35 percent of the estimated losses to government assets from different types of hazards (Cebotari and Youssef 2020).

While scaling up structural and financial resilience building may take time, early action is warranted to develop a detailed action plan to guide the response of government agencies and the wider public in the wake of a disaster. Such an emergency response plan (i.e. disaster recovery framework) would clarify institutional arrangements, responsibilities, and the post-disaster decision-making process in order to strengthen the ability to rapidly mobilize financial and physical resources to contain disruption to public services including water, electricity, medical services, schools, citizen security, and critical financial services (IMF 2019). Caribbean SIDS have taken important steps to improve emergency preparedness. They have established a regional inter-governmental agency to mobilise and coordinate emergency disaster relief, known as the Caribbean Disaster Emergency Management Agency (CDEMA). CDEMA supports management of all phases of a disaster management cycle and encourages the adoption of disaster loss reduction and mitigation policies and practices at the national and regional level.

There are many benefits to Caribbean SIDS and other disaster-vulnerable countries in building national disaster resilience strategies but many of these countries face significant capacity constraints, large upfront costs, and limited fiscal space in developing a full strategy for building resilience. They require substantial additional support and engagement from development partners.

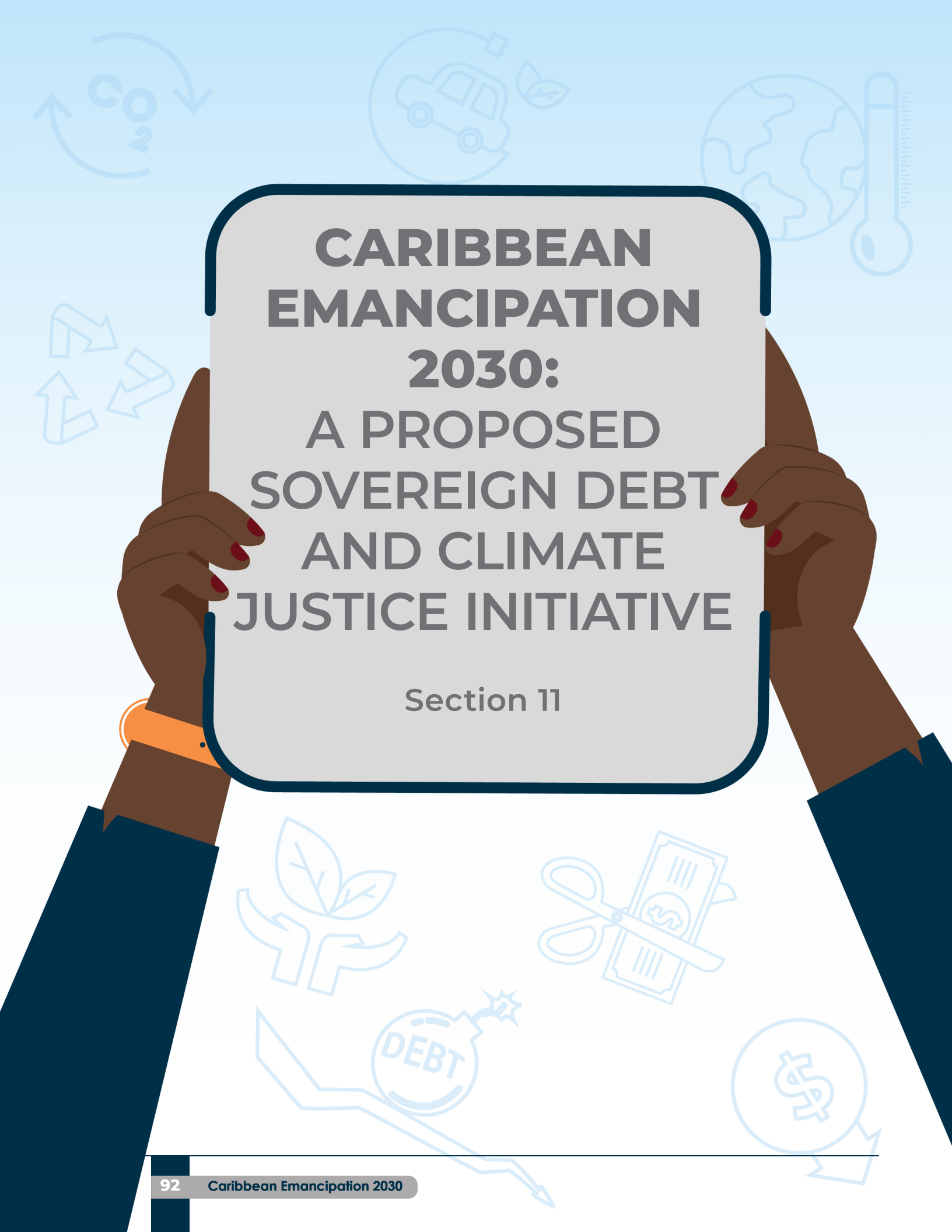
The IMF has a valuable lead role to play in supporting country efforts to develop a national resilience strategy that fits within a medium-term macroeconomic policy framework consistent with maintaining debt sustainability, including under adverse shocks, an area of core Fund expertise (IMF 2019). However, building resilience to natural disasters extends to areas in which the IMF does not have relevant in-house expertise. Climate issues have yet to be fully integrated into the IMF's existing analytic toolkit. In a survey of its flagship annual economic country evaluations between January 2019 to March 2020, only 45 of 100 Article IV Consultation reports had some mention of climate issues, including vulnerability associated with weather-related natural disasters, and few had deep analysis (Ahmed et. al 2021). This would require the IMF to closely collaborate and coordinate with other institutions that have the relevant expertise and calls for a clear division of labour,

based on respective mandates, between the Fund, the multilateral development banks, and other agencies.

The World Bank and other development banks could take a lead role in providing technical assistance to help Caribbean SIDS and other climate-vulnerable countries to identify and assess disaster vulnerabilities and to prioritise investment needs. They could also provide policy advice on financial resilience, including to help design and operationalize disaster risk finance strategies and make available contingent financial support, and provide technical assistance in building post-disaster and social resilience (such as social safety net design).

A credible DRS could help catalyze higher levels of financial support from bilateral donors, climate funds, and other sources. In addition to helping Caribbean SIDS and other countries elaborate their DRSs, bilateral development partners could supply technical assistance for building disaster preparedness; provide concessional financing for projects or the budget in support of resilience-building investments; help alleviate insurance costs as a key component of the country's financial resilience strategy; and work with country authorities to prepare project proposals for financing by climate funds. Climate Funds could consider the DRS and the endorsement by the international financial institutions of resilience building efforts and macroeconomic policies as a screening device to allow simplification of administrative requirements and criteria for qualification to provide financing for identified projects. Official sector insurance companies, such as CCRIF, could work with the multilateral development banks to help design the country's financial resilience strategy. In the Caribbean, Dominica and Grenada have developed their own national DRS after broad consultation with key stakeholders and development partners, including staff of the IMF and World Bank.

The World Bank and other development banks could take a lead role in providing technical assistance to help Caribbean SIDS and other climate-vulnerable countries to identify and assess ***disaster vulnerabilities and to prioritise investment needs.***



CARIBBEAN EMANCIPATION 2030: A PROPOSED SOVEREIGN DEBT AND CLIMATE JUSTICE INITIATIVE

Section 11

CARIBBEAN EMANCIPATION 2030: A PROPOSED SOVEREIGN DEBT AND CLIMATE JUSTICE INITIATIVE

The looming debt and climate crisis of Caribbean SIDS is an extraordinary problem requiring extraordinary and non-traditional solutions. In this regard, our proposal for Caribbean Emancipation 2030 draws on the principles and frameworks of the following debt and climate change initiatives and studies:

- **The Brady Plan**
- **Enhanced Heavily Indebted Poor Countries (HIPC) Initiative**
- **IMF's Resilience and Sustainability Trust**
- **National Disaster Resilience Strategy**
- **Green Recovery Facility – Centre for Strategic & International Studies**
- **Debt Relief for a Green and Inclusive Recovery – Heinrich-Böll-Stiftung; SOAS, University of London; and Boston University.**

We propose the Caribbean Emancipation 2030, an ambitious and comprehensive sovereign debt and climate justice initiative which seeks to remove the onerous debt overhang of Caribbean SIDS, frees up resources to boost climate resilience actions, and supports recovery, growth and development in a sustainable way. In turn, Caribbean SIDS would need to commit to pursuing appropriate green resilience policies aligned to the 2030 Agenda for Sustainable Development and the Paris Agreement as well as integrate Climate Disaster Risk Finance and Insurance (CDRFI) solutions and shock responsive or adaptive social protection (ASP) programs into their National Adaptation Plans and Disaster Resilience Strategies. Other than public health and social safety nets, green investment areas could include other critical infrastructure, early warning systems, disaster risk reduction and preparedness, biodiversity protection and sustainable land and natural resource management. This would support greater country ownership and sovereignty, which both is a more effective intervention strategy and helps countries build long-term institutional capacities.

The Caribbean Emancipation 2030 sovereign debt and climate justice initiative would draw off the balance sheet of the IMF's Resilience and Sustainability Trust – along with the technical expertise of the IMF, World Bank, and civil society organizations. The definition of "Green Resilience" would be broad enough to account for mitigation, biodiversity, and adaptation actions, with the action required as part of a specific restructuring effort determined according to the unique needs of each Caribbean SIDS. A third party, such as the IMF's Resilience and Sustainability Trust, would be responsible for monitoring and verifying the performance of Caribbean debtor SIDS, assuring creditors that they are paying for agreed-upon outcomes. There is no one-size-fits-all solution to debt relief or climate actions, and the Caribbean Emancipation 2030 would reflect that reality. This sovereign debt and climate justice initiative can be expanded beyond the Caribbean SIDS to other SIDS in the Pacific, the Atlantic, Indian Ocean, Mediterranean and South China Sea as well as other less developing countries and climate vulnerable nations.

Proposed Guiding Principles

The proposed guiding principles of the Caribbean Emancipation 2030 sovereign debt and climate justice initiative are as follows:

- Eligibility. Eligibility should be a function of debt sustainability, which should be determined in a Debt Sustainability Assessment carried out by the IMF and the World Bank, with inputs from other institutions. Debt Sustainability Assessments need to be based on realistic assumptions and account for vulnerability to climate risks.

- Use of Appropriate Debt Sustainability and Climate Resilience Targets. Debt sustainability and climate resilience targets should take structural and climate vulnerabilities of Caribbean SIDS into account. Structural vulnerabilities result from factors that are beyond the control of a Caribbean SIDS and are

therefore not dependent on a government's policy choices. A single point debt sustainability target simplifies the framework and eliminates the need for individual targets based on country specific vulnerabilities for each Caribbean SIDS. Targets would be based on more appropriate debt sustainability and climate indicators such as: NPV public debt to exports ratio; NPV public debt to revenue ratio; susceptibility to physical climate risks like floods, droughts and hurricanes, and share of fossil-fuel exports in total foreign exchange earnings.

- Shared Responsibility of All Stakeholders. The main shared responsibility of all stakeholders is to explicitly recognize Caribbean SIDS as a special category of countries that are at the crossroads of two looming, inter-related crises: debt and climate change, and are in urgent need of international support. In this context, debt relief should be a shared responsibility among the four main groups of stakeholders – Caribbean SIDS, the official sector, the multilateral sector particularly the IMF, and private investors. They should all use good faith negotiations to work toward a voluntary, orderly and effective debt restructuring based on a fair burden sharing that balances moral hazard, respect for creditor rights and restoration of market access.

- Responsibilities of Caribbean SIDS. On this basis, Caribbean SIDS must devise a credible economic program, with or without IMF support, tailored to their specific needs within which sovereign debt restructuring can occur and creditor confidence can rebuild over time. Caribbean SIDS should develop a national Disaster Resilience Strategy which is integrated into the credible macro-fiscal framework and describes the strategies being pursued by the government to build resilience against natural disasters and the associated financing needs. Caribbean SIDS must have strong ownership of the economic policies to improve the chances of successful outcomes. In crafting their economic program, Caribbean SIDS would need to commit to pursuing appropriate green policies aligned to the 2030 Agenda for Sustainable Development and the Paris Agreement as well as integrate Climate Disaster Risk Finance and Insurance (CDRFI) solutions and shock responsive or adaptive social protection (ASP) programs into their National Adaptation Plans and Disaster Resilience Strategies.

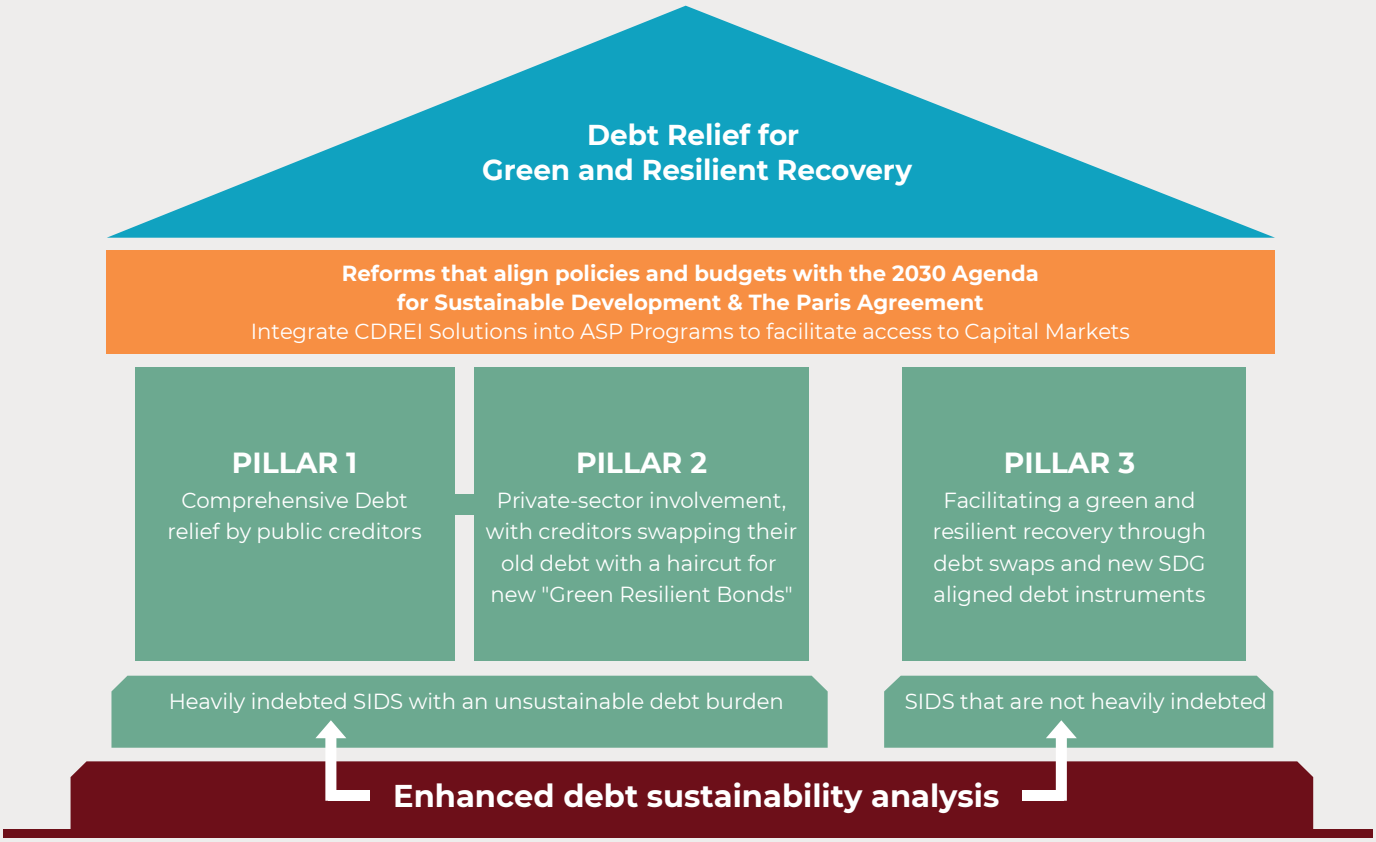
- Responsibilities of Official Sector. Multilateral support, especially an IMF program, is important to securing greater private sector participation in a sovereign debt restructuring exercise. If a Caribbean SIDS decides to enter into an IMF-supported program, then Fund program conditionality should focus on measures consistent with maintaining debt sustainability, including under adverse shocks, an area of core Fund expertise. When a Caribbean SIDS decides to pursue debt restructuring, the IMF should leave the details of the debt restructuring to the national authorities and its legal and financial advisors. The IMF can help the Caribbean SIDS to design either a home-grown or IMF-supported adjustment program to restore debt sustainability, external viability, and can help to determine the financing envelope that informs the debtor and its creditors as well as its climate resilience financing needs. The World Bank and other development banks should take a lead role in helping Caribbean SIDS and other climate-vulnerable countries to identify and assess disaster vulnerabilities and to prioritise investment needs. Close collaboration between the IMF, World Bank and other development partners should aim to ensuring consistency in policy advice, especially on financial resilience. Close collaboration with civil society and other non-governmental institutions would help in identifying solutions to debt and climate challenges facing Caribbean SIDS.

Operational Framework

This proposed Caribbean Emancipation 2030 sovereign debt and climate justice initiative consists of three pillars and aims at achieving maximum creditor and debtor participation (see **Figure 7**). **Under Pillar 1**, multilateral and official creditors would grant comprehensive debt relief to eligible Caribbean SIDS with an unsustainable debt burden – similar to, but improving upon, the HIPC Initiative and MDRI model. Caribbean governments would need to spend a significant portion of the reduced debt service burden from the debt relief granted by public creditors on climate resilience, as outlined in their national Disaster Resilience Strategies and governments would need to commit to pursuing appropriate green policies aligned

to the goals of the 2030 Agenda for Sustainable Development and the Paris Agreement. Non-Paris Club creditors would be expected to provide debt relief on comparable terms with Paris Club creditors. The IMF would remain key to coordinating actions among creditors, especially the Paris Club. To safeguard the preferred creditor status of multilateral institutions, their losses would need to be financed by the IMF's Resilience and Sustainability Trust.

FIGURE 7: CARIBBEAN EMANCIPATION 2030 SOVEREIGN DEBT CLIMATE CHANGE INITIATIVE



Adapted from Volz et al. 2020

Under Pillar 2, private creditors would grant debt relief to the same group of eligible Caribbean SIDS. Private creditors would need to accept appropriate haircuts to provide sufficient cash flow and debt stock relief as a fair contribution to the adjustment efforts of each Caribbean SIDS. As a minimum, private creditor debt relief has to comply at least with comparability of treatment, as stipulated by the Paris Club of official creditors. Private creditors participating in the debt restructuring would swap their old debt holdings with a haircut for new "Green Resilience Bonds."[19] These Green Resilience Bonds could operate in a similar fashion to the Brady Bonds, with creditors able to choose between a menu of options on debt relief, and Caribbean SIDS able to choose between a range of climate-related actions, with reductions to the principal or interest payments based on evidence of actions taken or outcomes achieved. The addition of "hurricane clauses" can be made standard for these Green Resilience Bonds to help mitigate natural disaster risk, much in the same

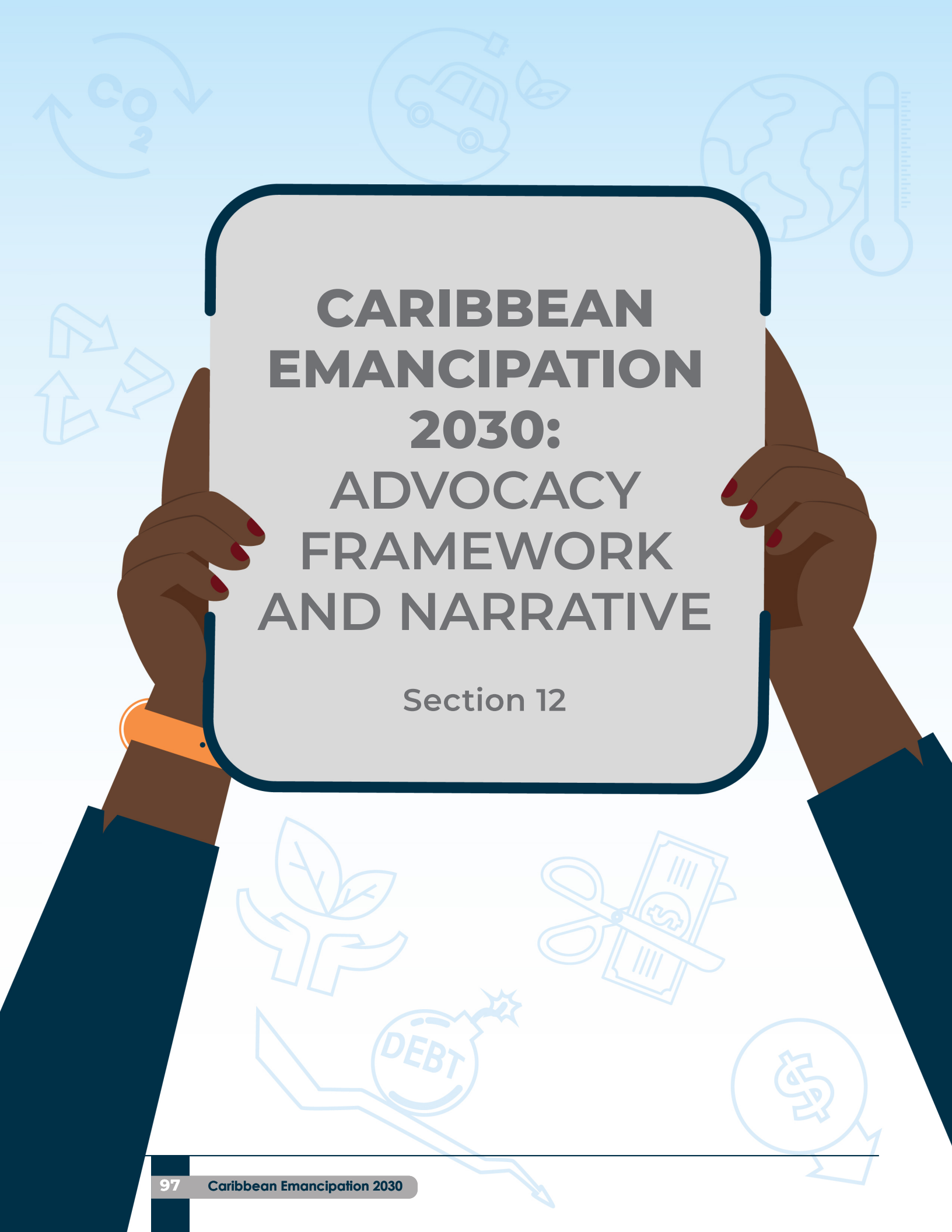
19 These Green Resilience Bonds will need to meet global standards. The Green Bond Principles, introduced by the International Capital Markets Association, set the conditions for the selection and management of green projects, while the Climate Bonds Standard offers criteria to identify sectors aligned with the objectives of the Paris Climate Agreement. The EU Taxonomy for Sustainable Activities is aligned with these and can be used as a good reference.

way that "collective action clauses" became standard after the Greek debt crisis. Further, the IMF and the World Bank could give these Green Resilience Bonds credit enhancements similar to the Brady Bonds which will help Caribbean SIDS to create a liquid secondary market for new tradeable green bond instruments and to have renewed access to international capital markets.

As in the case of the restructuring of publicly held debt under Pillar 1, Caribbean governments would need to spend a significant portion of the reduced debt service burden from the debt relief granted by private creditors on climate resilience, as outlined in their national Disaster Resilience Strategies and governments would need to commit to pursuing appropriate green policies aligned to the goals of the 2030 Agenda for Sustainable Development and the Paris Agreement.

Under Pillar 3, Caribbean SIDS that are not heavily indebted but have reduced fiscal space, could undertake a debt-for-climate swap. Such swaps would be linked to additional actions or investments in climate adaptation or mitigation and aligned with the goals of the 2030 Agenda for Sustainable Development and the Paris Agreement. Debt swaps under this pillar would be voluntary and not conducted as a distressed debt exchange. Existing creditors can decide not to participate in the debt-for-climate swap offer without having to fear that the alternative to accepting the swap would be a default.

The Caribbean Emancipation 2030 sovereign debt and climate justice initiative is designed with three objectives in mind. First, it allows participating Caribbean SIDS to negotiate substantial reductions in their overall levels of debt and debt service as a means to restore their solvency and to put an end to the Caribbean's 30-year old silent debt crisis. Second, the new Green Resilience Bonds can succeed in fostering a new wave of capital inflows to Caribbean SIDS, which can regain access to international capital markets for their financing needs. Finally, it encourages many Caribbean countries to adopt and pursue ambitious economic reform programs linking debt relief to climate resilience.



CARIBBEAN EMANCIPATION 2030: ADVOCACY FRAMEWORK AND NARRATIVE

Section 12

Jubilee 2000 Campaign

As the Caribbean is engulfed in multiple, cross-cutting crises, the fight for debt and climate justice has never been more urgent. And so is the need to build powerful, diverse advocacy movements in the Caribbean and the global south to better meet this challenge. The Jubilee 2000 debt campaign provides valuable lessons for crafting an advocacy framework for the Caribbean Emancipation 2030 sovereign debt and climate justice campaign. Jubilee 2000 was a London-based global campaign in the late 1990s that sought to eliminate the external debt of the world's poorest countries in time for the new millennium. The campaign earned the endorsement of a diverse group of leaders such as the Pope (head of the worldwide Catholic Church), Bono (Irish singer-songwriter for U2, the biggest rock band in the world), Jeffrey Sachs (American economist and former Director of The Earth Institute at Columbia University) and Pat Robertson (American media mogul and former Southern Baptist minister), and it earned the support of strong political allies in the United Kingdom and United States governments, making it harder for other official creditors such as Japan, France, and Germany to oppose debt relief (Busby 2007).

Jubilee 2000 gathered supported from 21 million everyday people from around the world who never before had an interest in the issue of debt relief. It led ultimately to the cancellation of more than US$100 billion of debt owed by 35 of the poorest countries, and became one of the most successful international, non-governmental movements in history. The resulting savings from debt cancellation were subsequently used to reduce poverty and to fund health and education programs in many developing countries.

The success of the Jubilee 2000 campaign raises interesting issues about what it did right and whether its success can be replicated by advocates of Caribbean Emancipation 2030. Five elements contributed to the success of the Jubilee 2000 campaign: the nature of the issue, the message, the messengers, an excellent inside strategy, and a differentiated international strategy (Busby 2007). The issue of debt relief for the world's poorest countries itself helped. The costs of debt relief were modest, and outside of the international financial institutions, there was no strong counter-constituency that saw its interests deeply affected. The campaign also made a number of excellent tactical moves that others can emulate. Jubilee 2000 benefited from a campaign that had broad cultural appeal in key countries, credible messengers, an excellent inside political strategy, and a differentiated strategy for various national contexts.

Five Elements for a Successful Caribbean Emancipation 2030 Campaign

These five elements which contributed to the success of the Jubilee 2000 campaign - the nature of the issue, the message, the messengers, an excellent inside strategy, and a differentiated international strategy – are considered in the context of forming the foundations of a successful Caribbean Emancipation 2030 advocacy campaign.

The Nature of the Issue

In the 1990s, there were no strong constituencies opposed to debt relief during the Jubilee 2000 campaign, partly because the nominal values of the debts involved were modest especially when spread across advanced countries. Bilateral debts held by the G-7 industrialized countries did not exceed 1 percent of GDP in the mid-1990s. In the United States, however, there were a few influential Republican legislators opposed to debt relief, but the Jubilee 2000 campaign was able to diminish their influence by reaching out to a number of them individually.

Currently, there does not appear to be any strong international constituencies that would be strongly opposed to the Caribbean Emancipation 2030 sovereign debt and climate action campaign. From the Pope's 2021 encyclical on "Fraternity and Social Friendship" which spoke about the parable of the Good Samaritan as a reminder of how a community can be rebuilt by men and women who identify with the vulnerability of others, to the call by the Vulnerable Group of Twenty (V20) – a bloc of 48 countries – for a debt restructuring option for climate vulnerable countries, to reports from different advocacy groups and academic institutions such as the Heinrich Böll Foundation, Center for Sustainable Finance, and Global Development Policy Center, Focus on the Global South and Third World Network, there have been several proposals to address the overlapping twin crises of sovereign debt and climate change. The United Kingdom highlighted the need to act on unsustainable debt to address the climate crisis at COP26 while Italy made it a priority in its G20 agenda throughout 2021. On his campaign platform,

U.S. President, Joe Biden, promised that his Democrat administration would work with international financial institutions to provide "green debt relief" as part of global recovery efforts. However, the fossil fuel industry, a strong, politically-connected and intransigent interest group, is opposed to climate action, and their influence is among the main reasons for the poor progress in climate negotiations over the past twenty-five years. The Caribbean Emancipation 2030 advocacy campaign may need to reach out to a few fossil fuel lobbyists to lessen their influence or to win their support for debt relief tied to climate change actions.

The Message

Advocates are more likely to be successful when their messages are perceived to fit with the deeply held values of policymakers and the wider public. The Jubilee 2000 campaign name embodied a dominant message. The reference to Jubilee comes from the Biblical notion in the Book of Leviticus of a time to relieve the debts of the poor and the link to the year 2000 to the coming of the new millennium. This faith-based appeal of the message of the Jubilee 2000 campaign struck a chord with church groups and church-linked charities in most G-7 countries, and the movement blossomed, galvanizing millions worldwide to participate in letter-writing efforts and protests before the official campaign closed at the end of 2000. Debts were also rhetorically linked to cuts in education and health care and, in turn, death, malnourishment, and poverty, particularly among children. This helped recast the issue from fear of corruption and moral hazard to one of morality and justice.

Likewise, the Caribbean Emancipation 2030 campaign name embodies a dominant message. First, Caribbean SIDS are a special category of countries that are at the crossroads of two looming, inter-related crises: debt and climate change, and are in urgent need of international support. Second, Emancipation Day is one of the most significant commemorations in Caribbean history. It is a celebration of freedom and liberation from slavery, a system of oppression and servitude which forced formerly enslaved people to continue to work uncompensated for their former colonial masters. The symbolism of breaking the chains of slavery and breaking the bondage of debt is a powerful one. Some 188 years after the abolition of slavery, the Caribbean region is in need of debt and climate justice. In fact, the CARICOM Reparations Commission (CRC) asserts that the Caribbean's African descendant communities are victims of a crime against humanity in the form of slavery and have a legal right to reparatory justice. The CRC has developed a Ten Point Action Plan for Reparatory Justice, which calls for cancellation of international debt owed by Caribbean nations to its former colonial masters, including Britain. Third, 2030 gives the campaign a sense of urgency since it's the year when the United Nations' 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, has run its course. At the heart of the 2030 Agenda for Sustainable Development are the 17 Sustainable Development Goals (SDGs) which provides a shared blueprint to achieve a better and more sustainable future for people and the planet.

The Messengers

The religious symbolism, coupled with the timing of the new millennium, was such that the Jubilee 2000 campaign was able to attract a broad range of influential supporters from the entire ideological spectrum. The messengers of the Jubilee 2000 campaign included the Pope, Bono, Jeffrey Sachs, and Pat Robertson. When these politically influential citizens reached out to their legislators, they often found them amenable to their perspective on the debt relief issue. Similarly, the Caribbean Emancipation 2030 campaign would need credible messengers. A partial list of potential messengers is as follows:

- **Professor Sir Hilary Beckles.** Professor Sir Hilary Beckles is Vice Chancellor of the University of the West Indies. He is a distinguished university administrator, economic historian, and specialist in higher education and development thinking and practice; and an internationally reputed historian. He is Chairman of the Caribbean Community (CARICOM) Commission on Reparation and Social Justice. Sir Hilary Beckles has championed the call to forcibly impress on Britain that it has an unpaid debt to the region of two hundred years of free labour. It is that debt for which the CARICOM governments now demand settlement. In fact, Professor Beckles has linked the call for reparations to international debt relief for the Caribbean.

- **Rihanna.** Rihanna is a Barbadian singer, actress, fashion designer and businesswoman. With sales of over 250 million records worldwide, Rihanna is one of the best-selling music artists of all time. Time named her

one of the 100 Most Influential People in the World in 2012 and 2018. As of 2021, Rihanna is the wealthiest female musician. Aside from music, Rihanna is known for her involvement in humanitarian causes. She was appointed as an Ambassador Plenipotentiary and Extraordinary by the Government of Barbados in 2018, and was declared a National Hero of Barbados on the first day of the country's parliamentary republic in 2021.

- **Bharrat Jagdeo.** Bharrat Jagdeo is a Guyanese politician who has been serving as Vice President of Guyana since 2020. He previously served as the President of Guyana during 1999 to 2011. He holds a number of global leadership positions in the areas of sustainable development, green growth and climate change. In his final term as President, Jagdeo became a global advocate for international action to avert the worst extremes of climate change, and was described by the then Chairman of the IPPC as "one of perhaps half a dozen Heads of Government who truly understands the issue." Jagdeo also steered Guyana through the HIPC Initiative which resulted in substantial debt service relief for Guyana.

- **Mia Mottley, QC.** Mia Mottley is a Barbadian politician and attorney who has served as the Prime Minister of Barbados since 2018. Over the past few years, Prime Minister Mottley has come to be recognized as a global advocate on critical economic issues facing small island states, from poverty to debt to climate change. In May 2022, she was named one of *Time Magazine's* 100 most influential people of 2022. During her address to the United Nations General Assembly in New York in September 2019, Mottley threw away her original script and instead gave a passionate post in which she called for global, moral leadership in the fight against climate change, economic and technological inequality, racism and unfair distribution of COVID-19 vaccines. At the COP26 Climate Summit in Glasgow, Scotland in October 2021, Prime Minister Mottley chided world leaders for not working more diligently to limit the potential catastrophic impacts of climate change and advised them that "National solutions to global problems just won't get it done".

- **Brian Lara.** Brian Lara is a Trinidadian former international cricketer, widely acknowledged as one of the greatest batsmen of all time. He topped the Test batting rankings on several occasions and holds several cricketing records, including the record for the highest individual score in first class cricket. Outside of cricket, Lara has established a charitable foundation in memory of his parents that aims to address health and social issues. He is an Ambassador for Sport of the Republic of Trinidad and Tobago.

An Excellent Inside Strategy

A fundamental stage of the Caribbean Emancipation 2030 campaign will be the critical and intellectually immersive process known as 'Cutting the Diamond', the same process used in the Jubilee 2000 campaign. **'Cutting the diamond'** is the process of analysing (cutting) the issue (the diamond) to determine the strategy and illuminate the true story. Think of the diamond cutters in Antwerp. They can look at a stone for two years before they make the cut that results in a luminous gem. A gem whose facets and proportions reflect brilliance and are "true" (Pettifor 2011). Cutting the diamond correctly will help Caribbean Emancipation 2030 campaigners to identify measurable and achievable goals, define the 'asks' that if implemented, will help achieve the goals, illuminate the framing of the issue, marshal coherent and persuasive arguments in support of the campaign's case, and clarify the messaging using effective and carefully chosen language and design and available channels of communication. Cutting the diamond wrongly and the campaign may fail to gain traction and fade away.

Differentiated International Strategy

Like the Jubilee 2000 campaign, the Caribbean Emancipation 2030 advocacy campaign must align itself across all dimensions of power and span mobilisation in multiple spaces. It must mobilise at the global meetings of the G20, G24, IMF, World Bank and Paris Club, but it must also build links with national organizations and campaigns in the powerful capitals of Washington D.C., New York, Ottawa, London, Geneva and Brussels, and new strategic capitals of Brasilia, Moscow, New Delhi, Beijing and

Pretoria. In particular, building links with Ottawa and Brasilia is critical. This is because the IMF Executive Director for Canada and the IMF Executive Director for Brazil together represent the collective interests of Caribbean countries in the Fund, and are acutely aware of the region's challenges of low growth, high debt and resilience to natural disasters and climate change. The Caribbean Emancipation 2030 campaign must also connect with the Caribbean's large diaspora in North America and Europe as well as with civil society organisations and non-governmental groups in Caribbean nations.

The purpose of public advocacy is to win arguments in 'the court of public opinion' and then to achieve the desired outcome. For such advocacy to be effective, Caribbean Emancipation 2030 campaigners will have to adopt some of the skills, discipline and rigor of the legal profession. They must win over first, the 'jury' or key experts and stakeholders; second, the 'public gallery' and third, the 'judge' or key decision-makers – and achieve a result. This means making an assessment of where power lies and the degree of support and/or resistance the campaign is likely to encounter. Sound leadership is also fundamental to a successful public advocacy Caribbean Emancipation 2030 campaign. Unity and cohesion in a social movement are often the result of an effective leader, like Ann Pettifor was for the Jubilee 2000 campaign. This leader must have the vision and optimism to inspire, engage and mobilize their teams, supporters and the wider public.

Draft Narrative for Caribbean Emancipation 2030

The draft narrative for Caribbean Emancipation 2030 sets out the Caribbean SIDS-specific case for linking debt relief to climate actions. CPDC and other NGOs could use this statement to inform its campaign strategy, whether its deployed in the major capitals around the world, on the streets, or online.

Small Island Developing States (SIDS) in the Caribbean are a special category of countries at the crossroads of two looming, inter-related crises: sovereign debt and climate change. Caribbean nations have been gripped by a silent debt crisis over the past three decades, experiencing chronic stagnant growth and rising public debt which have placed them among the most heavily indebted SIDS worldwide. At the end of 2020, six Caribbean countries – Barbados, Suriname, Belize, Dominica, Jamaica and Antigua & Barbuda - ranked in the top 10 of the world's most highly indebted SIDS, with their public debt stock beyond 100 percent of GDP.

An important factor underlying the unsustainable debt overhang in the Caribbean is the link to climate change effects, especially more frequent and intense tropical storms and hurricanes. Many Caribbean SIDS are located within the path traversed by storms in the North Atlantic basin. Since around 1995, there appears to be an acceleration in the number of tropical storm activity in the North Atlantic basin, marked by a distinct increase in the number of intense hurricanes. For some Caribbean SIDS, the damages from these natural disasters well exceed the size of the economy. Hurricane Maria – a powerful Category 5 hurricane – caused destruction to Dominica estimated at 225 percent of the country's GDP in 2017. In Grenada and St. Kitts and Nevis the damage was equivalent to more than one year of economic activity, after the passage of Hurricane Ivan in 2004 and Hurricane Georges in 1998, respectively. According to the EM-DAT database which records disasters throughout the world, the 89 hurricanes (for which data are available) that have hit the Caribbean over the past 70 years from 1950 to 2021, killed some 13,470 people, affected almost 10 million through injury and loss of homes and livelihoods, and caused damages of over US$30 billion (in constant 2020 US$).

In the aftermath of these destructive natural disasters, Caribbean governments with already limited fiscal space have little choice but to reallocate budgetary resources, engage in external borrowing or wait on donor aid to fund the large and unexpected public spending required for emergency response, economic recovery and longer-term reconstruction efforts. This is partly because Ministries of Finance in Caribbean SIDS are yet to fully integrate Climate and Disaster Risk Finance and Insurance (CDRFI) solutions such as parametric insurance and catastrophe bonds into their wider macro-fiscal frameworks to better manage climate-related shocks. CDRFI solutions allow governments to transfer disaster risks to the markets and to rapidly access payouts in the event of a major disaster. Applying the principles of CDRFI to shock responsive or adaptive social protection (ASP) schemes can help governments to ensure that assistance reaches affected communities as soon as possible following a disaster. Since many Caribbean SIDS are revising their national climate adaptation plans in the aftermath of COP 26, there is an opportunity to integrate CDRFI solutions into their fiscal and budgetary planning and their social protection programs.

The ability of Caribbean countries to manage their debt is complicated by the changing composition of the debt. They now owe more money to a broader range of creditors. In 2020, Caribbean SIDS had a total external debt stock of over US$30 billion. Of this total, almost US$14.5 billion or nearly half was owed to private creditors. Private creditors comprise insurance companies, pension funds, hedge funds, investment banks and high-net worth individuals. Caribbean SIDS owe more than US$10.5 billion or 33 percent of total external debt to multilateral creditors. Multilateral creditors include the International Monetary Fund (IMF), the World Bank and other multilateral development banks such as the Inter-American Development Bank (IDB). The remaining debt of just over US$5 billion or 15 percent of the total external debt is owed to bilateral creditors. In the past, bilateral creditors were primarily the rich Western countries like the United States and the United Kingdom which form part of the Paris Club group. Bilateral creditors have expanded to now include non-Paris Club countries, especially China which has become the most important bilateral lending partner in the Caribbean.

Several Caribbean SIDS have restructured their debt over the past two decades, but they have not been able to lock in the durable gains of debt relief, leading to repeated debt restructuring in a few countries while others still remain highly indebted. A sovereign debt restructuring exercise is likely to take place in the Caribbean nearly every year. During the twenty-one years between 2000 and 2021, eighteen episodes of sovereign debt restructuring operations were concluded in seven Caribbean SIDS – Antigua & Barbuda, Barbados, Belize, Dominica, Grenada, Jamaica, and St. Kitts and Nevis. At the end of June 2022, Suriname is still engaged in debt restructuring negotiations with its external creditors, a process which it started since September 2020. Any new sovereign debt restructuring strategy for Caribbean SIDS must recognize the very critical role of China, which has become the most important bilateral creditor in the Caribbean.

Without substantial debt relief, projections for the future debt sustainability of Caribbean SIDS are grim. Besides the numerous lives lost and the debilitating impact on the long-term health of Caribbean people, the protracted COVID-19 pandemic has further pushed public debt to new heights. Moreover, since April 2022, Caribbean SIDS have found themselves facing the most consequential geopolitical and geoeconomic shock of the past three decades. The war in Ukraine is raising uncertainty about the outlook for the world economy and its effects on food and energy prices are likely to further undermine debt sustainability in the Caribbean. Rising interest rates in the United States will further drive up the cost of debt and make international refinancing ever harder for those Caribbean SIDS that still maintain access to global capital markets. Climate change is likely to worsen the precarious debt burden of Caribbean SIDS. Climate projections suggest that as the century progresses, the Caribbean is expected to be much warmer and drier, with higher sea levels and prone to more intense storms. By 2030, when the United Nations' 2030 Agenda for Sustainable Development on reducing poverty and meeting other Sustainable Development Goals (SDGs) comes to an end, debt is likely to remain unsustainable in many heavily indebted Caribbean SIDS. Except for Jamaica, in these other Caribbean countries, reducing public debt to a more sustainable 60 percent of GDP requires them to maintain sizeable primary fiscal surpluses over a protracted period, which is highly questionable based on their unsatisfactory track record of fiscal performance.

Collectively, these findings make a compelling special case for urgently resolving the looming twin debt and climate change crises in Caribbean SIDS. Caribbean governments have been among the most outspoken in the world highlighting the severity of their middle-income debt crisis. For example, they were instrumental in lobbying the Alliance of Small Island Developing States (AOSIS) to issue in July 2020 one of the few collective statements on debt at the UN General Assembly, calling for global action to deliver debt relief and resilience financing to developing countries. However, a lack of regional coordination regrettably hampered sustained advocacy on the developing country debt issue into a collective movement for change. In the absence of a new, meaningful initiative, there is a real danger that Caribbean SIDS would lose sustainable development opportunities in the first three decades of the twenty-first century while still grappling with a crippling debt overhang.

We propose an ambitious and comprehensive sovereign debt and climate justice initiative called Caribbean Emancipation 2030, which seeks to remove the onerous debt overhang of Caribbean SIDS, frees up resources to boost climate resilience actions to start the transition to a net-zero economy, and supports post-pandemic economic recovery, growth and development in a sustainable way. The proposed Caribbean Emancipation 2030 has three pillars and aims at achieving maximum creditor and debtor participation.

PILLAR 1	PILLAR 2	PILLAR 3
UNDER PILLAR 1, multilateral and official creditors would grant comprehensive debt relief to eligible Caribbean SIDS with an unsustainable debt burden. Non-Paris Club creditors would be expected to provide debt relief on comparable terms with Paris Club creditors. The IMF would remain key to coordinating actions among creditors, especially the Paris Club. To safeguard the preferred creditor status of multilateral institutions, their losses would need to be financed by the IMF's Resilience and Sustainability Trust.	**UNDER PILLAR 2**, private creditors would grant debt relief through appropriate haircuts to the same group of eligible Caribbean SIDS. Private creditors participating in the debt restructuring would swap their old debt holdings for new "Green Resilience Bonds" with "hurricane clauses" to help mitigate natural disaster risk. Further, the IMF and the World Bank could give these Green Resilience Bonds credit enhancements which will help Caribbean SIDS to create a liquid secondary market for new tradeable green bond instruments and to have renewed access to international capital markets.	**UNDER PILLAR 3**, Caribbean SIDS that are not heavily indebted but have reduced fiscal space, could undertake a debt-for-climate swap. A debt-for-climate swap is an agreement between a debtor country and one or more creditors to restructure, reduce, or buy a portion of outstanding debt in exchange for a percentage of the proceeds (in local currency) to finance climate mitigation and adaptation efforts, usually by a third party.

In return for this substantial debt relief, Caribbean governments would need to commit to spending a significant portion of the reduced debt service burden on pursuing appropriate green resilience policies aligned to the 2030 Agenda for Sustainable Development and the Paris Agreement as well as integrate Climate Disaster Risk Finance and Insurance (CDRFI) solutions and shock responsive or adaptive social protection (ASP) programs into their National Adaptation Plans and National Disaster Resilience Strategies.

The Caribbean Emancipation 2030 sovereign debt and climate justice initiative is designed with three objectives in mind. First, it allows participating Caribbean SIDS to negotiate substantial reductions in their overall levels of debt and debt service as a means to restore their solvency and to put an end to the Caribbean's 30-year old silent debt crisis. Second, the new Green Resilience Bonds can succeed in fostering a new wave of capital inflows to Caribbean SIDS, which can regain access to international capital markets for their financing needs. Finally, it encourages many Caribbean countries to adopt and pursue ambitious economic reform programs linking debt relief to climate resilience.

Now is an ideal opportunity for civil society organizations across the Caribbean to work collaboratively with international partner organizations to build a global campaign for debt relief and climate justice for Caribbean and other SIDS. The highly successful Jubilee 2000 debt campaign provides valuable lessons for crafting an advocacy strategy for Caribbean Emancipation 2030. Jubilee 2000 led ultimately to the cancellation of more than US$100 billion of debt owed by 35 of the poorest countries, and became one of the most effective international, non-governmental movements in history. Caribbean Emancipation 2030 can benefit from a campaign that has broad cultural appeal in key countries, credible messengers, an excellent inside political strategy, and a differentiated strategy for various national contexts. A successful Caribbean Emancipation 2030 advocacy campaign would result in the cancellation of up to US$20 billion of debt owed by Caribbean SIDS.

There is no one-size-fits-all solution to debt relief or climate actions, and the Caribbean Emancipation 2030 initiative would reflect that reality. This sovereign debt and climate change initiative can be expanded beyond the Caribbean SIDS to other SIDS in the Pacific, the Atlantic, Indian Ocean, Mediterranean and South China Sea as well as other less developing countries and climate vulnerable nations.

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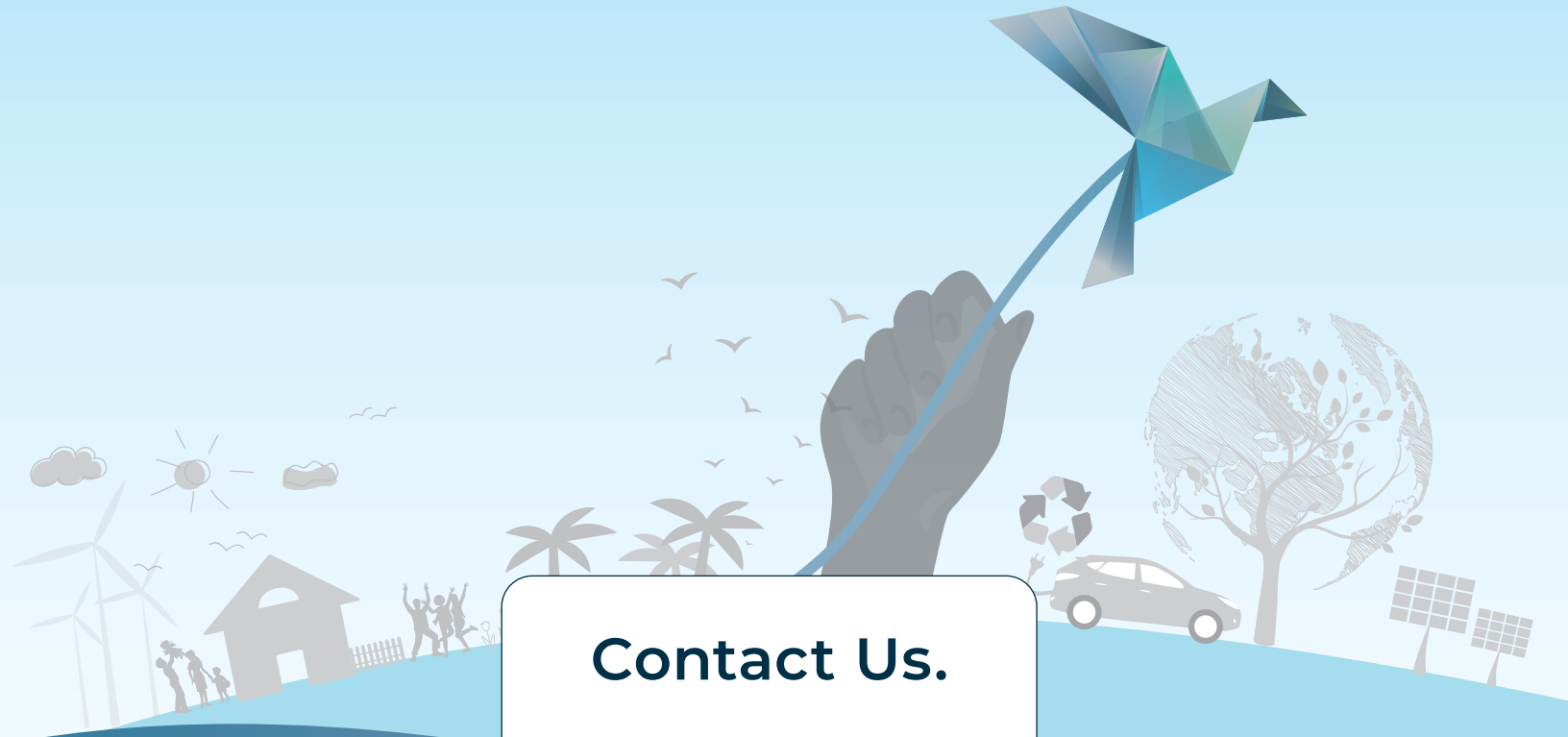

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