CARIBBEAN DEVELOPMENT BANK

TWO HUNDRED AND NINETY-SECOND MEETING OF THE BOARD OF DIRECTORS

TO BE HELD VIRTUALLY

DECEMBER 10, 2020

PAPER BD 105/20

COUNTRY ENGAGEMENT STRATEGY 2020-2024 THE COMMONWEALTH OF DOMINICA

The attached Country Engagement Strategy (CES) sets out the strategic direction for the Caribbean Development Bank's (CDB) engagement with the Government of the Commonwealth of Dominica over the period 2020-2024. The CES is guided by the overarching objectives of the high-level National Resilience Development Strategy – Dominica 2030, for delivering inclusive and sustainable growth, and proposes a sectoral level programme of assistance that aligns with the priorities articulated in its accompanying Climate Resilience and Recovery Plan 2020-2030 (CRRP) to build resilience against multidimensional shocks. The CRRP aims to translate the country's strategic vision to "build the first climate resilient nation in the world" into a concrete set of actions. Attaining a "Climate Resilient Dominica" is an ambitious goal that implies a major shift in the approach to economic development, and will require significantly reducing the impact of, and time to recover from, climatic and other natural shocks, as well as improving the overall socioeconomic development trajectory of the country. The CES seeks to help strengthen the framework for delivering on this long-term goal, as well as addressing the urgent need arising from the impact of the Coronavirus Disease 2019 (COVID-19).

- 2. The CES rests on three strategic pillars: (a) enhancing economic outcomes through resilient infrastructure; (b) strengthening human capital and competitiveness; and (c) crisis response and improving economic and environmental resilience. The programme of assistance, which includes policy-based support, is designed to achieve the following outcomes: (i) improved and climate resilient water supply and wastewater infrastructure; (ii) increased efficiency, improved resilience and safety in the road sector; (iii) improved quality, relevance, and effectiveness of the education system; (iv) improved managerial and operational capacity of Micro, Small and Medium-Sized Enterprises; (v) a more transparent and effective public financial management system; (vi) increased resilience to climate change and disaster risks and impacts; and (vii) effective response and recovery from COVID-19. Gender equality, environmental sustainability, good governance, and digital transformation will be mainstreamed in CDB's interventions. An indicative resource envelope of one hundred and five million, six hundred thousand United States dollars (USD105.6 mn) has been estimated to support the programme of assistance over the CES period 2020-2024.
- 3. The proposed strategy is aligned with CDB's Strategic Objectives of building social, economic, and environmental resilience. The Strategy was formulated through a broad consultative process, is results oriented, and incorporates lessons learned to ensure development effectiveness. The CES also aligns with the proposed overarching goal and agreed operational themes under the tenth replenishment of the Special Development Fund.
- 4. The Board is asked to approve CDB's CES for the Commonwealth of Dominica for 2020-2024.



CARIBBEAN DEVELOPMENT BANK

STAFF REPORT

COUNTRY ENGAGEMENT STRATEGY PAPER (2020-2024) THE COMMONWEALTH OF DOMINICA

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Considered at the Two Hundred and Ninety-Second Meeting of the Board of Directors held virtually on December 10, 2020.

(BD 105/20)

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DECEMBER 2020

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ABBREVIATIONS

BMCs - Borrowing Member Countries

bn - billion

BNTF - Basic Needs Trust Fund CARICOM - Caribbean Community

CARTAC - Caribbean Technical Assistance Centre

CBI - Citizenship-By-Investment

CCRIF SPC - Caribbean Catastrophe Risk Insurance Facility Segregated Portfolio Company

CDB - Caribbean Development Bank

CERC - Contingency Emergency Response Component

CES - Country Engagement Strategy

cm - centimetres

COVID-19 - Coronavirus Disease 2019 CPA - Country Poverty Assessment

CREAD - Climate Resilience Execution Agency for Dominica

CRRP - Climate Resilience and Recovery Plan

CSP - Country Strategy Paper

CTCS - Caribbean Technological Consultancy Services

DRM - Disaster Risk Management
DRR - Disaster Risk Reduction
EE - Energy Efficiency

ECPCGC - Eastern Caribbean Partial Credit Guarantee Corporation

EU - European Union

FAO - Food and Agriculture Organisation

FCDO - Foreign, Commonwealth and Development Office

GBP - Pound Sterling

GCRI - Global Climate Risk Index
GDP - Gross Domestic Product
GM - Gender Mainstreamed

GOCD - Government of the Commonwealth of Dominica

HDR - Human Development Report

ICTs - Information and Communication Technologies

IDB - Inter-American Development Bank
 IMF - International Monetary Fund
 IRL - Immediate Response Loan

km - kilometres m - metres

M&E - Monitoring and Evaluation

mn - million

MOE - Ministry of Education MOF - Ministry of Finance

MPW - Ministry of Public Works and Digital Economy
MSMEs - Micro, Small and Medium-sized Enterprises

NDC - Nationally Determined Contribution
NDM - Natural Disaster Management
NLUP - National Land Use Policy

NPDP - National Physical Development PlanNRDS - National Resilience Development Strategy

OAS - Organisation of American States
OCR - Ordinary Capital Resources

OECS - Organisation of Eastern Caribbean States

ORM - Office of Risk Management

PBL - Policy-Based Loan PBO - Policy-Based Operation

PEFA - Public Expenditure Financial Accountability

PFM - Public Financial Management
PRC - People's Republic of China
PwD - Persons with Disabilities
RCF - Rapid Credit Facility
RE - Renewable Energy

RRLs - Rehabilitation and Reconstruction Loans

SDF - Special Development Fund SDGs - Sustainable Development Goals

SLR - Sea Level Rise

STEM - Science, Technology, Engineering and Mathematics

TA - Technical Assistance
TS - Tropical Storm

TVET - Technical, Vocational Education, and Training

UK-CIF - United Kingdom Caribbean Infrastructure Partnership Fund

UN - United Nations

UNCRPD - United Nations Convention of the Rights of Persons with Disabilities

UNDP - United Nations Development Programme

UNICEF - United Nations Children's Fund
UWI - University of the West Indies

WB - World Bank

XCD - Eastern Caribbean Dollars

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	2015	2016	2017	2018	2019
REAL PER CAPITA INCOME (Constant Prices, US\$)	6,241.7	6,399.1	5,789.3	5,820.1	6,266.6
GROSS DOMESTIC PRODUCT					
Constant GDP at 2012 Prices (\$ mn)	1,186.4	1,216.7	1,134.0	1,160.5	1,201.3
GDP at Current Market Prices (\$ mn)	1,460.0	1,555.8	1,403.6	1,487.9	1,572.4
Constant GDP (Annual % Change)	-2.7	2.6	-6.8	2.3	3.6
MONEY AND PRICES (Annual % Change)					
Consumer Prices (end of period)	-0.7	0.7	-1.5	4.0	0.1
Money Supply (M2)	4.0	6.0	18.3	1.4	-6.3
Credit to the Private Sector	0.3	2.9	-1.6	-1.5	-6.0
PUBLIC FINANCES (% of GDP)					
Revenues and Grants	29.7	49.6	45.2	50.0	41.4
Expenditures	31.4	35.8	50.2	57.9	58.3
Overall Surplus/ (Deficit)	-1.7	13.9	-5.0	-7.9	-16.9
Primary Surplus/(Deficit)	0.0	15.6	-3.4	-5.9	-14.6
Central Government Debt	63.2	55.9	62.8	64.0	67.5
BALANCE OF PAYMENTS					
Exports of Goods and Services (\$ mn)	49.6	46.9	41.6	29.6	37.7
Imports of Goods and Services (\$ mn)	60.4	57.2	61.1	78.7	70.9
Current Account Balance (\$ mn)	-4.7	-7.7	-8.8	-44.6	-28.0
Foreign Direct Investment Net Inflows (% of GDP)	-3.5	-7.2	-4.3	-14.3	-6.2
Estimated Tourism Expenditure (\$ mn)	337.0	276.2	203.4	220.6	284.7
AVERAGE EXCHANGE RATE					
XCD per USD	2.7	2.7	2.7	2.7	2.7

Source: GOCD, Eastern Caribbean Central Bank.

Social and Environmental Data

	2015	2016	2017	2018	2019
POPULATION					
Total Population	71,185	71,379	67,408	69,573	71,808
Crude Birth Rate (per 1,000 people)	n.a.	n.a.	n.a.	n.a.	n.a.
Life expectancy at birth, Total (years)		11.6.	11	11	11141
Female	n.a.	n.a.	n.a.	n.a.	n.a.
Male	n.a.	n.a.	n.a.	n.a.	n.a.
EDUCATION					
School Enrollment Ratio (No.)					
Pre-primary (gross)	n.a.	79.7	73.7	72.3	71.9
Primary (gross)	n.a.	94.1	89.8	83.9	80.1
Secondary (Net)	n.a.	91.2	91.2	98.1	81.6
Pupil-Teacher Ratio	11.4.	71.2	71.2	70.1	01.0
Primary	14.0	13.1	13.4	11.5	11.7
Secondary	10.7	11.0	11.1	9.2	9.8
LABOUR FORCE					
Unemployment Rate (%)	n.a.	23.0	n.a.	n,a,	n.a
Male	n.a.	n.a.	n.a.	n,a,	n.a
Female	n.a.	n.a.	n.a.	n,a,	n.a
HEALTH					
Current Health Expenditure (% of GDP)	5.4	5.2	5.9	5.5	5.5
Current readin Experientare (% of GDT)					
HUMAN DEVELOPMENT INDEX	0.732	0.729	0.729	0.723	0.724
ENVIRONMENT					
Forest Area (% of land area)	57.8	57.4	n.a.	n,a,	n.a
ICT PENETRATION					
Individuals using the Internet (% of population)	65.0	67.0	69.6	n,a,	n.a
Fixed broadband subscriptions (per 100 people)	21.3	21.7	21.6	16.1	n.a.
Fixed telephone subscriptions (per 100 people)	28.9	18.7	18.1	3.7	n.a.
Mobile cellular subscriptions (per 100 people)	108.5	110.0	105.3	105.8	n.a.

Sources: World Development Indicators, GOCD, Human Development Report 2019.

n.a. Not available

Data as at October 2020

GENDER MARKER SUMMARY

Gender Marker	Analysis	Design	Implementation	Monitoring and Evaluation	Score	Code
	1.0	0.5	1.0	0.5	3.0	GM^1

¹ Gender Mainstreamed (GM): The Country Engagement Strategy is Gender Mainstreamed and has the potential to contribute significantly to gender equality. See Appendix 1 for the Gender Marker Analysis.

EXECUTIVE SUMMARY

1. The Country Engagement Strategy (CES) articulates the programme of support and planned interventions of the Caribbean Development Bank (CDB) for the Commonwealth of Dominica (hereafter Dominica) over the period 2020-2024. Its timeframe coincides with the expected parliamentary term in Dominica¹, as well as the tenth replenishment of CDB's Special Development Fund (SDF). The CES responds to Dominica's development priorities and is aligned with CDB's Strategic Objectives of building social, economic and environmental resilience, and the cross-cutting objectives of good governance, regional cooperation and integration, gender equality, and digital transformation.

Country Development Context

- 2. Dominica is among the most vulnerable countries in the world. Throughout its history, the country has suffered several economic and natural hazard shocks that have shaped its social and economic landscape. More recently, Tropical Storm Erika in 2015 and Hurricane Maria in 2017, caused loss of human life and significant destruction to property, livestock, and crops. In response, the Government of the Commonwealth of Dominica (GOCD/the Government) recognised that building resilience to the effects of climate change must be the country's number one development imperative.
- 3. Economic activity in Dominica is driven by agriculture, construction, and tourism services. Economic growth over the 2000-2019 period averaged 1.5%, but over the last 10 years has slowed to 0.4%. At the same time, due to the continual disruptive effects of natural hazards, with particularly adverse effects on the agricultural sector, volatility of aggregate output has been substantial. Buoyed by ongoing hurricane-related reconstruction and growth in the tourism and agriculture sectors, the economy had been recovering strongly, recording growth in gross domestic product (GDP) of 5.7% in 2019. This is at risk of reversal because of the impact of the Coronavirus Disease 2019 (COVID-19) pandemic on lives, livelihoods, and the economy. The COVID-19 outbreak, and the public health measures to contain its spread, will cause the economy to contract in 2020. While the country's medium-term growth outlook is expected to improve, deterioration in GOCD's fiscal position and heightened economic uncertainty in the short term present real risks.

National Priorities

4. GOCD is committed to achieving sustainable growth and development, in line with the country's National Resilience and Development Strategy – Dominica 2030 (NRDS), which is operationalised by the Climate Resilience and Recovery Plan 2020-2030 (CRRP). Resilience priorities are focused on six result areas: (a) strong communities; (b) robust economy; (c) well-planned and durable infrastructure; (d) enhanced collective consciousness; (e) strengthened institutional systems; and (f) protected and sustainably-leveraged natural, and other unique, assets.

Caribbean Development Bank in Dominica and Lessons Learnt

5. Loan and grant approvals have totalled two hundred and eighty-eight million three hundred thousand United States dollars (\$288.3 mn) over the period 1970-2020, of which \$254.3 mn has been disbursed. CDB has provided funding for a range of projects and programmes, mainly in the areas of infrastructure development and education. In the last decade, there have been some years when resource flows were negative because disbursements have been low. The main reasons have been weak project implementation capacity and the effects of natural disasters. Given the past challenging context, the proposed CES reflects lessons learned. Going forward, CDB will continue to focus on improving

¹ General elections were held in Dominica on December 6, 2019.

preparedness for extreme weather events and intends to help address capacity weaknesses to improve implementation rates. Flexibility and realism are also built in the CES through a smaller number of goals that can be realistically achieved over the strategy period, taking care to coordinate or harmonise with the plans of other development partners. The CES also exploits opportunities to forge stronger partnership with key development partners to support government priorities.

Country Strategy 2020-2024: Proposed Pillars and Expected Outcomes

6. The CES rests on three pillars: (a) enhancing economic outcomes through resilient infrastructure; (b) strengthening human capital and competitiveness; and (c) crisis response and improving economic and environmental resilience. The indicative programme of assistance has been designed to achieve the following outcomes: (i) improved and climate resilient water supply and wastewater infrastructure; (ii) increased efficiency, improved resilience and safety in the road sector; (iii) improved quality, relevance, and effectiveness of the education system; (iv) improved managerial and operational capacity of Micro, Small and Medium-sized Enterprises (MSMEs); (v) more transparent and effective public financial management (PFM) system; (vi) increased resilience to climate change and disaster risks and impacts; and (vii) effective response and recovery from COVID-19. The proposed programme will be delivered through a mix of direct financing (including policy-based budget support) and technical assistance (TA) that complements the efforts of other development partners and GOCD.

Resource Envelope

7. The indicative resource envelope is estimated at \$105.6 mn. Most of this amount is made up from a small number of interventions, reflecting CDB's emphasis on effective implementation. The envelope includes \$20 mn in policy-based support for Dominica's efforts to manage the COVID-19 fallout, as well as build environmental resilience following recent natural hazard events. The CES will be implemented through several interventions financed mainly by concessional resources such as the United Kingdom Caribbean Infrastructure Partnership Fund (UK-CIF) and the SDF. GOCD will also be able to utilise sub-loans from a proposed line of credit (LOC) to CDB by the Inter-American Development Bank (IDB) to help mitigate COVID-19 impacts. Where possible, CDB will blend these funds with Ordinary Capital Resources (OCR). TA will be used to build capacity and support institutional strengthening and climate resilience initiatives.

Results Monitoring

8. Strategy implementation and sector outcomes will be monitored within a Results Framework. Monitoring will entail regular stock takes between CDB and GOCD, and a mid-term review. These will be used to review considerations underpinning the strategy, country/sector implementation progress, and the effectiveness of CDB's interventions with a view to making changes where necessary. The current difficult economic climate could impact strategy implementation. These monitoring tools will help facilitate flexibility in the strategy to adjust the scope of the programme and to re-prioritise, if necessary, with a view to streamlining the programme, retaining those interventions for which there continues to be strong government commitment. CDB will update the CES results framework if a revision of the Government's development targets requires it. As far as possible, sex-disaggregated data and gender-sensitive indicators will be used to allow for the monitoring of gender inequality (see Appendix 1). An end-of-strategy review will be conducted in 2024. The achievement of expected outcomes of the CES will not only depend on the CES proposed assistance programme but will be complemented by activities supported by GOCD and other development partners.

Risks and Mitigating Actions

9. The main risks that may affect the implementation of the proposed CES fall under the following risk categories: (a) credit risk; (b) liquidity risk; and (c) operational risk. CDB has identified measures to help mitigate these risks, including: (i) close monitoring of fiscal developments and regular policy dialogue on macroeconomic management; (ii) capacity building and institutional strengthening; and (ii) climate change resilience in all infrastructure interventions.

1. COUNTRY DEVELOPMENT CONTEXT

1.01 Dominica is among the most vulnerable countries in the world¹². The country is vulnerable to a wide range of natural hazards (mainly earthquakes, hurricanes, storm surges, extreme rainfall events, landslides and flooding), and to climate change (increasing temperatures, changing rainfall patterns, increased frequency and intensity of extreme weather events, and sea-level rise [SLR]). The majority of the social and economic infrastructure and settlements are located on, or near, the narrow coastal areas where most of the limited flat land is available. The coastline is particularly prone to storm surge, SLR, and flooding.

1.02 Throughout its history, Dominica has suffered several economic and natural hazard shocks that have shaped its social and economic landscape. Hurricane David in 1979, for which Dominica was mostly unprepared having not experienced a major tropical cyclone since 1930, caused aggregate output to contract by 18.4% and marked the beginning of an outward migration wave. More recently, Tropical Storm (TS) Erika in 2015 and Hurricane Maria in 2017 caused substantial damage and loss, estimated at 90% and 226% of GDP, respectively. The impacts of Hurricane Maria were severe for the country's economy, as well as the human development of its citizens, and affected Dominica's productive, social, and infrastructure sectors.

1.03 Economic activity in Dominica is driven by agriculture, construction, and tourism, which contributes to activity in other sectors such as transport, storage and communications, and wholesale and retail trade. Economic growth over the 2000-2019 period averaged 1.5%, but over the last 10 years has slowed to 0.4%. At the same time, due to the disruptive effects of natural hazards, volatility of aggregate output has increased³. The Ross University School of Medicine permanently relocated from Dominica to Barbados during 2019 due to extensive damage to its campus after Hurricane Maria. Buoyed by ongoing reconstruction and growth in the tourism and agriculture sectors, the economy recovered strongly in 2019, growing by 3.6% (see Country Data). The COVID-19 outbreak and the loss of economic activity, particularly within tourism, means that the economy will contract in 2020. Also, GOCD's fiscal position Much of the post-2017 reconstruction was funded by Citizenship-By-Investment is weakening. Programme (CBI) receipts, which accounted for 38% of total revenue in 2018. However, these receipts are unpredictable. They declined by 41% to one hundred and sixty-four million Eastern Caribbean dollars (XCD164 mn) in 2019 and, despite increased marketing, are not likely to be much higher in 2020.

1.04 Dominica was ranked 98 out of 189 countries in the 2019 Human Development Report (HDR)⁴, and was in the 'high' human development category. The last poverty assessment in 2009, measured poverty at 28.8%. Absolute poverty, as measured by the indigence rate, was 3.1%; and 11.5% were vulnerable to poverty⁵. Poverty levels are likely to have risen since then. Data simulations after Hurricane Maria suggested that more than half of the non-poor population in the vulnerable parishes could be expected to fall into poverty. The *Post-Disaster Needs Assessment: Hurricane Maria* estimated that the poverty head

¹ The Global Climate Risk Index 2019 (GCRI) Report ranked Dominica third among the top 10 countries most affected by extreme weather events in 2017.

² For a summary of the literature, see James R., Kaidou-Jeffrey D., and Peters A. C. (2019). Population Decline and Climate Change Migration: The Case of Dominica, CDB Mimeo. Ram J., Cotton J. J., Frederick R., and Elliot W., Measuring Vulnerability: A Multi-Dimensional Vulnerability Index for the Caribbean, CDB Working Paper No. 2019/01, ranks Dominica third most vulnerable to natural hazards and climate change amongst CDB Borrowing Member Countries (BMCs).

³ The standard deviation of real GDP growth was 3.45 between 2000 and 2009, and 4.8 between 2010 and 2019.

⁴ 2019 HDR, United Nations Development Programme (UNDP).

⁵ Country Poverty Assessment (CPA) 2008/09 Vol I – Main Report, CDB, 2009.

count would increase from 28.8% to 42.3%, while the indigent could double from approximately 2,250 to 4,700 persons.

- 1.05 Many of the poor in Dominica are working poor. Among the most vulnerable groups are women, children, and youth (see Appendix 2). These vulnerable groups will most keenly feel the significant social impacts of the COVID-19 pandemic through the loss of employment, income, and livelihoods. In addition, remittances from abroad, worth about 8.5% of GDP, are likely to fall due to increased unemployment of the diaspora.
- 1.06 A vulnerability needs assessment after Hurricane Maria reported a reduction in the number of households to about 19,000, approximately 7,000 less than reported in the 2011 Population Census, due to migration and aggregation. The report estimated that women-headed households represent 47% of total households surveyed. Over the years, the country's fertility rate has been relatively low, which when combined with out-migration (mostly women of working age) results in a declining and ageing population.
- 1.07 Gender relations within society remain along traditional lines, with women retaining primary responsibility for home management and housekeeping. There are differential labour force participation rates, with women overrepresented in the services sectors⁶. At the highest levels of decision-making, males dominate among Government ministers while women account for the majority of Permanent Secretaries. Most parliamentarians, village councilors, and chairpersons of Village Councils are males. In the private sector, there are more male managers. In the education sector, gender stereotyping in the choice of subjects by boys and girls, and gender-biased performance at the secondary and tertiary levels, contribute to the occupational segregation in the labour market. These data indicate that despite significantly higher female educational attainment, the structure of decision-making in the society is still male dominated.

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⁶ Sources: CPA 2009, Poverty Reduction Action Plan 2014, National Policy and Action Plan, Country Gender Assessment (2014).

2. KEY DEVELOPMENT CHALLENGES AND PRIORITIES

- 2.01 Dominica's development priorities are underpinned by an overarching goal of becoming the first climate resilient nation in the world. Heavily exposed to high intensity weather-related events, social and economic vulnerability to natural hazards is recognised by GOCD as the most important development challenge, and building resilience to these hazards as the number one development imperative. The fallout from the COVID-19 pandemic, which started in early 2020, has not changed this priority. However, it has meant taking a broader view on what constitutes vulnerability and resilience.
- 2.02 Dominica's NRDS 2030 is characterised by Government's climate resilience goal, as well as the Sustainable Development Goals (SDGs). The NRDS identifies weaknesses in different sectors that it seeks to address in the pursuit of sustainable economic growth against the backdrop of global realities such as climate change. Its integrated framework identifies building blocks for achieving resilience across many areas and sectors such as: environmental management; rehabilitation and construction of physical infrastructure; enhancement of productive enterprises; private sector development and employment generation; and capacity building and human resource development.
- 2.03 The NRDS has multiple development objectives for a resilient Dominica: food security and self-sufficiency; resilient ecosystems and sustainable natural resource use; infrastructure resilience; sustainable settlements and communities; adequate social protection systems; comprehensive risk management framework; and economic empowerment and innovation.
- 2.04 Operationalisation of NRDS comes through CRRP 2020-2030. CRRP has three pillars of resilience:
 - (a) Climate Resilient Systems: developing systems and processes that improve the capacity of the country to adjust and adequately address the impacts of climate change. This effort includes developing a robust financial system that has the ability to support other core elements of resilience.
 - (b) **Prudent Disaster Risk Management (DRM) Systems:** developing mechanisms that improve decision-making based on evidence, and enhancing the capacity to manage the risks associated with climate-related disasters.
 - (c) **Effective Disaster Response and Recovery:** enhancing the capacity of Dominica to minimise the impact of disasters ex-post, while increasing the pace of recovery.
- 2.05 Within these pillars, CRRP is anchored on six results areas: (a) strong communities; (b) robust economy; (c) well-planned and durable infrastructure; (d) enhanced collective consciousness; (e) strengthened institutional systems; and (f) protected and sustainably-leveraged natural and other unique assets. The NRDS specifies 43 targets that must be achieved if Dominica is to become the first climate resilient nation in the world. CRRP converts these into 20 specific climate resilience targets framed within the 6 results areas. More details of these targets are provided in Appendix 3.
- 2.06 CRRP was developed by the Climate Resilience Execution Agency for Dominica (CREAD) and adopted by GOCD in 2020. GOCD established CREAD following Hurricane Maria. CREAD reports to the CREAD Policy Board, which is chaired by the Prime Minister of Dominica. CREAD's work programme is embedded in CRRP, and its expertise spans the six results areas. CREAD has three core functions:

- (a) Translating the vision of climate resilience into action.
- (b) Implementing high-impact priority projects.
- (c) Ensuring the sustainability of the climate-resilient journey after its mandate ends in 2022.
- 2.07 The CES focuses on a subset of the results areas identified in CRRP. These results areas are summarised as: (a) well planned and durable infrastructure; (b) robust economy; (c) strengthened institutional systems; and (d) environmental sustainability and DRM.

Infrastructure

- 2.08 Resilient infrastructure is fundamental to economic growth and sustainability. The key elements of focus in this area include roads and bridges, utilities (power, water, communications), houses and shelters, schools, health facilities, ports and airports, and coasts and riverbanks.
- 2.09 To deliver thenecessary interventions for resilience building and to maintain their effectiveness, CRRP identifies the need for capacity building within GOCD. It states that 'The Ministry of Public Works and The Digital Economy needs a core of experienced and certified professionals to meet this challenge and who can pass on these skills to other Ministries'. However, a 2013 organisational assessment⁷ of the Ministry of Public Works (MPW) highlighted significant weaknesses, many of which are still present in 2020. In the assessment, operations are characterised by daily 'fire-fighting', insufficient planning, and an absence of engineering and professional development training. MPW does not have systems in place to manage its resources in the most effective and efficient way. It is also under-resourced (in terms of staffing, equipment, working space and finances) and does not have sufficient capacity to adequately undertake its mandate of constructing and maintaining road and bridge infrastructure, and public buildings.
- 2.10 Following the passage of TS Erika and Hurricane Maria, the urgent need for a greater level of technical capacity within MPW became even more apparent. In 2015, CDB funded two engineering consultants to support GOCD with bridge and drainage design, and surface water drainage and coastal hydraulics. This contributed to some longer-term capacity building. Responsibility for implementation of large projects has moved to CREAD, but concerns about delivery remain in the absence of some key skills. GOCD is actively discussing support for project implementation and long-term capacity building within the institutional framework.
- 2.11 Dominica's topography creates significant engineering challenges to reducing infrastructure vulnerability to natural hazards and climate change impacts. The island has one of the highest drainage densities in the world, with some 365 rivers flowing in deep, narrow valleys over short distances to the sea. The many steep slopes and the nature of materials underlying them, are among the primary conditions favoring landslide development. Landslides and high-velocity debris flows, precipitated by extreme rainfall events, are among the main reasons for gradual and catastrophic infrastructure failure.
- 2.12 The primary water source for the greater Roseau⁸ area is subject to seasonal flow fluctuations that impact reliability of supply. The river water is also subject to periods of extreme turbidity, resulting in the closure of the intake (and consequently disruption of service) to avoid siltation of the supply lines. Increasing pressure on the water supply system to meet demand requirements, coupled with significant

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⁷ Organisational Assessment under the Regional Technical Cooperation Programme for the Improvement of Policy and Institutional Framework in the Organisation of Eastern Caribbean States (OECS), 2013.

⁸ Roseau is the capital of Dominica.

vulnerability to the effects of climate change, necessitate that an assessment of the absence of redundancy in the network be conducted, and a structured approach to mitigating the associated risks be implemented.

- 2.13 Condition surveys have confirmed that only 25% of the main road network could be classified as good, and less than 10% of feeder roads achieved a rating of fair. The main reasons for the unsatisfactory road conditions have been insufficient funding, poor or non-existent road sector policies, and inadequate management and implementation of road maintenance programmes. MPW advises that, of the 910 kilometres (km) of roads within the network, some 682 km require reconstruction and rehabilitation to provide better service and a higher degree of safety.
- 2.14 The population of Roseau has declined in the last three decades⁹, largely due to migration, expansion of amenities into rural settlements, and deterioration of housing conditions. One of the most critical challenges is that the quality of its infrastructure is insufficient to support a modern economy. Concerns include a lack of adequate drainage, road infrastructure and parking facilities, many dilapidated structures, poor traffic management and road signage, and poor street lightning and security. Arresting this population decline would help revitalise economic growth. GOCD, through its 'Roseau Enhancement' initiatives, has set out a short-to-medium term action plan (January 2020) to initiate the necessary actions required to address the outlined constraints. The Action Plan is governed by five strategic goals: (a) aesthetics and beautification; (b) business development and job creation; (c) improving parking and relieving congestion; (d) upgrading infrastructure; and (e) welcoming the disabled. CRRP envisages longer-term solutions through a resilient Dominica physical development plan.
- 2.15 The availability of a clean, reliable, and affordable electricity supply is vital to improve environmental and economic resilience. GOCD wants to end the over-reliance on imported diesel fuel for power generation through the increased use of indigenous renewable energy (RE) sources, such as solar and geothermal energy, building on important contributions from hydropower over the years. This is also a key dimension of the country's Nationally Determined Contribution (NDC) actions to reduce emissions and adapt to the impacts of climate change. To this end, GOCD has been pursuing the development of a geothermal energy power plant, targeting World Bank (WB) funding under a public sector-led approach. In early 2020, GOCD switched to a public-private partnership approach and has established a strategic partnership with a French consortium of companies, which is now leading the development. The consortium has since begun discussions with CDB¹⁰ regarding funding for the construction of the plant. Upon completion, the targeted 10-megawatt plant would allow for greater energy security by displacing imported diesel fuel and providing energy at lower and more stable prices, thereby contributing to improved economic competitiveness and resilience. In addition, GOCD's strategy includes the development and incorporation of micro grids and using solar and battery storage, along with solar photovoltaic-distributed generation. This will build flexibility in the grid and increase resilience, especially in remote communities.

Robust Economy - Access to Skills

2.16 For a resilient Dominica, CRRP articulates a "Robust Economy" as one which has the ability to limit the magnitude of immediate production losses to reconstruct and recover quickly. This ability rests on key elements such as access to skills, access to finance, diversification of revenue streams, and risk transfer. The NRDS highlights the important role that human capital plays in building and maintaining resilience. CRRP takes this further, noting the increasing importance that technology will play in developing Dominica's economy beyond the medium term, by bringing high-value jobs that are resilient to climate change. Technologically-based economic expansion would, through a more diverse economic base,

⁹ According to the official censuses, Roseau's population was: 16,065 in 1991; 14,847 in 2011; and 14,725 in 2011.

¹⁰ It has been communicated that WB will still fund aspects of the geothermal energy development, including a reinjection well and transmission line.

increase the demand for a more diverse skill set and strengthen economic resilience. Therefore, the education system has an important role to play.

- 2.17 While the education system has achieved some key goals, such as universal access and gender parity in provision of basic education, key sector constraints continue to negatively impact the responsiveness and effectiveness of the system in addressing the human resource needs of the economy. There are still issues related to limited access and coverage at the early childhood education and tertiary levels, which were exacerbated by the closure of schools following the COVID-19 outbreak. There is also insufficient alignment of training with labour market needs and a low level of teacher quality, particularly in secondary education where only approximately 50% of teachers are trained.
- 2.18 Persistent gender differentiation continues to characterise access, quality, and relevance of the education programmes and services. Key issues remaining include: (a) lower performance levels for males; (b) significantly more women accessing tertiary and post-education programmes; and (c) gender stereotyping in subject selection, particularly for science, technology, engineering and mathematics (STEM) and Technical and Vocational Education and Training (TVET) subjects at the upper-secondary and post-secondary levels.
- 2.19 Addressing the major constraints is set out in CRRP and the Ministry of Education and Human Resource Development's (MOE) Strategic Plan (2018-2023). To modernise facilities to increase resilience, GOCD is receiving support from UNDP, Canada, and China. Other necessary interventions include: (a) accelerating the provision of gender-responsive, demand-driven skills development; (b) strengthening inclusive education for learners at-risk; (c) improving teacher effectiveness; and (d) expanding equitable access to early childhood development and tertiary education provision, while optimising the use of appropriate information and communication technologies (ICTs).

Robust Economy – Private Sector Development

- 2.20 MSMEs make a significant contribution to Dominica's economic and social development, given their significant level of productive activity. MSMEs provide employment opportunities for a large number of persons. However, MSMEs face challenges. Dominica ranks 111 of 190 countries in the 2020 Ease of Doing Business survey. Measures that would improve the business environment include: (a) provision of taxation and other incentives to drive innovation; (b) capacity building within MSMEs and the organisations that support them; (c) restructuring of the Dominica Export Agency, to be supported by the Food and Agriculture Organisation (FAO) and by the Organisation of Eastern Caribbean States (OECS), to better support agriculture and manufacturing; and (d) improvement of access to finance. In addition, MSMEs would benefit from improved capacity in marketing, business management and disaster resilience, and from strengthening research and development to better utilise local raw materials in product creation. As Dominica recovers from COVID-19, boosting MSMEs will be critical for improving the medium-term outlook and preserving jobs.
- 2.21 The Ministry of Commerce, Enterprise and Small Business Development is developing an MSME policy with support from the Organisation of American States (OAS). Integrated into this policy and the accompanying legislative framework will be measures to deal with the issue of disaster preparedness, climate change, and resilience of the MSME sector. MSMEs' access to finance for energy efficiency (EE) and RE investments has been improving through a LOC of \$0.5 mn from CDB with the Dominica Agricultural Industrial Development Bank.
- 2.22 In addition, the Eastern Caribbean Central Bank and WB are supporting financial intermediation for MSMEs through the recently-launched Eastern Caribbean Partial Credit Guarantee

Corporation (ECPCGC). The governments of the six independent Eastern Caribbean Currency Union countries, including Dominica, have each injected \$2 mn to fund the operations of ECPCGC. It will guarantee 75% of loans up to a maximum of XCD300,000. These loans would assist in the growth and development of MSME businesses. CDB is in discussions with ECPCGC to provide capacity building support.

Strengthened Institutional Systems – Governance

- 2.23 The NRDS states that a sound macro-economic framework and PFM system are keys to enhancing growth and economic resilience. A strengthened institutional system is defined in CRRP as the ability to effectively and efficiently deliver on Government's comprehensive socio-economic development mandate, and to continue to operate during and in the aftermath of a disaster. The key elements of focus include data and decision-making protocols, policies, strategies, procedures, skills, and resilience-linked budget setting and performance management within the public sector.
- 2.24 The last Public Expenditure and Financial Accountability (PEFA) assessment¹¹ for Dominica was conducted in 2016, and covers the period 2012-15 (see Appendix 4 for a summary). Dominica performs well in most areas related to predictability and control in budget implementation, debt management, and accounting for revenue. Administration and accounting systems work well and there are mechanisms in place to ensure consistent resource allocation and spending constraint. The budgetary process, transparency in public finances, and management of assets and liabilities are close to the regional average.
- 2.25 However, the PFM system is particularly weak in two critical areas: (a) External Scrutiny and Audit; and (b) Procurement Management, both of which undermine GOCD's ability to build fiscal resilience. The 2016 PEFA report states that "External oversight of public finances by the External Auditor and Parliamentary Scrutiny levels is weak". GOCD, working with the Caribbean Technical Assistance Centre (CARTAC), has prepared new and modern PFM legislation, in line with modern and consistent PFM frameworks being introduced across the Caribbean. This legislation has not yet been enacted, with GOCD focusing on procurement, and on other reforms such as a Medium-term Economic and Fiscal Framework, including improvements in debt management and a fiscal rules framework.
- 2.26 GOCD passed new procurement legislation in 2012, but there are no accompanying regulations, and compliance is generally lacking. Contracts are typically awarded through competitive bidding, with high dollar purchases being advertised. However, there is no tracking mechanism that can support the claims. Additionally, no independent administrative complaint resolution exists.

Environmental Sustainability, Climate Change and Disaster Risk Management

- 2.27 Dominica's rugged topography is a major factor influencing development and land use. Although an estimated 20% of the island's total land area is legally protected as national parks or forest reserves¹², some environmentally-sensitive areas are being degraded largely due to unregulated land development and inappropriate land use practices, including encroachment from new residential developments and informal settlements.
- 2.28 The country's vulnerability to the effects of climate change and natural disasters is well documented. Between 1975 and 2017, eighteen major natural hazards affected Dominica. The most recent storms, TS Erika (2015) and Hurricane Maria (2017), caused extreme damage across all sectors and access along essential roads, isolating or displacing settlements and businesses. The 2019 GCRI ranked Dominica

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¹¹ Conducted by CARTAC.

¹² OECS, 2014.

third among the top 10 countries most affected by extreme weather events in 2017. The 2017 GCRI report had already ranked Dominica as the second country most affected worldwide by climate impacts in 2015. Dominica's vulnerability to the impacts of climate change is of concern because the majority of social and economic infrastructure and settlements are located on or near the narrow coastal areas where most of the limited flat land is available. Approximately 90% of the island's population resides along the coast¹³. Dominica's rugged landscape creates significant engineering challenges to reducing infrastructure vulnerability to natural disasters and climate change.

- 2.29 Cognisant of the need to increase the country's resilience to disasters and climate change impacts, GOCD has over the years established several policy documents to promote more proactive approaches over the short, medium, and long term. In addition to CRRP, these include: the National Building Code¹⁴ (including the administrative requirements for implementation) and the National Building Guidelines¹⁵, approved by the Cabinet in 2019; the National Land Use Policy (NLUP) approved in 2015; a draft National Physical Development Plan (2016) (NPDP); and a National Adaptation Policy (2002).
- 2.30 The Low Carbon Climate Resilient Development Strategy (2012-2020) aimed at furthering Dominica's efforts in the transformation to a green economy is currently being updated to focus the country's low carbon development pathway. The NDC is also being revised with more robust outcomes to meet national climate action targets and SDGs. Several projects financed by various development partners, including CDB, are underway to increase resilience to climate change and disaster risks including actions to strengthen the Office of Disaster Management with the requisite legislation and resources, especially for data collection, monitoring and analysis. GOCD has also made progress in preparing comprehensive environmental legislation to strengthen institutional arrangements for environmental management. However, despite this progress, implementation of these policies, plans and strategies has been deficient. GOCD has a small civil service with limited numbers of experienced staff. Institutional capacity to integrate climate and DRM into sector planning and implementation is therefore inadequate and needs to be strengthened.

Responding to the COVID-19 Pandemic

2.31 TS Erika, Hurricane Maria, and the COVID-19 crisis have each had significant socio-economic impacts on Dominica. Each event has affected employment, livelihoods, and attempts to reduce poverty levels. In the case of COVID-19, this has been exacerbated by limits to economic activity from social-distancing measures, and the fall in inward remittance flows due to the global nature of the crisis. Deterioration in GOCD's fiscal position in 2020 presents risks, which could intensify in 2021. The loss of economic activity in 2020 means revenue loss and has created a large funding gap estimated at 22.6% of GDP. A key challenge has been to mobilise sufficient resources in 2020 to close the gap. The International Monetary Fund (IMF) has provided emergency assistance under its Rapid Credit Facility (RCF), and the WB repurposed some existing undisbursed balances from its active loans. Depending on the duration of the economic decline, additional borrowing may be required, and debt sustainability beyond 2020 may require fiscal adjustment. GOCD's debt sustainability efforts over the medium term will need to be

¹³ Global Facility for Disaster Reduction and Reovery, Dominica. https://www.gfdrr.org/dominica.

¹⁴ The 2015/16 OECS Building Code revision took into consideration a range of factors including: (a) new and improved structural design requirements and hazard maps for wind and seismic activity; (b) access provisions for the physically challenged; and (c) anticipated increases in the intensity and frequency of TSs and hurricanes. The Building Code also integrates EE provisions for buildings developed by the Caribbean Region Organisation for Standards and Quality with support from CDB.

¹⁵ The National Building Guidelines are based on the OECS Building Guidelines. The OECS Building Guidelines is a companion document to the OECS Building Code and is intended to facilitate safe and appropriate design of small buildings by non-professional designers.

supported by the utilisation of sustainable financing approaches and practices, and the adoption of a revised medium-term fiscal framework.

Caribbean Development Bank's Assessment of the Government's National Strategy

- 2.32 GOCD has developed a well-integrated and ambitious policy and planning framework. NRDS is a comprehensive document, which acknowledges that resources may not always be sufficient to pursue all the actions described. It is estimated to cost between XCD5.2 billion (bn) and XCD6.2 bn, or XCD500-XCD600 mn annually. The more-focused and more-implementable CRRP has prioritised 10 out of the 20 climate resilient targets in the NRDS. CRRP also acknowledges the need for capacity building, particularly in project preparation, procurement, and contract administration. Sector-specific capacity building is also necessary to support the results areas.
- 2.33 GOCD's plans, as articulated in CRRP, generally provide a relevant basis on which CDB can anchor its CES. The assessed national priorities and results areas identified reconcile with the key development challenges facing Dominica, and have strong links to key development levers such as poverty reduction and environmental sustainability that converges well with the SDGs, implying a high degree of strategic relevance. CRRP includes a results framework with targets, intermediate outcomes, and output milestones. However, there is less information on indicators. Having accurate baseline data and being able to collect and disseminate new data will be vital for effective monitoring and evaluation (M&E). CRRP notes that the Centre of Excellence for Data in Resilience Decision-making will play a critical role in managing data and tracking progress across CRRP from 2020-2030. GOCD's plans, as articulated in CRRP, generally provide a relevant and responsive basis on which CDB can anchor its intervention.

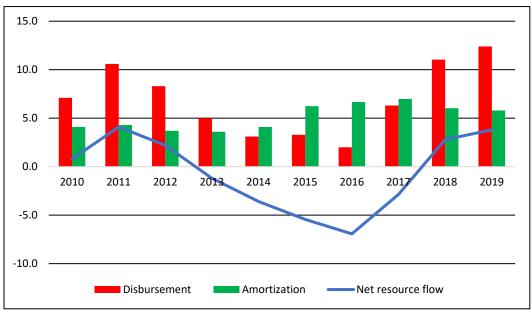
3. COUNTRY PORTFOLIO REVIEW AND LESSONS LEARNT

COUNTRY PORTFOLIO

3.01 By approvals, Dominica is the ninth largest beneficiary among CDB's BMCs. From 1970 to October 2020, approvals of loans, contingent loans, equity and grants totaled \$288.3 mn, of which \$254.3 mn had been disbursed. At October 2020, CDB's loan exposure to Dominica was approximately \$96 mn. Dominica's active portfolio consists of 6 projects with a total approved value of \$36.6 mn at the end of October 2020. Of these, \$14.2 mn (38.6%) has been disbursed. Performance of the country's portfolio improved in 2019 with a disbursement ratio of 31.5%, doubling its 2018 ratio of 14.6% ¹⁶. Notwithstanding, the portfolio continues to be affected by the slow implementation of some projects, mainly due to capacity issues, exacerbated following the 2015 and 2017 weather events.

3.02 As illustrated in Figure 3.1, net resource flows to Dominica were negative for 5 of the last 10 years. Between 2010 and 2012, a positive net resource flow reflected disbursements associated with the implementation of interventions programmed in the country strategy for that period. However, the net resource flows were negative between 2013 and 2017, indicating that disbursements were lower than repayments. Disbursements increased sharply following Hurricane Maria in 2017.

FIGURE 3.1: PORTFOLIO FLOWS (\$ mn)



Source: CDB.

¹⁶ The disbursement ratio is defined as the ratio between actual disbursed amounts and the disbursable amount in a particular reporting period.

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COUNTRY STRATEGY 2010-2012 AND POST-2012 INTERVENTIONS

- 3.03 The last approved country strategy for Dominica covered just over a two-year period, October 2010 to December 2012. Notwithstanding CDB efforts to commence strategy preparation since, there has not been a new strategy produced for several reasons, including country readiness and prioritisation. Such plans have stalled in the past, for example following storm damage in 2015 and 2017, as country priorities changed to focus on reconstruction and rehabilitation.
- 3.04 The two-year strategy was aligned with the country's own medium-term strategy for sustained growth and poverty reduction, as laid out in its rolling Growth and Social Protection Strategy (2006-2011). To help realise these objectives, the strategy contemplated interventions that would contribute to country sector level outcomes under five strategic priority areas: (a) releasing human resource capacity constraints in the public sector and strengthening economic management systems; (b) facilitating private sector development; (c) strengthening social development and cohesion; (d) upgrading economic infrastructure; and (e) strengthening environmental management and adaptation to climate change. The country strategy incorporated a results framework matrix with as many as 17 outcome statements and indicators, although without monitorable targets. The resource envelope was based on available soft resources in the amount of \$14 mn and OCR of between \$20 mn and \$26 mn, for a total envelope of between \$34 mn and \$40 mn. This relatively small envelope reflected the increasingly competitive environment at the time, especially with increasing bilateral assistance from China (People's Republic) and Venezuela.
- 3.05 During the strategy period there were approvals totaling \$23.4 mm (see Table 3.1). These included two projects that received the Board approval before the Country Strategy Paper (CSP), which was delayed because of General Elections. Most notable progress was made in improvements in the quality of economic infrastructure, with better roads constructed benefiting individuals and businesses. Private sector expansion was supported through the LOC to the Dominica Agricultural, Industrial and Development Bank, and educational outcomes were improved following the implementation of the Education Enhancement Project. TA was provided for the NLUP and NPDP, which contributed to GOCD's efforts to engage in proactive land use planning as a climate change adaptation measure.
- 3.06 Some of the risks identified in the CSP materialised and posed challenges for implementation of the planned projects. There were impacts of weather-related shocks, particularly TS Ophelia in 2011. Therefore, while the strategy sought to address adaptation to climate change, GOCD also had to focus on mitigation, which impacted other strategy priorities. During the strategy period there were emergency-type interventions, including two immediate response loans (IRLs) following extreme weather events. There were also two rehabilitation and reconstruction loans (RRLs), which included TA to improve mitigation (see Table 3.2). Disbursal of these RRLs was interrupted by Hurricanes Irma and Maria in 2017. Strategy (and other project) implementation was also limited by human resource capacity to effectively manage GOCD's programme.

TABLE 3.1: COUNTRY STRATEGY 2010-2012: LOAN APPROVALS AND DISBURSEMENTS
(\$ mn)

Project Name	Amount Approved	Amount Disbursed (as at October 31, 2020)	% Disbursed (as at October 31, 2020)
Approved 2	020-2012		
Upgrading Economic Infrastructure Road Improvement and Maintenance – Valley Roads – 2 nd Additional Loan	3.89	3.25*	100
Third Water Supply Project – Water Area-1 Network Upgrade	7.53	6.10**	100
Subtotal	11.42	9.35	100
Approved During (CSP Negotiatio	ons	
Facilitating Private Sector Development Eighth LOC	8.00	8.00	100
Strengthening Social Development and Cohesion Education Enhancement Project	4.00	4.00	100
Subtotal	12.00	12.00	100
TOTAL	23.42	21.35	100

Source: CDB.

TABLE 3.2: OTHER LOAN APPROVALS AND DISBURSEMENTS 2010-2012 (\$ mn)

Project Name	Amount Approved	Amount Disbursed (as at October 31, 2020)	% Disbursed (as at October 31, 2020)
Natural Disaster Management (NDM) – IRL – Layou Flood Event	0.75	0.75	100
NDM –RRL– Layou Flood Event	13.11	4.43	33
NDM – IRL – Tropical Storm Ophelia	0.75	0.75	100
NDM – RRL – Tropical Storm Ophelia	4.10	0.80	20
TOTAL	18.71	6.73	36.0

3.07 After 2012, CDB continued to support GOCD in a number of areas identified by the CSP, including private sector development and EE. Two new LOCs supported small businesses, one with a focus on improving EE and lowering costs to increase competitiveness. A revision in scope and an additional loan was approved to support reliable water supply, with greater emphasis on resilience. All three projects are still being implemented. The other main area of support was natural hazard responses (see Table 3.3).

^{*}Originally \$3.89 mn approved, but rescoped to \$3.25 mn. **Originally \$7.53 mn approved, but rescoped to \$6.1 mn.

TABLE 3.3: LOAN APPROVALS AND DISBURSEMENTS 2013-2019 (\$ mn)

	Amount	Amount Disbursed (as at June	% Disbursed (as at October 31,
Project Name	Approved	30, 2020)	2020)
Facilitating Private Sector Development	• •	, ,	,
Ninth Consolidated LOC	12.00	5.00	42
EE LOC – Pilot Project	0.50	0.25	50
<u>Upgrading Economic Infrastructure</u> Fleet Modernisation Project – LIAT (1974) Limited	2.40	2.40	100
Third Water Supply Project (Water Area-1			
Network Upgrade) Additional Loan	3.01	1.64	55
Subtotal	17.9	9.3	52.0
Natural Hazard Responses			
NDM – IRL – April 2013 Torrential Rainfall and Flood Events	0.75	0.75	100
NDM – IRL – December 2013 Torrential Rainfall and Flood Event	0.75	0.75	100
NDM – RRL – Layou Flood Event Additional Loan	2.23	0.60	27
NDM – IRL – TS Erika	0.75	0.75	100
RRL – TS Erika (Cancelled)	30.0	-	0
RRL – Hurricane Maria (Dominica Electricity Services Limited)	15.80	15.80	100
Subtotal	50.3	18.7	37.1
TOTAL	68.2	28.0	41.1

Source: CDB.

LESSONS LEARNT

- 3.08 The CES 2020–2024 builds on lessons identified from the review of the previous CSP and Dominica's portfolio:
 - (a) Climate Resilience and Development: The experiences from recent major climate-related disasters highlight the critical need to scale-up support to Dominica that places emphasis on establishing robust and comprehensive *ex-ante* resilience frameworks. The previous strategy articulated that building resilience to natural hazard risks requires measures for preparedness/mitigation and recovery. GOCD has placed disaster and climate resilience at the core of its development effort, and CDB will continue to support the disaster preparedness and mitigation actions in the country and to make provisions to respond to disasters when they occur. CDB will also develop partnerships and coordinate with other key development agencies working with Dominica to facilitate more impactful DRM outcomes.

- (b) Capacity Constraints: Capacity-building and institutional strengthening needs of executing agencies should be continuously assessed to adequately address implementation capacity constraints. CREAD should be responsible for not only implementing projects, but building effective and lasting capacity in MPW and in other ministries and agencies for sustainability when CREAD's remit ends in 2022. In addition, CDB must set realistic expectations for the implementation strategy period. Given the challenging context, it is advisable for the CES to be adaptable. The CES has been built around a smaller number of goals that can be realistically achieved, taking care to coordinate and harmonise with the plans of other development partners. The programme covers areas where CDB has developed strong policy dialogue with GOCD and has had strong engagement in the sectors.
- (c) **Country Engagement:** More regular engagement and policy dialogue with an array of counterparts are required. This is particularly important for promoting institutional reform. CDB will use the CES and portfolio review process to engage GOCD, and gauge how best it can assist with the implementation of CRRP more broadly. In addition, CDB intends to engage authorities through continual assessments of Dominica's macroeconomic and institutional framework and stands ready to provide TA to strengthen capacity in this area. Enhanced CES monitoring and reporting is a mechanism to help improve implementation and increase the likelihood of success.

4. <u>CARIBBEAN DEVELOPMENT BANK'S COUNTRY ENGAGEMENT STRATEGY</u> (2020-2024)

COUNTRY ENGAGEMENT STRATEGY AND ITS PROPOSED CONTRIBUTION TO COUNTRY OUTCOMES

- 4.01 The CES is aligned with GOCD's priority policy areas, including addressing the impact of COVID-19. The strategy is consistent with CDB's Strategic Objectives of building social, economic, and environmental resilience. It has been formulated collaboratively with GOCD, and reflects CDB's comparative advantage and expertise. It takes into consideration capacity constraints that will need to be addressed to realise sector outcomes. CDB will discuss TA options for ensuring effective implementation of projects and lasting capacity enhancement within MPW.
- 4.02 CDB's interventions will take account of debt sustainability. CDB will plan and design its operations to be consistent with GOCD's debt sustainability objectives and targets. The issue of debt sustainability now factors prominently as a key challenge as the COVID-19 pandemic has required many countries to finance additional expenditures to meet emergency needs that have worsened debt vulnerabilities. For Dominica, to help reduce the high risk of debt distress, GOCD is expected to enhance public debt management and transparency and approve a revised medium-term economic and fiscal framework, actions to help make the public budget more resilient and fiscally sustainable.
- 4.03 Therefore, CDB interventions will utilise available concessionary financing to ensure debt sustainability. Sources of such funds will be Dominica's SDF allocation¹⁷, as well as other concessionary funds, such as climate funds for interventions where climate change resilience and DRM planning are incorporated. A significant proportion of the resource envelope will be grant funds, mainly from UK-CIF. CDB will also be able to utilise a LOC from IDB, available to OECS countries to help them recover from COVID-19. GOCD has indicated that it intends to use some of this to support MSMEs, including the provision of loans for working capital. The line can also be used for health and social interventions. Blending of any of these resources with OCR will be possible.
- 4.04 With regards to energy, CDB could potentially support private sector investment in geothermal energy, using concessional resources mobilised under the CDB/IDB Sustainable Energy for the Eastern Caribbean Programme of CDB's GeoSmart Initiative.
- 4.05 Dominica will continue to be supported by grants from the Basic Needs Trust Fund (BNTF), which will fund projects to improve resilience through better water and sanitation, improved drainage, and education and human resource development.
- 4.06 In addition to the interventions being proposed, Dominica could also benefit from CDB's regional programmes.
- 4.07 The CES is premised on three broad strategic pillars: (a) enhancing economic outcomes through resilient infrastructure; (b) strengthening human capital and competitiveness; and (c) crisis response and improving economic and environmental resilience. Each pillar has priority areas aimed at contributing to particular sector outcomes in the result areas of CRRP. These outcomes are outlined in the Results Framework, which will guide the process of implementation (see Appendix 5). The strategy is underpinned by CDB's crosscutting themes of good governance, regional cooperation and integration, gender equality,

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¹⁷ Dominica is a Group 2 country, with access to concessional SDF resources. Dominica's indicative allocation for the Tenth Replenishment of the SDF (SDF 10) will be determined in 2021.

and digital transformation, which will be mainstreamed in CDB's operations where possible. Gender equality will be promoted through operations that deliver tangible benefits to women, particularly in institutional strengthening operations. The short-term COVID-19 response that the CES supports through a policy-based operation (PBO), includes time-bound income support and social protection measures to cushion the economic impact of the crisis on families and businesses, as well as other resilience-supporting actions. Given the uncertainties in the duration and depth of impacts of COVID-19, the CES retains flexibility to adjust to evolving needs and opportunities.

Pillar I: Enhancing Economic Outcomes through Resilient Infrastructure

Expected Outcome 1: Improved and Climate Resilient Water Supply and Wastewater Infrastructure

4.08 Access to clean water and adequate sanitation contributes to improved health and nutrition outcomes. At the same time, water supply and wastewater infrastructure are expected to become increasingly susceptible to the expected impacts of climate change, which will materialise with more frequent or more severe extreme events. CDB will support a Water Sector Strategic Development Plan, which will include transformational capital projects that contribute to the provision of climate-resilient water supply and sewerage services, and to capacity building in the sector. These projects will minimise post-disaster spending, increase reliability and operational effectiveness and secure long-term resilience, which will directly benefit the local economy, national resource security, and national economic growth.

<u>Expected Outcome 2: Increased Efficiency, Improved Resilience and Safety in the Road Sector</u>

4.09 Investments in connectivity, through the development of road infrastructure, are also critical to improve competitiveness and support the shift to a private sector driven growth model by lowering costs and improving access to markets, goods, and services for communities. CDB will support the transformation of the Loubiere to Grand Bay road. This project will minimise reoccurring maintenance and post-disaster spending, and help maintain macroeconomic stability.

Pillar II: Strengthening Human Capital and Competitiveness

Expected Outcome 3: Improved quality, relevance, and effectiveness of the education system

4.10 The CES will build on previous engagements in education. CDB will focus on skills development and support inclusive and high-quality education services. Specifically, CDB will strengthen STEM and TVET, with attention to disrupting traditional sex segregation for priority sectors, investing in teacher effectiveness and integrating ICTs in education, and enhancing services for inclusive education targeting learners at-risk. Through these initiatives, CDB will support an expanded supply of certified, skilled, and employable labour.

Expected Outcome 4: Improved Managerial and Operational Capacity of MSMEs

4.11 To promote private sector development, CDB will support MSMEs, particularly those operating within the manufacturing, agro-processing, Blue Economy, and creative industries. Support will be provided through collaboration with other regional MSME development agencies such as the OECS Business Competitiveness Unit, Caribbean Export Development Agency, and OAS, as well as national business support organisations. The support will include training and onsite TA to address administrative and/or operational problems to increase efficiency, enhance production capabilities, and improve product

or service quality. The areas of intervention will include record keeping, financial literacy and management, youth entrepreneurship, product development, business continuity planning, production practices, and service delivery. In addition, support will be provided to strengthen the institutional capacity of local business support organisations to enable them to deliver improved technical, financial, and business facilitation support to MSMEs. Opportunities to enhance digital technology use will be taken.

- 4.12 A proposed IDB LOC will also support MSMEs. The first component will help businesses affected by the pandemic to overcome temporary liquidity problems and maintain operations. This will include finance for working capital for the sectors hardest hit. Secondly, resources will be provided for production-oriented finance to support the recovery. This component will ensure that all suppliers in value-adding supply chains are protected.
- 4.13 CDB will provide TA to support capacity building in ECPCGC. In addition, CDB will consider further LOCs to the Dominica Agricultural Industrial and Development Bank. The current ninth LOC is expected to be fully disbursed towards the end of the CES period.

Pillar III: Crisis Response and Improving Economic and Environmental Resilience

Expected Outcome 5: More Transparent and Effective PFM System

- 4.14 CDB is providing support to improve procurement, starting with a new procurement act, and will work collaboratively with WB to support GOCD in producing new regulations. As part of preparative actions to gain access to emergency budget support to assist with COVID-19 responses, the CES provides TA to update this legislation, with further TA expected from WB to help draft new regulations. A draft amended bill has been prepared and is currently under review. GOCD intends to pass the legislation and approve the regulations in 2021. These reform actions are included within a programmatic budget support operation under implementation with WB.
- 4.15 CDB will consider further support, such as developing a procurement manual and standard bidding documents; and providing expert assistance to get the new system operational. CDB will, on a continual basis, engage in dialogue with GOCD and development partners such as the IMF, WB and CARTAC to help transition Dominica over the strategy period to a rules-based institutional macroeconomic management framework that will strengthen accountability and transparency, fortify governance through PFM and enhance the foundation for stability and resilience.

Expected Outcome 6: Increased Resilience to Climate Change and Disaster Risks and Impacts

- 4.16 Dominica is vulnerable to hurricanes, TSs and floods and must brace itself for even greater challenges, given that impacts of climate change are expected to intensify. CDB will continue to support GOCD's efforts to build capacity for climate change and disaster and environmental risk management through its portfolio and pipeline. The CES will support GOCD's efforts to adopt an integrated and more proactive approach to DRM to reduce the country's vulnerability to the impacts of climate change, gradually shifting towards a culture of disaster risk prevention.
- 4.17 CDB will support: (a) integration of disaster risk reduction (DRR) and climate change risks into sector policies and strategies; and (b) strengthened preparedness and mitigation measures (e.g. multi-hazard early warning systems, DRM-related policies and plans, sector contingency plans) and response systems. CDB will also consider support efforts to strengthen land use planning through local area spatial plans. Support for the effective implementation of the National Building Code and National Building Guidelines is also considered in the CES.

Expected Outcome 7: Effective response and recovery from COVID-19

- 4.18 In the wake of recurring shocks, GOCD requires support to assist the poorest households and impacted businesses while pursuing reforms to expand fiscal space, strengthen its macro-economic framework, and become more resilient. The CES aims to assist the Government to respond through the provision of budget support for reforms to enhance response and resilience. Support will also come from the IDB LOC to CDB.
- 4.19 Country engagement on the CES for Dominica started in 2018, prior to the emergence of the COVID-19 crisis, and initially contemplated PBO support for recovery and resilience in the aftermath of hurricane destruction. Finalising the CES was significantly delayed by protracted discussions and negotiations as GOCD strained to address multiple challenges as part of its recovery, including efforts to strengthen its fiduciary capacity and macroeconomic framework. With the onset of the health pandemic, the CES was further delayed in an effort to adjust and incorporate a comprehensive crisis response as part of the programme.
- 4.20 As part of CDB's COVID-19 responses, the Board of Directors of CDB approved, in May 2020, a loan to fund one year of OCR debt service payments (\$2.5 mn) on concessionary terms. CDB also provided a regional grant to support the purchase of personal protective equipment. In 2020, GOCD requested urgent assistance from CDB in the form of a PBO to help meet the urgent need for emergency liquidity support. The provision of a policy-based loan (PBL) within the CES includes redeployed, low-cost SDF 9 resources to support country COVID-19 responses, as sanctioned as an important lever within CDB's overall package of assistance 18.

Other Areas for Consideration

- 4.21 One of the guiding principles of CDB's Strategic Plan 2020-24 requires that CDB incorporate new areas of intervention, including the Blue Economy and digital transformation, in its engagement with its BMCs. Regarding the Blue Economy, a 2018 CDB ¹⁹ study highlighted the opportunities for exploiting it sustainably, as well as the accompanying challenges, drawing on experiences from elsewhere. A 2019 CDB working paper ²⁰ described the value of increased investments in this area. The evolution of the Blue Economy as a potential transformative economic platform for resilience is still in its very early stages, providing multilateral development partners, such as CDB, opportunities to be active participants. CDB is committed to supporting development through the Blue Economy and contributing to efforts that generate jobs and build resilience. As part of the CES, CDB will undertake analytical works to study the options for developing a Blue Economy framework for Dominica for providing opportunities for sustainable and inclusive economic growth, consistent with the NRDS. The assessments will explore opportunities where CDB can make significant impacts and, where possible, undertake preliminary steps.
- 4.22 Similarly, CDB can support digital transformation. Like many BMCs, Dominica needs a modern regulatory framework around data governance, improved cybersecurity, platforms to provide government services electronically, and increased private sector digital activity, both commercial and residential. GOCD is investing in broadband to connect all government locations (including schools and hospitals), and a recently-approved WB project will address some of the above-mentioned weaknesses. This provides CDB with an opportunity to ensure that planned interventions complement the expected reforms. However,

¹⁸ The paper, CDB's Proposed Response to COVID-19, (SDF 9/4 SM-2 Add.1) was submitted and approved at the June 2020 Meetings of Contributors to the SDF.

¹⁹ CDB (2018), Financing the Blue Economy: A Caribbean Development Opportunity.

²⁰ CDB (2019), Measuring the Blue Economy: The System of National Accounts and Use of Blue Economy Satellite Accounts.

it also allows CDB to examine potential for further collaboration with GOCD and with partners already operating in this field, and to explore other opportunities for assisting GOCD with the development of a digital economy.

INDICATIVE RESOURCE ENVELOPE

4.23 The indicative resource envelope is estimated at \$105.6 mm (see Table 4.1), and includes grant resources, concessional loan resources such as SDF, and support from IDB. CDB will provide TA aimed at enhancing policy making and planning to support effective implementation of resilience projects. The majority of the financing covers the UK-CIF-funded infrastructure projects and the PBL. This reflects CDB's emphasis on effective implementation. However, there is flexibility within the CES to consider wider needs.

TABLE 4.1: INDICATIVE SUPPORT PROGRAMME

Project/Programme	\$ mn
Improved and Climate Resilient Water Supply and Wastewater Infrastructure	
Resilient and Sustainable Water Sector (UK-CIF Grant)	
BNTF (Grant)	31.3*
Implementation Capacity Building	TBC
	TA
Increased Efficiency, Improved Resilience and Safety in the Road Sector	
Road Rehabilitation (UK-CIF grant)	
	32.2*
Improved Quality, Relevance, and Effectiveness of the Education System	
TVET and STEM Enhancement, Teacher Effectiveness, Integrating ICTs in Education	
BNTF (Grant)	10.0
	TBC
Improved Managerial and Operational Capacity of MSMEs	
Support for MSMEs (through Caribbean Technological Consultancy Services [CTCS])	
	0.3
More Transparent and Effective PFM System	
Procurement Reform	
	TA
Increased Resilience to Climate Change and Disaster Risks and Impacts	
TA supporting Environmental Sustainability, Climate Change and DRM	
	1.5
Effective Response and Recovery from Environmental Shocks and from COVID-19	
PBO (\$13 mn SDF; \$7 mn OCR)	
Sub-loans available from IDB LOC to CDB (for MSMEs, health and social interventions)	20.0
,	10.3
TOTAL	105.6

^{*}UK-CIF grant converted from Pound Sterling (GBP) to \$ on October 27, 2020 (GBP1.00=\$1.30).

4.24 CDB will continue to seek ways to augment the present level of concessionary funding avenues available to Dominica to improve cost efficiency and development impact over the strategy period. CDB will also consider requests for flexibility in counterpart funding of projects. In addition to the options provided in this CES, technical capacity limitations will be addressed by providing programme specific in-country capacity building for executing agencies and associated line ministries.

MONITORING IMPLEMENTATION AND RESULTS

- 4.25 A Results Framework will be used to monitor and assess the CES development outcomes (see Appendix 5). It ensures that each outcome and indicative intervention of the CES is aligned to the country's development objectives. Performance indicators can be utilised to monitor the expected outcomes to which the proposed interventions are expected to contribute. In the CES, the Results Framework is predicated on sector-level outcomes and a project-level results framework will be developed at the design stage for each project.
- 4.26 Monitoring and coordinating the CES will be done by CDB (led by the Economics Department) and country authorities. CDB's engagement will be focused on promoting mutual accountability for results and fostering open and frequent policy dialogue with GOCD. To that end, an implementation monitoring framework has been developed to track the progress of the projects and programmes identified in the CES Results Framework. A CES implementation monitoring plan will incorporate regular stock takes with GOCD-assigned counterparts, country missions, where possible, and a mid-term review. These actions will also allow for the assessment of the utilisation of the resource envelope and any necessary course corrections in the shortest possible time, to ensure the continued relevance of the projects or programmes. Given the current difficult economic climate that could impact CES implementation, they will facilitate and allow for the required adaptability and flexibility in the strategy to adjust the scope and to re-prioritise in the event of changed conditions. CES supervision meetings are part of a broader mechanism to promote efficient strategy implementation and to enhance structured communication channels and timely reporting. Following each stock take, a note on the evolution of the CES will be prepared for CDB's Operations Management Team. A sample of this reporting framework is available at Appendix 6.
- 4.27 Implementation of the CES will be guided by an operational framework that defines the specific roles and responsibilities at the country and Bank levels for approved projects. In 2024, an end-of-strategy review will be conducted to assess sector outcomes of the CES according to the Results Framework.

COORDINATION WITH DEVELOPMENT PARTNERS

- 4.28 Donor coordination is critical to avoid duplication and to maximise engagement with Dominica, given its access to a number of concessional and grant resources from a variety of bilateral and multilateral sources. Accordingly, the CES considers the engagement of other development partners (see Appendix 7), inclusive of coordination around COVID-19 assistance, to create synergies and draw on CDB's comparative advantage. To maximise the effectiveness of interventions, it is vital that all partners are aware of each other's activities. The coordination of development partners is done by the Ministry of Finance (MOF).
- 4.29 Multilateral partners include WB and the European Union (EU). CDB previously worked with the WB and other partners on the Hurricane Maria Post-Disaster Needs Assessment and is currently collaborating with EU and WB to improve the procurement framework in Dominica and to enable macroeconomic and fiscal reforms. WB is also supporting resilience building in agriculture, housing, health, and energy. It is about to launch a new Eastern Caribbean digital transformation project, which will include Dominica. As mentioned above, CDB interventions with a digitalisation element will complement this project. Regarding energy, the EU has been providing complementary support for RE and EE under the 11th European Development Fund (2014-2020). Other significant partners are FAO and UNDP.

5. RISK ANALYSIS AND MITIGATION

- 5.01 There are several potential risks to the achievement of the CES's objectives. Key areas of concern include macroeconomic, institutional and human resource capacity, fiduciary and environmental risks given Dominica's high level of vulnerability and exposure to natural hazards. The risk mitigation measures considered focus on a systematic framework of monitoring and country engagement.
- 5.02 CDB's Office of Risk Management (ORM) has overall responsibility for the establishment and oversight of its Risk Management Framework. The ORM policies identify, analyse, and monitor the risks faced by CDB, to set appropriate risk limits and controls and to ensure adherence to limits. Risk management policies and systems are regularly reviewed to reflect changes in the market conditions and CDB's activities. The primary risks encountered by CDB are as follows:
 - (a) **Credit Risk** is the risk of financial loss to CDB if GOCD or counterparty to a financial instrument fails to meet its contractual obligations that arise principally from the loans and advances to customers and investments.
 - (b) **Liquidity Risk** is the risk that GOCD may encounter difficulty in meeting obligations associated with its financial liabilities or responsibilities that are settled by cash or another financial asset. With respect to this strategy, the concern would be largely in relation to the availability of counterpart contributions that would normally be required from the borrowers for the financing of projects by CDB. Prudent liquidity risk management requires GOCD to maintain sufficient cash and short-term marketable securities and monitor future cash flows to ensure that adequate liquidity is maintained.
 - (c) Operational Risks emanate from the execution of business activities and relate to the potential loss or damaged reputation from failed or inadequate internal processes, people, and systems, or from external events. It is the risk arising from direct or indirect loss or damaged reputation attributable to fraud, human error, processes, or technological internal controls.
- 5.03 Table 5.1 summarises these risks as they relate to Dominica, as well as CDB's proposed mitigation measures.
- 5.04 All interventions will be screened for climate and disaster risks, associated risks documented, and contingencies built into each project based on the screening (see Appendix 8). Table 5.1 summarises the likely risks, as well as CDB's proposed mitigation measures.

TABLE 5.1: RISK ASSESSMENT AND MITIGATION MEASURES

Risk Type	Description of Risk	Mitigation Measures
Credit	In 2020, COVID-19 further exposed the vulnerabilities of the economy. Dominica is a small, highly-open economy which is dependent on tourism and agriculture, and thus vulnerable to significant changes in global economic conditions. Weak external demand related to tourism arrivals and/or financial flows are negatively impacting real GDP growth. Continued sluggish external conditions could increase debt distress and make fiscal consolidation more difficult.	At least \$63.5 mn of the resource envelope is grant funding, and many of the loan resources are concessional. This does not include Dominica's SDF 10 allocation. Reforms supported by this CES and other development partners are expected to improve the macroeconomic framework over time. This will help to mitigate these risks and increase GDP growth. CDB will monitor Dominica's macroeconomic conditions through fiscal and debt updates. CDB is prepared to engage with GOCD to develop appropriate responses to further unforeseen developments.
Liquidity	GOCD has insufficient liquidity to meet debt service obligations to CDB and to provide counterpart contributions.	CDB will monitor fiscal developments throughout the CES period. Debt service as a proportion of Government revenue averaged 13.3% between 2015 and 2019, but is expected to increase to increase to 24.6% in 2020, mainly because of the fall in CBI revenues. CDB expects the ratio to improve as the economy picks up. The Mid-term Review provides an opportunity to reassess the CES, as well as GOCD's liquidity position.
Operational	Implementation capacity constraints. CREAD is currently without key staff, and there is uncertainty as to its ability to deliver key projects and capacity building in MPW before its remit ends in 2022 (or 2023, as the legislation permits). This uncertainty extends beyond 2022 (2023) after CREAD is wound down.	There will be a comprehensive assessment of CREAD's ability to deliver CDB projects, including identifying gaps to ensure project delivery and capacity building. CDB will consider TA options for addressing these gaps. CDB will engage regularly with CREAD and GOCD to identify solutions to build long-term capacity within MPW and other Ministries and Departments for after CREAD's mandate expires. CDB will consider TA options for addressing these gaps. However, this risk will need to be monitored and reported on regularly as part of the Implementation Framework. Additional mitigating measures will have to be identified.

Risk Type	Description of Risk	Mitigation Measures
Disaster Environmental Climate	Dominica is highly vulnerable to natural hazards, the effects of climate change, and other environmental risks. These risks disrupt economic activity, impact fiscal consolidation, and reduce GOCD's capacity to implement.	All interventions will be screened for climate and disaster risks, associated risks documented, and contingencies built into each project based on the screening. The CES allows flexibility to respond to the challenges posed by natural hazards by making additional specific disaster response financing available.
Political	Political risks are connected with a potential pause in some activities associated with a change in administration due to a difference in priorities.	The CES is consistent with the NRDS and CRRP. It also considers the manifestos of both main political parties before December 2019. Through regular engagement with GOCD, CDB will be able to amend the CES to reflect changing priorities.

GENDER MARKER ANALYSIS

Project Cycle Stage	Criteria	Score
Analysis	Social and gender analysis conducted at CES preparation and incorporated in the CES document.	
Design	Sex-disaggregated data included in the analysis and in the baselines and indicators and targets of the Results Framework.	0.5
Implementation	Consultations with gender-relevant stakeholders undertaken during preparation.	1.0
M&E	Gender-responsive outcomes, outputs and indicators included (but not for each outcome).	0.5
Total	Code: GM	3.0

GM: The CES has the potential to contribute significantly to gender equality.

SOCIAL VULNERABILITY MATRIX

Name of Institution	Name of Group/s	Types of Risks/ Vulnerabilities Faced	Existing Policy and Programmes	Partners	Recommended Mitigating Strategies
Ministry of Kalinago Affairs	Indigenous peoples	High incidence of poverty	Indigenous Peoples Planning Framework	Kalinago Council	
			Kalinago Territory Council Act		
Dominica Association for Persons with Disabilities (PwD)	PwD	Discrimination Unemployment	United Nations Convention of the Rights of Persons with Disabilities (UNCRPD)	Lifeline Ministries Dominica	Legislate UNCRPD
Dominica Youth Business Trust National Youth Council of Dominica Youth Development Division – Ministry of Youth Development and Empowerment, Youth at Risk, Gender Affairs, Seniors Security and Dominicans with Disabilities	Youth	Discrimination Unemployment Non-involvement in policy making Underemployment Drug abuse Crime and violence	National Youth Policy 2004	Caribbean Community (CARICOM) Secretariat Commonwealth Youth Programme Dominica Broadcasting Services United Nations (UN) Educational, Scientific and Cultural Organisation OAS	
Bureau of Gender Affairs	Women, men, boys and girls	Abuse Gender-based violence	 National Policy and Action Plan on Gender Equity and Equality 2006 Protection Against Domestic Violence Act of 2001 The Sexual Offences Act 1998 	The National Council of Women of Dominica Dominica Christian Council Council of Evangelical Churches of Dominica National Youth Council of Dominica UN Women	Update and legislate National Policy and Action Plan on Gender Equity and Equality

		Types of Risks/	Existing Policy and	_	Recommended Mitigating
Name of Institution	Name of Group/s	Vulnerabilities Faced	Programmes	Partners	Strategies
Ministry of Housing and Urban Development	Disaster affected citizens/permanent residents. Special considerations for single/elderly and disabled heads of household, unemployed and recipients of public assistance and persons for whom part of the house was used as a source of livelihoods.	Natural hazard impact and climate change Destruction of homes and livelihoods	NRDS CREAD Housing Recovery Programme and Renovation Programme	EU WB Housing Project CARICOM Climate Change Centre	Improve community level resilience to natural hazards and climate change impacts
National Development Foundation of Dominica	Start-ups and established small businesses	Limited access to credit and TA Defaults due to disasters		 Dominica Agricultural Industrial and Development Bank EU United States Agency for International Development Global Affairs Canada/ Department of Foreign Affairs, Trade and Development CDB 	
Ministry of Ecclesiastical Affairs, Family and Gender Relations	Students and adults from lower socio- economic groups	Absenteeism Unemployment	Yes We Care	People's Republic of ChinaCDB	Management Information System and methodology for data to drive informed decision- making including a unique citizen identifier
Ministry of Environment, Climate Resilience, Disaster Management and Urban Renewal			Disaster Vulnerability Reduction Project Implementing Sustainable Low and Non-Chemical Development in Small Island Developing States Programme Technology Needs Assessment Project	 Global Environment Facility Caribbean Disaster Emergency Management Agency UN Environment Programme/Global Environment Facility 	Need for a strategy to coordinate to streamline management and maintenance of the diversified cultural sector/National Heritage Trust
Office of the Prime Minister	Disaster affected citizens/permanent residents		Rapid Response Social Recovery Agency	Response Social Recovery Agency Act (No 5, 2018) gazetted on May 17, 2018	Rationalisation of key social protection programmes and development of a national social protection sector development strategy and plan of action.

Name of Institution	Name of Group/s	Types of Risks/ Vulnerabilities Faced	Existing Policy and Programmes	Partners	Recommended Mitigating Strategies
МОЕ		Absenteeism	School Feeding School Transportation Programme Schools Transfer Grant		
MOF	Universal		Social Pension		
Ministry of Trade, Energy and Employment	Unemployed		National Employment Programme		
Dominica Social Security			Social Security		
Social Welfare Department, Ministry of Health and Social Services	Vulnerable, lower socio-economic groups		Public Assistance Programme		

DEVELOPMENT VISION AND COUNTRY PRIORITIES

Dominica's vision to "build the first climate resilient nation in the world" is fully articulated in NRDS. The NRDS specifies 43 objectives that must be attained in order for Dominica to achieve its vision. CRRP is designed to operationalise NRDS by converting those 43 objectives into 20 specific climate resilience targets across 6 result areas from the 3 pillars of CRRP. CRRP priorities 10 high impact intiatives to achieve these targets on the bases of the contribution to achieving the country's vision and the cost of delivery.

Focused Results Areas

Focused Results Areas	Overarching Goal				
Strong Communities	Providing increased and equitable access to shelter, food, water, power, telecommunications, social cohesion, and disaster preparedness and responsiveness.				
Robust Economy	Increasing economic resilience by improving equitable access to skills, improving access to finance, diversifying revenue streams and developing mechanisms for risk sharing.				
Well-planned and Durable Infrastructure	Providing critical resilient infrastructure that can either absorb shocks or fail safely.				
Enhanced Collective Consciousness	Promoting value systems that embrace resilience and respect for people and environment.				
Strengthened Institutional Systems	Improving implementation and delivery based on improvements in data and decision-making protocols, policies, strategies, procedures, skills, resilience linked budget setting and performance managements.				
Protected and Sustainably Leveraged Natural and Other Unique Assets	Enhancing environmental protections while carefully monetising the natural assets of the country to support the resilience agenda.				

CRRP Resilience Targets

	Climate Resilience Targets by 2030		Critical High Impact Climate Resilience Initiatives
1.	Zero climate-event related fatalities	1.	Enhanced Social Safety Net Initiative
2.	Communities able to operate independently for 15 days post a climatic event		A data driven, computerised welfare system with a strengthened delivery team
3.	90% of housing stock build or retrofitted to resilient building codes	2.	Community Emergency Readiness Initiative
4.	Individuals able to revert to basic living standards within four days		Development of Community Disaster Management Committees, Disaster Management Plans for all communities, and requisite food and power supplies to ensure 15 days' autonomy each hurricane season
5.	100% resettlement of individuals living in physically vulnerable locations	3.	Resilient Housing Scheme
6.	Less than 5% of GDP in losses related to a climatic event		Transform the structural reliability of the nation's housing to extreme weather and relocate those currently located in physically vulnerable locations
7.	Less than 50% agriculture and fisheries losses as a percentage of total GDP losses	4.	Koudmen Domnik
8.	100% functioning of critical Government and emergency services during and after a climatic event		An active volunteer movement with a youth emphasis
9.	Seaports and airports functioning within one week of a climatic event	5.	Resilient Dominica Physical Plan
10.	Sustained, sustainable and inclusive growth of minimum 5% achieved		A comprehensive evidence-based plan that addresses all infrastructure design to inform a capital works programme
11.	100% primary roads and bridges open within 3 days of a climatic event	6.	Innovative Insurance Solutions
12.	60% of the population with access to power within 3 days of a climatic event		This initiative will work to identify innovative affordable, appropriate option to reduce the the protection gap
13.	90% of the population with access to power within 3 days of a climatic event	7.	Dominica as a Global Centre for Agriculture Resilience
14.	No more than 5% of schools and healthcare facilities severely damages or destroyed by a climatic event		An initiative to develop a scientific and practical approach to reducing the vulnerability of famers and fisher folks through the adoption of resilience practices, crops, and infrastructure
15.	100% of telecommunications restored within 3 months of a climatic event	8.	Revised Public Sector Investment Programme Allocation Methodology and Enhanced Public sector Performance Management
16.	100% of national budget and Government performance measurement framework informed by resilience targets		Changing processes to align CRRP targets to the budget process
17.	90% of the population able to identify the pillars of resilience and at least one measure undertaken by the Government	9.	Centre of Excellence for Data in Resilience Decision- making
18.	60% of agricultural land cultivated organically, supporting environmental protection and the sustainable 10 development agenda		A dedicated geographical information systems unit to institutionalise a data-driven approach to all planning decisions
19.	50% increase healthy coral reef coverage to support increased fish stocks, and protect coastlines and the eco-tourism industry	10.	ResilienSEA Triple Bottom Line Blue Economy Investment Fund
20.	100% domestic RE production as a contribution to a zero-carbon economy		An initiative to finance sustainable businesses based on or linked to Dominica's rich marine environment

PUBLIC FINANCIAL MANAGEMENT SCORECARD 2016

Summary Assessment 2016 ratings						
PFM Performance Indicator			Dimension Ratings			
		i.	ii.	iii.	iv.	Score
	udget reliability	1				_
PI-1	Aggregate expenditure out-turn	D				D
PI-2	Expenditure composition out-turn	C	D	A		D+
PI-3	Revenue out-turn	D	D			D
Pillar II:	Transparency of public finances			_		
PI-4	Budget classification	В				В
PI-5	Budget documentation	В				В
PI-6	Central government operations outside financial reports	D	D	A		С
PI-7	Transfers to sub-national governments	С	A			В
PI-8	Performance information for service delivery	D	D	D	D	D
PI-9	Public access to fiscal information	D				D
Pillar III:	Management of assets and liabilities			•		
PI-10	Fiscal risk reporting	D	D	С		D+
PI-11	Public investment management	С	A	В	A	B+
PI-12	Public asset management	С	D	С		D+
PI-13	Debt management	Α	A	В		Α
	Policy-based fiscal strategy and budgeting	1	ı	1		1
PI-14	Macroeconomic and fiscal forecasting	D	В	D		D+
PI-15	Fiscal strategy	В	A	В		B+
PI-16	Medium term perspective in expenditure budgeting	A	A	С	В	B+
PI-17	Budget preparation process	В	С	D		С
PI-18	Legislative scrutiny of budgets	В	С	С	В	C+
	Predictability and control in budget execution	1		1		
PI-19	Revenue administration	Α	A	С	D	В
PI-20	Accounting for revenue	Α	A	A		Α
PI-21	Predictability of in-year resource allocation	Α	A	С	С	В
PI-22	Arrears	Α	В			B+
PI-23	Payroll controls	В	Α	A	С	C+
PI-24	Procurement management	D	D*	D	D	D
PI-25	Internal controls on non-salary expenditure	Α	В	A		Α
	Accounting and reporting		ı	1		
PI-26	Internal audit	В	С	С	D	D+
PI-27	Financial data integrity	В	A	A	A	B+
PI-28	In-year budget reports	D	A	C		D+
PI-29	Annual financial reports	В	A	D		D+
Pillar VII: External scrutiny and audit						
Pillar VII	<u> </u>	-	_	Ъ	D	D
Piliar VII	External audit	D	D	D	עו	עו

RESULTS FRAMEWORK

Country Development Priorities	Specific Sector Constraints Being Addressed by CDB	Sector Outcomes Being Targeted	Outcome Indicators	CDB's Indicative Areas for Support	Risks and Mitigation
	PILI	AR 1: Enhancing economic	outcomes through resilient infra	astructure	
Well planned and durable infrastructure. (Resilience Target – individuals able to revert to basic living standards within four days).	High vulnerability to climate variability and climate change.	Improved and climate resilient water supply and wastewater infrastructure.	 i. Number of people with access to reliable water supply. Baseline (2019): 95% of the population. Target (2024): 100% of the population. ii. Improved wastewater 	Water Sector Strategic Development Plan and infrastructure.	i. Implementation capacity constraints. ii. Sub-optimal buy-in by key stakeholders including industry partners. iii. Timely pre-appraisal inputs, such as designs for
(Resilience Target – 100% primary roads and bridges open within 3 days of a climatic event).		ii. Increased efficiency, resilience and road safety for road infrastructure and improved maintenance, management and planning for the road sector.	Baseline (2014): 81% of the population. Target (2024): 98% of the population. iii. Number of people with access to efficient, resilient, and safe road infrastructure between Loubiere and Grand Bay. Baseline: 0. Target: 74,864. iv. Kilometres of road infrastructure rehabilitated or upgraded Baseline: 0 km. Target: 16 km.	ii. Rehabilitation of Loubiere to Grand Bay road.	such as designs for infrastructure works. Mitigation Measures i. Active supervision of project/programme activities by CDB staff. ii. CDB will maintain dialogue with the country authorities and finalise arrangements for pre-appraisal inputs, such as critical conditions precedent to be met (including land acquisition, resettlement where warranted), financing preparation activities and designs from conception to final.

Country Development	Specific Sector Constraints	Sector Outcomes Being	0.40.007.71	CDB's Indicative Areas for	D.1 13.00
Priorities	Being Addressed by CDB	Targeted DILLAD II. Strongthoning I	Outcome Indicators Juman Capital and Compatitive	Support	Risks and Mitigation
Robust economy. (Resilience Target – no more than 5% of schools and healthcare facilities severely damages or destroyed by a climatic event)			i. Percentage of males and females taking at least one TVET subject in the terminal grade in secondary education (Form 5). Baseline (2019): Male-74%; Female-48%. Target (2024): Male-85%; Femle-60%. (Source: MOE). ii. Education survival rate (by sex) increased. Baseline (2018): Males-55%; Females-81%. Target (2024): Males-70%; Females-90%.		i. Implementation capacity constraints. ii. Timely pre-appraisal inputs, such as designs for infrastructure works. iii. Sub-optimal buy-in by key stakeholders including industry partners. Mitigation Measures i. Active supervision of project/programme activities by CDB staff. ii. CDB will maintain dialogue with the country authorities and finalise
Robust Economy (Resilience Target – sustained, sustainable and inclusive growth of minimum 5% achieved	Low MSME capacity in marketing; business management and disaster resilience.	Improved managerial capacity and operation of MSMEs.	i. Number of business people trained in areas related to business operations and management. ii. Number of MSMEs assisted in developing business continuity plans. iii. Improved enabling environment to facilitate MSME access to finance. iv. Number of business support organisations strengthened. v. Number of businesses accessing finance for EE/RE	i. Training and on-site TA for MSMEs in manufacturing, agro-processing, Blue Economy, and creative industries. ii. Sub-loans from IDB LOC. iii. Ongoing EE LOC.	arrangements for pre- appraisal inputs. Main Risk COVID-19 crisis limits face- to-face contact. Mitigation Measure Increased use of online and remote mediums, where feasible.

Country Development Priorities	Specific Sector Constraints Being Addressed by CDB	Sector Outcomes Being Targeted	Outcome Indicators	CDB's Indicative Areas for Support	Risks and Mitigation
	PILLAF	R III: Crisis response and Improvir	ng economic and environment	al resilience	
Strengthened Institutional Systems	 i. Weak fiduciary capacity. ii. Inadequate procurement regime. iii. Weak de jure PFM regime with poor external scrutiny. 	More transparent and effective PFM systems.	 i. New procurement framework in place – legislation and regulations, by end 2021. ii. PEFA assessment rating of procurement management improved from D (2015) to C+ (2024). 	Strengthening public procurement through TA.	Main Risks Implementation capacity constraints. Mitigation Measures CDB willing to consider TA to reinforce reforms.
Strengthened Institutional Systems	i. Inadequate data to support evidence-based decision-making. ii. Threats posed to land, livelihoods and infrastructure by climate change and variability.	Increased resilience to climate change and disaster risks and impacts.	Priority climate change adaptation interventions and DRR measures implemented.	TA to support climate change adaptation and DRR policies, strategies, projects as appropriate. Strengthen multi- hazard early warning systems.	Active supervision of project/programme activities by CDB staff.
Robust Economy	Vulnerability of employment and livelihoods to natural hazards and pandemics.	Effective response and recovery from COVID-19	i. Increase in COVID-19 expenditure. ii. Pandemic preparedness plan and business continuity plan. iii. Tax filing extensions. iv. Access to income support. v. Updated building codes and guidelines.	i. Budget support.i. Sub-loans from IDB LOC.	Proper assessment of macroeconomic conditions and the institutional framework.

REPORTING FRAMEWORK TEMPLATE

Country: Commonwealth of Dominica

Date:

Macroeconomic Developments

A brief listing of 3-5 key macroeconomic issues

Key Development Issues

A listing of the key development issues affecting the country.

CES Outcomes

Listing of the outcomes included in the CES.
Projects Under Implementation
Pipeline Projects

Key Implementation Issues and Lessons

Are the CES outcomes still relevant?

If not, what has changed?

Are there any critical changes in circumstances that have taken place?

What are some of the factors that are positively and negatively affecting CES implementation?

Status of CES Outcomes

Outcome	Outcome Indicator	Baseline	Target	Status	Outlook

Projects Under Implementation

Project/TA Name	Total	Disbursed	Comments

Status of Indicative Programme

Project/TA Name	Actual/Expected Board	Status	
	Date		

DEVELOPMENT PARTNERS' CURRENT ACTIVITIES

				UNDP/ UNICEF*/				
Sector/Area	CDB	WB	EU	FAO/PRC**	IMF	CANADA	China	FCDO***
Agriculture		Emergency Agricultural Livelihood and Climate Resilience Project	Feeder Roads	Strengthening food safety systems. Agricultural and food systems development strategy				
DRM and Climate Change	PBL – \$20 mn	Disaster Vulnerability Reduction Project	Caribbean Catastrophe Risk Insurance Facility Segregated Portfolio Company (CCRIF SPC) payment			CCRIF SPC payment		
Energy	Sustainable Energy Facility for the Eastern Caribbean	Geothermal risk mitigation project	RE/EE					
Education	Education enhancement BNTF	Housing Contingency Emergency Response Component (CERC) (education grants)		Educational Facilities		Educational Facilities	Educational Facilities	

^{*} United Nations Children's Fund.

^{**}Peoples Republic of China.

*** Foreign, Commonwealth and Development Office.

Sector/Area	CDB	WB	EU	UNDP/ UNICEF/ FAO/PRC	IMF	CANADA	China	FCDO
Infrastructure	Rehabilitation and reconstruction projects Sea defences and road improvement Solid waste	Housing Recovery Project*	Post-Hurricane Maria Housing and Shelter Regional Air Transport Connectivity Project – \$13 mn (2020-2026)	Capacity building and public outreach in Building- Back-Better techniques. Resilient roofs for schools and public buildings.			Rehabilitation and reconstruction projects	Rehabilitation and reconstruction project.
Private Sector Development/ Trade	LOCs CTCS support for manufacturing, agro-processing, blue economy, and creative industries Support via LOC from IDB	OECS MSME Guarantee Facility Project – (2018-23) Housing CERC (small business loans)		Blue Economy	Technical support for credit unions			
Public Sector Modernisation/ Governance	Debt refinancing loan \$3 mn (2020) PBLs - \$45 mn (2020-2021)	Caribbean Digital Transformation Project – \$94 mn total (2020-2026) Caribbean Resilience Facility (2019-2023)			RCF \$14 mn (2020)		Grant \$2 mn	

				UNDP/ UNICEF/				
Sector/Area	CDB	WB	EU	FAO/PRC	IMF	CANADA	China	FCDO
Health		OECS Building resilience of public health systems. COVID-19 Pandemic Emergency					Rehabilitation and reconstruction Health Facility	
		Financing						
Social Protection	Enhanced CPA Kalinago territory resilience TA	Housing CERC (unemployment and over 70 years grants)						
Water and Sanitation	Roseau Water and Sewerage. Water Upgrade Project BNTF							

^{*}WB projects partly repurposed in 2020 to address COVID-19 needs.

CLIMATE AND DISASTER RISK SCREENING

Basic Project/Programme Information

Project Title: CES
Country: Dominica
Sector: Multi-Sector

Country Objectives and Brief Description:

To identify the overall risk to priority sectors critical to meeting the country's CES outcomes and priorities, based on climate and geophysical hazards and sector potential impact, but adjusted for the sector's institutional readiness and for the challenges and opportunities presented by the larger development context.

Project Cost: N/A.

Summary of Climate and Disaster Risk Screening

A. Context

Dominica is an island located in the eastern Caribbean Sea. Dominica has an area of 750 km² and is extremely mountainous with flat land limited to coastal areas in the northeast and river valleys. In 2019, the population was estimated at 74,243 persons¹ reflecting an increase from the national 2011 preliminary census². Topographic conditions have forced human settlements onto narrow coastal areas particularly in the south and west with approximately 62% of the population living along the coast³. The largest community is Roseau (the capital city) and its environs with 14,847 persons representing almost 21% of the total population.

B. Exposure⁴: Brief Description of Hazards Likely to Affect the Country Engagement Strategy⁵

Haz	ard:	<u>Description</u> ⁶ :
	Extreme Temperature. Extreme Precipitation and Flooding Drought. SLR and Storm Surge. Strong Winds. Earthquakes. Landslides.	See Table below.

¹ Central Intelligence Agency mid-July 2020 population estimate for Dominica. https://www.cia.gov/library/publications/the-world-factbook/geos/do.html.

² Preliminary 2011 census recorded a total population of 71,293. GOCD website. http://dominica.gov.dm/government-publications.

³ Dominica Second National Communications.

⁴ The presence of people, livelihoods, species or ecosystems, environmental services and resources, infrastructure, or economic, social, or cultural assets in places that could be adversely affected by a hazard.

⁵ A physical process or event (hydro-meteorological or oceanographic variables or phenomena) that can harm human health, livelihoods, or natural resources.

⁶ For details see Table 1: Climate and Geophysical Hazards, and Potential Impacts for Priority Sectors for Current and Future Time.

C. Sensitivity ⁷ of Sectors (if known)	
Key Sectors in CSP	Sensitivity to Climate Change and Natural Hazards
(a) Water(b) Infrastructure(c) Education	See Table below.

D. Adaptive Capacity

Overall, currently the priority sectors in the CES have a low to moderate adaptive capacity to manage potential impacts of climate change. The institutions with responsibility for managing the CES sectors are currently preparing climate resilient strategies. Several policies and strategies that take a comprehensive and systematic approach to incorporating climate change and disaster risk considerations into their operations.

E. Climate and Disaster Risk Assessment Summary

Dominica is exposed to a high level of risk with meteorological and geophysical hazards (mainly earthquakes, hurricanes, storm surges, extreme rainfall events, landslides and flooding), which have serious negative impacts to its socioeconomic stability by diverting fiscal resources and undermining development priorities. These hazards often result in loss of life and livelihoods, and significant and recurrent damage to economic and social infrastructure including roads, housing, and schools, as well as communications networks, water, and electrical services. GCRI 2020 ranked Dominica among the top 10 countries most affected by extreme weather events in the last 2 decades. Climate change is projected to lead to more frequent and intense extreme weather events by which Dominica is already severely impacted, increasing temperatures, greater rainfall variability and SLR. Approximately 90% of residents are located on or near the narrow coastal areas. Rising sea levels and storms will worsen coastal erosion and flooding, isolating or displacing settlements.

Climate change and disaster impacts adversely affect CES sectors that are important for Dominica's socioeconomic growth. Extreme weather events adversely affect school infrastructure, many of which are used as emergency shelters, hinder school attendance and slow progress in improving the education system. These events also damage or destroy existing road infrastructure, thereby further limiting access to social and economic services and opportunities. The trend towards drier conditions point to an overall decrease in freshwater availability resulting from changing rainfall patterns threatening water quality and availability.

In 2017, GOCD heralded its intention to become a nation resilient to climate change impacts. To guide this path, GOCD recently prepared a NRDS and CRRP to direct the investments and actions to be taken across all sectors and at all levels throughout the society. Prior to 2017, GOCD had established various policy, legal and institutional arrangements to promote a more proactive approach towards disaster and climate risk management. Key documents include: Emergency Powers (Disaster) Act of 1987; National Disaster Plan 2001 (revised in 2006); NDC; National Climate Change Adaptation Policy (2002); Low-Carbon Climate-Resilient Strategy (2012); NLUP (2015); and Draft NLUP (2016). Past initiatives have also produced several hazard maps including landslide, volcanic hazard, storm hazard, wind, wave, flood, and seismic risks. In addition, over the past 10 years, GOCD programmed many climate and DRR activities funded through a variety of projects within the infrastructure, water resources and education sectors. These projects are in various stages of implementation through the sector line ministries. Through CREAD and sector ministries, GOCD is currently ramping up actions towards the goal to mainstream resilience and reduce vulnerability to climate change and disaster risks and impacts.

⁷ The degree to which a system, asset or species may be affected, either adversely or beneficially, when exposed to climate variability or change or geophysical hazards.

⁸ Eckstein, D. et al. 2017. *Global Climate Risk Index 2020: Who Suffers Most from Extreme Weather Events? Weather-related Loss Events in 2018 and 1999 to 2018.* Published by German watch e.V. https://germanwatch.org/en/download/16411.pdf Accessed 19 March 2020. The index analyses the extent to which countries and regions have been affected by the impacts of weather-related loss events (storms, floods, heatwayes etc.).

⁹ Second National Communication.

Adaptive capacity in all sectors, however, currently remains low to moderate, signaling the need for interventions to address gaps. Planned and ongoing interventions include: reducing physical vulnerability of critical infrastructure; strengthening the capacity of line ministries to mainstream climate resilience considerations into core physical and investment planning and asset maintenance; developing climate risk and vulnerability assessments for the agriculture sector and implementing adaptation plans of action responding to the vulnerabilities identified; improving meteorological and hydrological data collection and use; and emergency response and recovery planning.

Continued emphasis needs to be placed on:

- (a) Mainstreaming climate change into key sectors including undertaking climate vulnerability assessments and developing climate resilient investment master plans for critical infrastructure and buildings.
- (b) Ensuring that responsibilities for climate action are assigned across ministries, with clear responsibilities for developing and implementing sectoral strategies and costed investments.
- (c) Ensuring that climate-related objectives and activities in sector strategies are systematically identified in the budget, and investment projects explicitly linked to these objectives and activities.
- (d) Implementing adaptation measures identified for the CES priority sectors.
- (e) Supporting DRM through mapping of community level landslide risk, road slope stabilisation, and seismic micro-zonal hazard mapping.

F. Overall Risk Assessment Rating (None/Low/Moderate/High): Low-Moderate.

Natural Hazard	Time Scale	Description of Hazards	Road Infrastructure	Education	Water
Extreme Temperature	Celsius	Dominica's temperatures remain relatively consistent throughout the year. The mean temperature is around 26°C dropping to only 24°C to 25°C during the cooler months of December to February. During the warmest period of the year a maximum of 33°C may be observed along the coast compared with 27°C in the mountains. Since 1960, the mean annual temperature has increased by approximately 0.7°C, at an average rate of 0.16°C per decade 10.			
	Future	Mean annual increase in temperature is projected to rise by 1.4°C in 2050.			
Extreme Precipitation and Flooding	Current	Dominica has a dry season from January to April, and a rainy season from September to November. Precipitation records indicate that the island receives an annual average of 250 centimetres (cm) to 380 cm of rain. Average annual rainfall in the mountainous interior reaches as high as 500 cm versus 200 cm in relatively flat coastal regions ¹¹ .			
	Future	North Atlantic hurricanes and TSs appear to have increased in intensity over the last 30 years. Observed and projected increases in sea surface temperature indicate potential for continuing increases in hurricane activity, and model projections indicate that this may occur through increases in intensity of events but not necessarily through increases in frequency of storms. The proportion of total rainfall during heavy events decreases in most model projections, changing by -18% to +10% by the 2090s.			
Drought	Current	The eastern Atlantic coast receives an annual average rainfall averaging 444.5 cm. Average annual rainfall along the west coast is less than 125 cm. During 2009-2010 Dominica experienced severe drought conditions that occurred across the Caribbean that adversely affected agriculture and water sectors. In 2019 the western region experienced a meteorological drought, whereas the eastern part of the island recorded normal rainfall. Changes in rainfall patterns are projected to increase the likelihood of water shortages and heighten the risk of extreme drought.			
	Future	Projections of mean annual rainfall indicate decreases in rainfall in all seasons except March, April, and May. Mean annual precipitation is projected to fall by -11.32 cm in 2050. Annual projections vary between -53% and +27% by the 2090s. Projections are for up to 20% drier by midcentury when models show more consensuses about the trend, and up to 50% drier by 2100.			
SLR and Storm Surge	Current	Global SLR has occurred at a rate of 1.7 ± 0.2 mm per year between 1901 and 2010, but has accelerated since the 1900s; with the 1993-2010 period presenting a rate of 3.2 ± 0.4 mm/year (very likely). Between 1950 and 2000, SLR in the Caribbean Region was estimated to near the global mean.			

¹⁰ WB Climate Change Knowledge Portal.¹¹ Taylor Michael et al. Dominica: Climate Trends and Projections Climate Studies Group, Mona. University of the West Indies (UWI).

Natural Hazard	Time Scale	Description of Hazards	Road Infrastructure	Education	Water
	Future	The Caribbean is projected to experience greater SLR than most areas of the world due to its location closer to the equator and related gravitational and geophysical factors ¹² . SLR within the Caribbean is projected to be between 0.17 metres (m) and 0.24 m by 2050. When combining SLR in 2040-2069 (0.47 m) with a storm surge generated by a Category 5 hurricane (5.87 m), the total land area in the coastal zone that is likely to be inundated increases to 19.474 km ² .			
Strong winds	Current	Wind speeds are highest, on average, during the months of January to July, corresponding with the dry season when the average is 24 km/h. Between August and December, the speeds average 16 km/h. Higher gusts are experienced with the passage of TSs and hurricanes.			
	Future	Global Climate Models project wind speed increases by up to 0.5 m/s by 2080s, while Regional Climate Models project up to 0.7 m/s.			
Earthquake	Current	Dominica's earthquake hazard is classified as medium ¹³ . This means that there is a 10% chance of a potentially damaging earthquake shaking the island in the next 50 years.			
Landslides	Current	Dominica's landslide susceptibility is classified as high. The island has rainfall patterns, terrain slope, geology, soil, land cover and (potentially) earthquakes that make localised landslides a frequent hazard phenomenon. Climate change is likely to alter slope and bedrock stability through changes in precipitation and/or temperature. Future locations and timing of large rockfalls are difficult to determine, as these depend on local geological conditions and other non-climatic factors.			

Legend:

Insufficient	No Potential	Low Potential	Moderate	Impact High Potential
Understanding	Impact	Impact	Potential	Impact

¹² Simpson, M.C.,1,2 Scott, D.,2,3 Harrison, M.,4 Sim, R.,3 Silver, N.,5 O'Keeffe, E.,6 Harrison, S.,4 Taylor, M.,7 Lizcano, G.,1 Rutty, M.,3 Stager, H.,2,3 Oldham, J.,3 Wilson, M.,7 New, M.,1 Clarke, J.,2 Day, O.J.,2 Fields, N.,2 Georges, J.,2 Waithe, R.,2 McSharry, P.1 (2010) Quantification and Magnitude of Losses and Damages Resulting from the Impacts of Climate Change: Modelling the Transformational Impacts and Costs of SLR in the Caribbean (Key Points and Summary for Policy Makers Document), UNDP, Barbados, West Indies ¹³ UWI Seismic Research Centre.

TABLE 2: OVERALL SECTOR RISK

	Education		Wa	ater	Tra	nsport
	Historical/	Future	Historical/	Future	Historical/	Future
	Current		Current		Current	
Potential Impact						
Extreme Temperature				*		
Extreme Precipitation and Flooding						
Drought						
SLR						
Storm Surge						
Strong Winds						
Earthquake		X		X		X
Landslide		X		X		X
Overall Sector Potential Impact						
Institutional Response	0 to 4	5 to 8	0 to 4	5 to 8	0 to 4	5 to 8
Preliminary Sector Impact						
Development Context	Access to te	chnology:			Access to	technology:
Considerations	decreases risk				decre	ases risk
Overall Sector Risk						

Adjusted for institutional readiness

Legend:

Insufficient	No Potential	Low Potential	Moderate	Impact High Potential
Understanding	Impact	Impact	Potential	Impact