INTEGRATING CCA AND DRR LAWS AND POLICIES TOWARDS A CLIMATE-RESILIENT DEVELOPMENT

LESSONS FROM THE COMMONWEALTH OF DOMINICA

IFRC Disaster Law

IRISH RESEARCH COUNCIL
An Chomhairle um Thaighde in Éirinn

UCC University College Cork, Ireland
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Geroge Grell: "Lets rebuild. Lets try to start to live again. We have to come together, lets bring our country back". The village of Layou, home to 90 families, was badly destroyed along with rest of Dominica when hurricane Maria struck.
Back cover photo: © iSAW Company

Integrating CCA and DRR laws and policies towards a climate-resilient development

Lessons from The Commonwealth of Dominica

2021

"...To deny climate change is to procrastinate while the earth sinks; it is to deny a truth we have just lived! It is to mock thousands of my compatriots who in a few hours without a roof over their heads will watch the night descend on Dominica in fear of sudden mudslides...and what the next hurricane may bring."

Prime Minister Roosevelt Skerrit, Commonwealth of Dominica,
Speech at the 72nd United Nations General Assembly, September 23rd, 2017

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CONTENTS

ACRONYMS AND ABBREVIATIONS

CARICOM	Caribbean Community
CCA	Climate change adaptation
CCC	Climate Change Commission
CDEMA	Caribbean Disaster Emergency Management Agency
CDM	Comprehensive Disaster Management
CREAD	Climate Resilience Execution Agency of Dominica
CRRP	Climate Resilience and Recovery Plan
CSOs	Civil society organisations
DLP	Disaster Law Programme
DRM	Disaster risk management
DRR	Disaster risk reduction
EU	European Union
EWSs	Early warning systems
GDP	Gross domestic product
GSPS	Growth and Social Protection Strategy
IFRC	International Federation of Red Cross and Red Crescent Societies
ILC	International Law Commission
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
NAP	National adaptation plan
NDCs	Nationally determined contributions
NGOs	Non-governmental organisations
NRDS	National Resilience Development Strategy
PSIP	Public Sector Investment Programme
RDPP	Resilient Dominica Physical Development Plan
SDGs	Sustainable Development Goals
SFDRR	Sendai Framework for Disaster Risk Reduction 2015–2030
SIDS	Small Island Developing States
UCC	University College Cork
UN	United Nations
UNDRR	United Nations Office for Disaster Risk Reduction
UNFCCC	United Nations Framework Convention on Climate Change

INTRODUCTION TO THE RESEARCH CONTEXT

The Caribbean region is already experiencing the effects of climate change, and this is only expected to worsen. The link between climate change and disaster risk has become abundantly clear for the small island developing states of this region, as their high-risk profile for disasters has been compounded by increasing ocean temperatures (leading to increased wind speeds in tropical storms) as well as increased frequency and intensity of the yearly hurricanes affecting the Atlantic and the Caribbean Sea.

Among the most affected small island Caribbean states, the Commonwealth of Dominica is fast becoming a global standard in improving resilience through legislation and governance. In 2017, the island was devastated by Hurricane Maria, a category 5 storm and one of the most destructive of the 10 consecutive hurricanes to hit the Caribbean during the hyperactive 2017 Atlantic hurricane season. This catastrophic event put every aspect of Dominica's government, economy and society under strain, wiping out entire neighborhoods and crippling businesses and social services for months.

At the same time, the passage of hurricane Maria also provided the country with a unique opportunity to review its regulatory and infrastructure systems, with the integrated goal of advancing climate change adaptation and disaster risk reduction in a wider strategy to ensure sustainable socio-economic development. Since 2017, the country has made significant choices designed to have a long-term impact on its governance model, including the adoption of laws, strategies and plans, and the establishment of a Climate Resilience Execution Agency.

This study provides an in-depth analysis of such advancements with a specific focus on how integrated regulatory instruments across different sectors can enhance effective and consistent action. In doing so, it builds on previous reports drafted within the broader framework of the research project on "Leave No One Behind. Developing Climate-Smart/ Disaster Risk Management Laws that Protect People in Vulnerable Situations for a Comprehensive Implementation of the UN Agenda 2030" which respectively addressed the intra-regional alignment to international frameworks by the Pacific Island Countries and the protection of vulnerable groups against climate and disaster risks in the Philippines.

STRUCTURE OF THE REPORT AND METHODOLOGY

As illustrated in Section 1 of this report, the reciprocal contributions provided by climate resilience, sustainable development and poverty reduction policies is evidenced by data. This is in live with the fact that the objective to 'leave no one behind' identified in the UN Agenda 2030 can be considered as first and foremost a socio-economic development issue. Against this background, the rationale for the selection of Dominica as a country case-study for this project is based on its recently adopted integrated and innovative approach. Section 2 shows how this country – as the whole Caribbean region – is not only highly exposed to the impact of weather and climate-related hazards but, due to its geographic and socio-economic profile, it is also particularly vulnerable as for its development capacity and economic growth. This has led the Dominican government to consider DRR and CCA as joint governance sectors to be integrated with economic and social planning, as clearly reflected in the recently approved regulatory and institutional framework described in Section 3.

A series of analytical considerations on how the country is integrating sustainable socio-economic development in climate resilience law and policies, and on their expected impact, are therefore identified in Section 4. In particular, key findings focus on distinctive features of the country's governance model, such as the importance of synergies with foreign partners as well as of global and regional instruments; the centrality of natural environment and ecosystems; or the relevance of gender integration and social inclusivity also through the recognition of social identities, including those of indigenous people. On this basis, Section 5 will provide some final reflections on the implementation of the new regulatory framework over the next years, while Section 6 will consolidates a list of suggested improvements that are drawn from the Dominican model as potential inspiration for other countries aiming at effective climate resilience law and policies that comprehensively link risk reduction and adaptation plans to longer-term sustainable development ambitions.

The present report results from a combination of desk-based analysis and empirical research conducted in the country via digital means through interviews with key-informants (KIs), whose names and affiliation are provided in Annex 1. KIs include IFRC and Dominica Red Cross staff; representatives from regional IGOs; representatives of civil society organisations/associations active in relevant sectors; and researchers with relevant expertise. Participants provided informed insights and evaluations of regional and national normative processes, while also assessing the actual impact of relevant normative tools at different levels and the inclusion and consideration of vulnerable groups in the decision-making processes. The interviews, based on a set of thematic open-ended questions, reflected their specific expertise in respective fields and focused on their personal evaluation/experiences.

This research was carried out after ethics approval was confirmed by the UCC Social Research Ethics Committee. All participants received and signed an 'informed consent form' where they acknowledged and specified the conditions of their participation. Privacy considerations were given the utmost importance, in line with the highest EU standards for secure data storage.

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Assessing Climate Resilience through the Lens of Sustainable Socio-Economic Development

In 2015, the need to 'leave no one behind' was acknowledged as the overarching objective of the United Nations 2030 Agenda and its centrepiece, the Sustainable Development Goals (SDGs).[1] Within this framework, the 193 UN member states pledged to "protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations".[2] To understand the concrete meaning of this objective it is instrumental to analyse how improved and more integrated domestic governance (i.e. the national system composed by laws, policies, budgets and institutions) can effectively reduce people's vulnerability to climate-related disaster risks, while ensuring at the same time sustainable socio-economic progress and poverty reduction.[3]

The reciprocal contributions provided by climate resilience, sustainable development and poverty reduction policies is evidenced by data. Indeed, the impact of climate-related hazards on the national economies of small island developing states (SIDS)[4] has been recorded in many catastrophic events like Cyclone Winston in 2016, which led to a decrease

of the Fijian economic growth from 3.8% to 1.3%.[5] Moreover, despite the overall lack of standard methodologies to measure and record the distributional impacts of disasters,[6] it is clearly acknowledged that the poorest and most marginalised sectors of the population are often more adversely affected by climatic shocks.[7] In the province of Rizal in the Philippines, affected by typhoons Ondoy and Pepeng, the incidence of poverty had almost doubled from 5.5% to 9.5% within 3 years.[8]

Structural connections between how national economic assets and resources are managed and the adoption of climate-smart policy approaches have been analysed by the World Bank, which estimates that 100 million additional people could be living in poverty by 2030 without concrete action in this sector.[9] Also, cost-benefit and cost-effectiveness analysis evidenced the economic returns associated with climate-resilient development.[10] These are reported in the overwhelming majority of sources reviewed, as "[p]rojects across all sectors report positive returns, including disaster risk reduction, social protection and livelihoods, investment in resilient infrastructure and public goods (e.g. flood prevention), and climate-smart agriculture".[11]

However, with specific regards to small-sized developing countries such as Dominica, the viability of these solutions needs to be considered in connection with a variety of hindering factors. On the macroeconomic level, for instance, poorer countries are less able to influence (and benefit from) global trends in technology, trade and markets. Also, climate change-driven price volatility can affect the energy sector and funding for public investments, and thus overall economic growth.[12] Smaller national systems are also more exposed to the risk of corruption and other illicit practices, especially when it comes to prevent and recover from major shocks, and this can affect governments' capacities to enhance trust among different stakeholders and legitimate their choices. On the other hand, at the local level, socio-economic exclusion and deprivation can push people into areas most exposed to climatic shocks, hindering their capacity to participate in decision-making, and inform policies and budget allocation processes based on data and evidence collection.

It is on these bases that to 'leave no one behind' can be considered as first and foremost a socio-economic development issue, and the concept of sustainability should be seen as one of its main components. Accordingly, national institutions are required to put in place effective, equitable and inclusive governance mechanisms supported by legal, regulatory, and budgetary instruments that favour sustainable development in conjunction with climate-risk resilience. Such accomplishment is inevitably related to a proper understanding of how greater cross-sectoral integration between different national norms and bodies can be achieved, especially between the ministries tasked with climate and environmental issues and those controlling the economic, development and finance agendas.

To successfully achieve such a holistic approach and more concerted action, national decision-makers are required to combine the commitments taken internationally, namely, through the Paris Agreement, the Sendai Framework for Disaster Risk Reduction 2015–2030, with the objectives of the SDGs, thus coherently implementing the 'Post-2015 Global Agenda on Climate Risk Governance'.[13] This means, for instance, to jointly consider the classic economic rationale based on average rates of GDP and economic growth with other indicators, such as those on human development, social protection and environmental protection. Also, contributions provided by a variety of stakeholders, from private entities to local civil society appears as a necessary component for exploring new and innovative regulatory approaches such as ecosystem-based adaptation, nature-based solutions or climate-smart agriculture (e.g. heat-resistant crops).

This study is based on the commonly acknowledged idea of disasters as consequences of both physical and social conditions (and not as 'natural events') which are shaped, in large part, by governance decisions.[14] As will be evidenced, the model provided by the Commonwealth of Dominica can shed light on how a national system can better adapt to – and reduce the impacts of – climate change on human communities. The following sections will investigate how this can mainly happen through strengthened climate-smart decision-making, i.e., favouring sustainable development patterns that increase resilience, do not generate new vulnerabilities, and reduce existing ones by accounting for what we know about future climate conditions.

Figure 1: Map of Dominica © Nations Online Project

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The Commonwealth of Dominica Climate Risk Profile

Known as the 'nature isle of the Caribbean', the Commonwealth of Dominica is an upper-middle-income country belonging to the category of SIDS.[15] It is part of the Windward Islands in the Lesser Antilles Archipelago (Eastern Caribbean) lying between Guadeloupe to the north and Martinique to the south. The island has fertile volcanic soil; 59% of the land area is covered by dense forest and woodland with subtropical vegetation in the valleys. Arable and cropped land extends to 32%, and the agricultural sector is a significant component of the country's socio-economic development and source of employment. The population is approximately 73.000, of which 90% reside along the coastal areas and 70% is classified as urban. The population also includes a sizeable number of indigenous Kalinago people, who have lived on the island since the 13th century.[16]

According to the most recent data on climate change impact, the Caribbean region is projected to have an annual temperature change of 1.8–2.3°C by the 2090s, with "hot" days occurring on 25–65 per cent of days by the 2060s, and 37–100 per cent of days by the 2090s.[17] Similarly, the Intergovernmental Panel for Climate Change (IPCC) projections for hurricanes in the north tropical Atlantic predict more intense storms with larger peak wind speeds and heavier near storm precipitation.[18] Within this context, even compared to other Caribbean neighbours, Dominica is increasingly exposed to such changes.

It is included in the ten countries in the world most affected by the impacts of weather-related loss events in the period 1999–2018, and is the first for 'losses per unit GDP' (20%).[19]

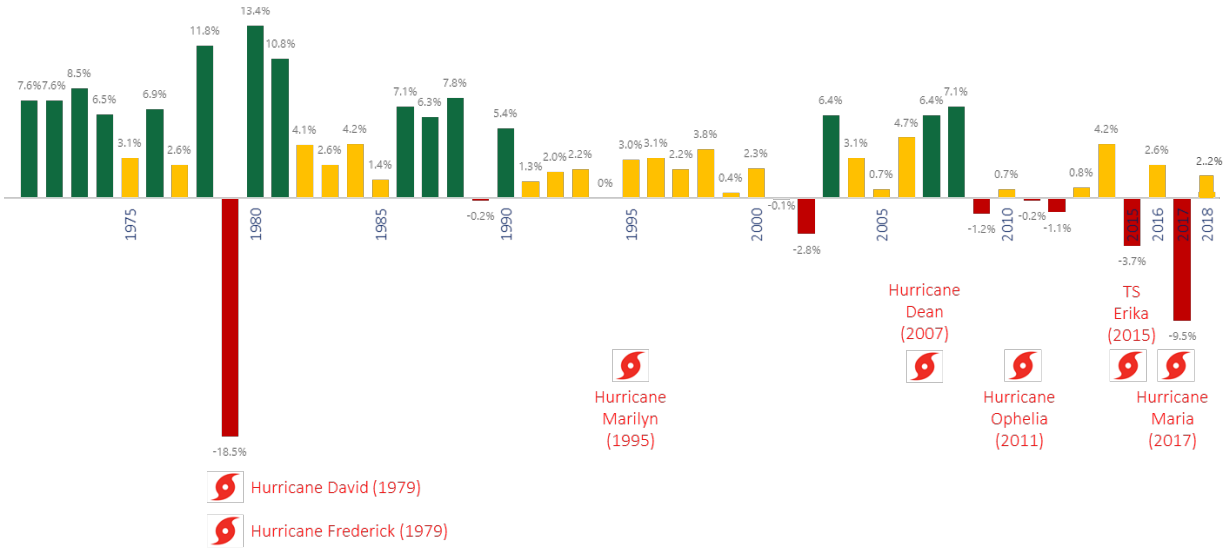
As evidenced in Section 1, such worsening trends are also influenced by socio-economic structural conditions, the roots of which can be traced back to historical trajectories. These pre-date the country's independence in 1978 and originated in the decisions taken by the French and the British colonial powers in terms of population distribution, growth patterns, investments and land use.[20] The infrastructure network is for instance highly vulnerable to hurricanes and other hazards and a lack of diversification of productive activities, that would improve their resilience, have been historically recorded.[21] Disaster risk management (DRM) law and policies did not address these issues at least until hurricane Erika in 2015, which resulted in damage equivalent to 90% of Dominican GDP, dramatically evidencing the existential threat for the country and the need to integrate this sector with medium- and long-term economic and financial planning.

In September 2017, this grave condition was dramatically confirmed by the impact of hurricane Maria, a category 5 event with 160 mph wind speed and higher gusts, which resulted in intense sea surges, torrential downpours, and overflowing rivers.[22] Around 80% of the population was directly affected, 65 people perished, more than 90% of homes were damaged or destroyed and 90% of crops and livestock were lost.[23]

Hurricane Maria severely affected both the country's economy as well as the human development of its citizens. After its passage, power and water supplies were disrupted for months, and telecommunications systems in some areas took over one year to restore. The impacts on public infrastructure, the productive sector, basic services (water, electricity, communication network) and society were likewise severe.[24] No economic sector was left unaffected. The impact of this event and other climate-related disasters on Dominica's economic growth is clearly evidenced by the consequential reduction in GDP growth at constant prices (Figure 2). The economic impact of hurricane Maria was estimated at US$ 931 million in damages and US$ 382 million of losses, for a total reduction of 226% in GDP, the worst impact of a natural hazard recorded worldwide since 1980.[25]

As can be inferred from these data, addressing the consequences of climate change and developing the capacity to cope with extreme weather events is not only a development issue but a real matter of survival for Dominica. Indeed, the country's two major economic drivers, agriculture and tourism, are being severely damaged by the occurrence of climate extremes and this is inevitably reflected in higher poverty, inequality and vulnerability rates.[26] This is also reflected in Dominica's perspectives in terms of future development and peoples' wellbeing, as it has been calculated that "the cost of no action to reduce climate vulnerability at the national level would be loss and damage equivalent to 34.3% of GDP by 2050".[27]

Figure 2: Impact of climatic events in Dominica in terms of GDP growth (Source: Dominica, CRRP 2020)



3

Assessing Integration in Dominican Laws and Policies on Climate Resilience and Disaster Risk Management

The worsening climate and disaster risk profile described in Section 2, and in particular the catastrophic impact of hurricane Maria in 2017, pushed the Government of Dominica to identify 'climate resilience' as the country's overarching goal to be accomplished via institutional and normative reforms. Such an ambitious objective, according to the relevant sources adopted in the last few years, implies not only the reduction of the impact of climate-related extreme events but also the parallel and connected boosting of its overall socio-economic development trajectory.[28] These improvements cannot but start from the adoption of a dedicated regulatory setup and an adequate institutional system in which respective roles, responsibilities and targets are identified.

Dominica is a multi-party democracy based on the Westminster System of government, with a 'ceremonial' head of state and a prime minister who is the head of government. The subdivision of competencies among different ministries can be considered as a distinctive feature of the country's institutional setting. Indeed, the main economic portfolio is primarily allocated to the Ministry of Finance, Economic Affairs, Investment, *Planning, Resilience, Sustainable*

Development, Telecommunications and Broadcasting (emphasis added), a seat that is currently occupied by the Prime Minister, Hon. Roosevelt Skerrit.[29] This unified, multifaceted portfolio is meant to be the linchpin of transformation processes towards a sustainable and resilient Dominica, mainly through advancements in information technology, policy formulation, strategic planning and management. At the same time, another Ministry is dedicated to 'Blue and Green Economy, Agriculture and Food Security', with the mission to *"protect and sustainably leverage Dominica's marine and terrestrial assets*, enhancing food and nutrition security, to drive the socio-economic development of the nation, whilst ensuring the well-being of the people of Dominica" (emphasis added).[30]

In terms of the legislative framework, the Dominican Constitution of 1978 (amended in 1984), understandably does not contain any reference to the concepts of sustainability or climate resilience – as these topics were not yet identified in policy agendas at the time. The only provision mentioning disasters is the one regulating the presidential powers in terms of the proclamation of public emergency "as a result of the occurrence of any earthquake, hurricane, flood, fire, outbreak of pestilence, outbreak of infectious disease or other calamity whether similar to the foregoing or not".[31] Accordingly, the Emergency Powers (Disaster) Act of 1987 –amended several times, the last being in 2020 – focuses on the presidential orders/regulations on certain temporary measures that can be put in place after a proclamation of emergency.[32] The government organization that has responsibility for the planning and organization of counter-disaster measures is the National Emergency Planning Organization (NEPO), chaired by the Prime Minister, and that in 2001 prepared the country's National Disaster Plan. Once activated, a pivotal role in the Plan's implementationis played by the Office of Disaster Management (ODM) that coordinates with the various departments of government and other institutions and organizations. While this mechanism includes prevention and mitigation activities, no explicit reference to DRR or climate-related hasards is included in the Plan.

In fact, in the Dominican system, the formulation of policies and strategies concerning climate issues were first adopted to engender economic growth and social advancement. For instance, the 'Low-Carbon and Climate Resilience Development Strategy' was presented to the Climate Investment Fund in 2012 with the aim of facilitating the country's transformation to a climate-resilient and low carbon development economy.[33] As part of the development policies, the Growth and Social Protection Strategy (GSPS) was adopted in 2006 following a structural adjustment programme of the International Monetary Fund (IMF) which started in 2002. The GSPS represents the single, overarching document containing the Government's goals and strategies to achieve socio-economic development objectives (at that time the focus was on the attainment of the Millennium Development Goals). This document set out five-year medium-term goals and new versions were re-crafted (covering the periods 2008–2012, 2012–2014 and 2014–2018) so as to reflect economic changes (and crises) at the regional and international level. In this context, after the passage of Hurricane Maria in 2017, the National Resilience Development Strategy (NRDS), analysed in the following section, was developed in order to incorporate more explicitly and concretely climate considerations in Dominica's new approach to growth: a 'climate-resilient and sustainable' development cutting across all sectors and addressing issues of mitigation, rehabilitation, reconstruction and sustainable development.

3.1 The National Resilience Development Strategy 2030 (NRDS) of 2018

The first regulatory instruments adopted by the Dominican government in the aftermath of Maria was the **National Resilience Development Strategy 2030** (hereinafter '**NRDS**' or the 'Strategy') of 2018. The NRDS was designed as the overall high-level policy framework to guide national recovery and reconstruction on the pathway to becoming the world's first 'Climate Resilient Country'.[34] Developed based on a national consultation which involved discussions with private and public stakeholders

Pamela Baron had to climb in through a window with a ladder to reach her 82-year-old mother Isadora Bellot who lived by herself in downtown Roseau.

on issues relating to climate resilience, the Strategy aims at integrating climate resilience and disaster risk management into the national growth and development planning framework. To do that, national development is envisaged as 'people-centred' and aligned with the achievement of the seventeen UN Sustainable Development Goals, in which the national vision is described as 'encapsulated'.[35]

The overall idea underlying the Strategy is that climate change is already affecting, and will continue to affect, many different Dominican economic sectors – both directly and indirectly – and that the characteristics of Dominica's social and economic systems inevitably play a critical role in determining its resilience, amidst other development challenges. Therefore, climate impacts cannot be addressed in isolation, as this would not facilitate efficient or effective outcomes. On the contrary, climate resilience is taken as a "developmental paradigm" to address any aspect of the country's development process in a coherent and integrated way, including both climate and non-climate considerations.[36] Actions to be pursued during the period 2018–2030 include "real investments" for growth in productive sectors (such as agriculture, tourism and manufacturing); infrastructure and human development (health and education); the targeting of the vulnerable including the poor, persons with disabilities and the Kalinago community; or a promoted adaptation and use of science and technology.[37]

The **NRDS** presents some relevant examples of good normative practice, including:

- Its flexibility, namely its being considered as a "living document" which is adjusted and updated every four years "based on annual monitoring and evaluation exercises and data emerging from new studies and surveys".[38]
- The identification of where to collect the resources for its implementation, namely from: (a) surpluses on the primary account in the annual national budget; (b) grant aid from external development partners; (c) concessional loans from multilateral and bilateral financial institutions; and (d) funds made available from possible past debt relief.[39]
- Clear structuring of a multi-layered system of responsibilities – explicitly including disaster management – distributed on four levels (household level; community level; district level; national level) for each of which a specific list of actions are indicated.[40] At the national level, the NRDS 'vision' is split and allocated across different ministries, with dedicated indications on how administrators of different sectors should conceive it.[41]
- An annex entitled 'Dominica's Resilient Development Results Monitoring Matrix', which specifies 43 'objectives', their corresponding qualitative and quantitative outcomes, as well as the specific indicators to consider for assessing their accomplishment.[42]

Moreover, one of the most distinctive features of the document is that a good number of envisaged actions – including the above-mentioned Monitoring Matrix – revolve around the concept of 'good governance'. This is viewed as the indispensable means to arrange effective coordination and implementation of development plans and improve citizens' socio-economic conditions and access to services. Interestingly, a strategic component of such improvements is identified in the review of pre-existing policies and legislation, some of which were in place long before climate change emerged as a significant issue.

Acknowledging that national strategies and action plans need to be supported by the rule of law through appropriate legislation, the implementation of laws on disaster management and the development of the legal framework to support disaster risk reduction activities are mentioned as necessary steps to ensure the effectiveness of disaster risk reduction at all levels.[43] Of note, the number of pieces of legislation achieved and that of institutions dedicated to the 'resilience vision' are considered as the indicators on which the enactment of a fully functional Resilient Framework is evaluated.

3.2 The Climate Resilience Act (2018) and the Climate Resilience Execution Agency (CREAD)

In line with the vision set up by the **NRDS**, described in the previous section, a **Climate Resilience Act** was developed by the Dominican government and adopted unanimously by the Parliament in December 2018. Defined as the first of its kind globally, this legal instrument aims at promoting not only a "swift and cost-effective recovery of Dominica from climate-related disasters" but also to "disaster-proof" all aspects of public and private life.[44] In the aftermath of Hurricane Maria's catastrophic impact, this was meant to rebuild the Commonwealth of Dominica as a climate-resilient nation "better able to withstand future hurricanes, earthquakes and other natural disasters with minimal loss of life and minimal damage to infrastructure, property and livelihoods".[45]

In concrete terms, such a goal is expected to be obtained by ensuring that any kind of infrastructure damaged or destroyed during a climate-related disaster is reconstructed or restored "to a state that is better than before"[46], and to better equip public and private sectors and civil society to manage the risk and recover from the event, avoiding duplication and maximising available resources also through a reduction of critical gaps in funding.[47] The accomplishment of these ambitious objectives is mainly envisaged by the Act through major improvements in terms of public service institutions, namely through the creation of a **Climate Resilience Policy Board** and a **Climate Resilience Executing Agency.**

The **Policy Board**, chaired by the Prime Minister and comprising six persons appointed by him/her among public servants and/or persons with relevant expertise, is designed as the centralised political body defining measures to take and approving the related planning of priorities, targets and goals.[48] Some elements of good normative practice can be highlighted in this context. First, the Policy Board is tasked with the review and approval of short- and medium-term (annual and 4-year) operational and business plans, thus allowing a constant – but also forward-looking – realignment of budget expenditures (including CREAD's) on an ongoing basis.[49]

Secondly, the Act foresees that the development of national standards on climate-resilient measures must be accompanied by the necessary administrative and legislative 'means' enabling their concrete implementation, thus establishing a normative link between binding and non-binding regulatory tools.[50]

As mentioned above, the Act also mandates the creation of a **Climate Resilience Execution Agency** (hereinafter the 'Agency' or 'CREAD'). This is the specialised execution body in charge of integrating climate resilience into Dominica's infrastructure development, capital projects, reconstruction activities as well as in all government plans and policies including in the energy, food production and transport sectors.[51] In line with the overall direction provided by the Policy Board[52], CREAD's functions mainly concern: the execution of projects (i.e. their prioritisation, acceleration and sequencing, also through the expedition of granting of approvals, permits and licences); the optimisation of resources (avoiding duplication, maximisation of economies of scale, identification of critical gaps, via the setting up of a database of present and future needs); monitoring and evaluation of project progress and of their social and economic impacts. Along these lines, the Agency is designed to act "on a continuous emergency footing", as the new projects will first be evaluated in its "coordination room" which can decide where they are best delivered (whether from line Ministries, a partnership between CREAD and the donor or by CREAD itself).[53] The Act also stipulates that all the functions mentioned above should be detailed in a dedicated Dominica Climate Resilience and Recovery Plan (CRRP) specifying recovery priorities, targets and goals (see Section 3.2).

Among the main parameters that the Act sets out for the CREAD's functioning, great normative importance is given, in line with the NRDS, to the respect of the basic tenets of good governance and proper management. Indeed, the Agency is required to operate "in accordance with the highest standards of transparency, financial management, accountability and community engagement".[54] Of note, the

establishment of assurance systems that protect against fraud and corruption and set the highest standards of transparency is included among its main functions.[55] A role for an 'Audit and Risk Committee', is also regulated, to ensure that the executing agency operates within the highest standards in donor procurement and tender practice.[56] Also, democratic control is arranged through the establishment of a Committee of the House of Assembly, the CREAD Parliamentary Oversight Committee, to which the Chief Executive Officer of the Agency shall report at least every six months.[57]

As a counterbalance to the centralising approach that characterises this institutional reform, the engagement with the communities can be considered as an important component of the Act's regulatory aim. Indeed, public consultations and community engagement (per the Act's definition including "discussions with representatives of Indigenous Peoples, non-governmental organisations, women, persons with disabilities and the elderly"[58]) must be ensured in the design, implementation and evaluation of all projects managed by the Agency.[59] Also included are 'stakeholders' forum meetings at least twice a year to engage in dialogue with, and receive feedback from, civil society, the private sector, and other interested individuals on its work and proposed work plan'.[60] While the policy board is mandated to advise the Government on the promotion, "through public messaging or other means", of any measures taken[61], the CREAD is mandated to disseminate relevant information throughout the public and private sectors[62], thereby building knowledge, practices and attitudes that enhance the resilience to extreme weather events among families, businesses and civil society.

3.3 The Dominica Climate Resilience and Recovery Plan (CRRP) of 2020

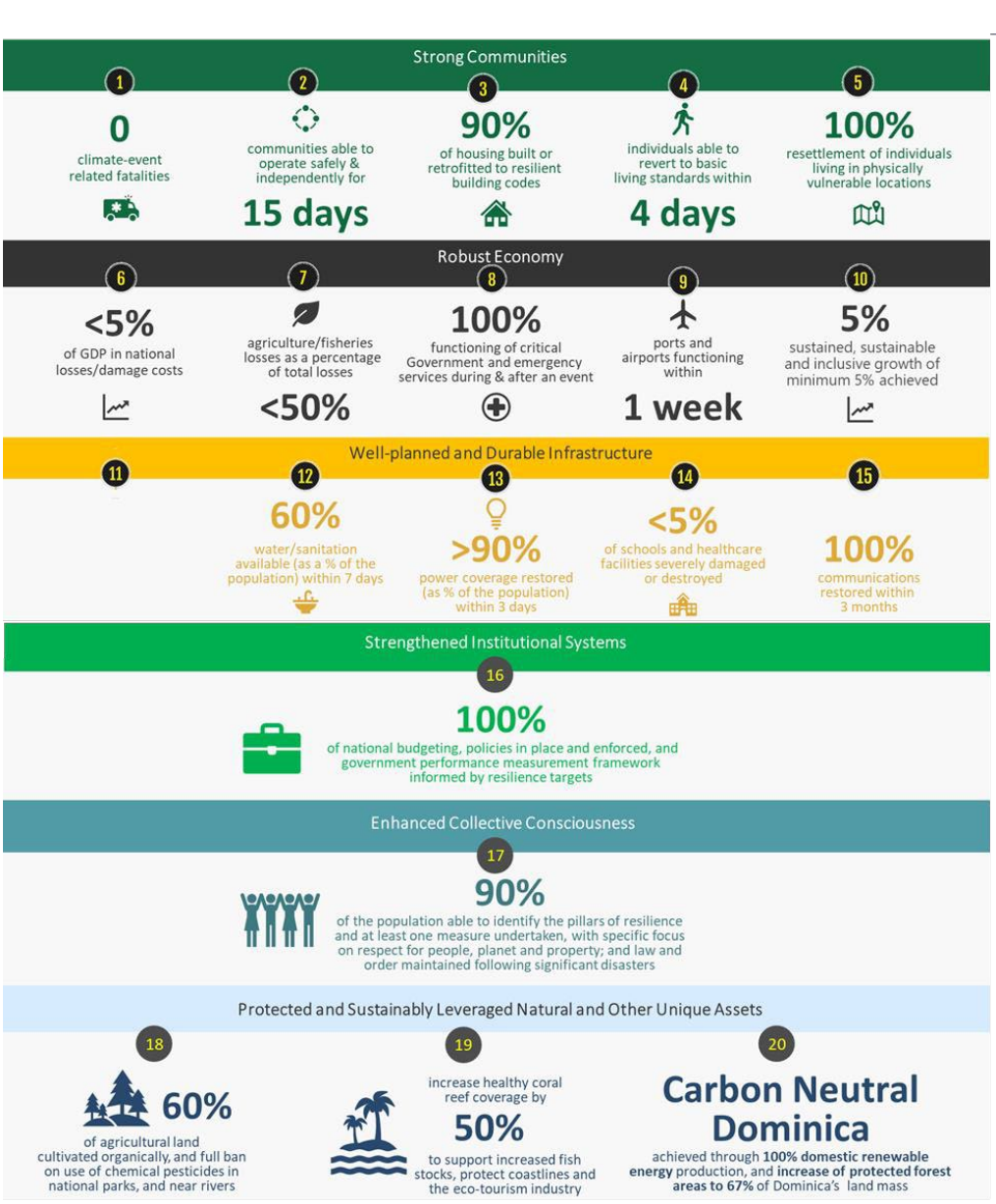
Drafted and presented in 2020 by the Ministry of Economic Affairs, Planning, Resilience, Sustainable Development, Telecommunications and Broadcasting, the **Climate Resilience and Recovery Plan** (hereinafter the 'Plan' or 'CRRP'), represents the fulcrum of the current government's vision on how to make Dominica the world's first climate-resilient nation.[63] In the document, this goal is mainly pursued through the 'operationalisation' of the NRDS, namely its translation into specific initiatives and activities. As previously indicated by the same NRDS, the CRRP is built on 'three pillars of resilience', namely (1) Climate Resilient Systems, (2) Prudent Disaster Risk Management Systems, and (3) Effective Disaster Response and Recovery.[64] In particular, the CRRP narrows down the Strategy's goal into 20 specific climate resilience targets, framed within 6 more general 'result areas'. Also, the Plan prioritises 10 'high impact initiatives' which are considered as particularly efficient in terms of cost-benefit assessment.

Consideration of the topics respectively defining the six 'results area' is particularly significant for the understanding of the cross-sectoral nature of the **CRRP**. In fact, these refer to issues of a very different nature:

1. **Social:** "Strong communities, which have the capacity to absorb stress or destructive forces through resistance or adaptation [...]";
2. **Economic:** "Robust Economy, which [limits] the magnitude of immediate production losses for a given amount of asset losses and the ability to reconstruct and recover quickly";
3. **Physical:** "Well-planned and durable Infrastructure [ensuring] that critical physical infrastructure can absorb shocks or can fail safely";
4. **Cultural:** "Enhanced collective consciousness [with a focus] on valuing national resilience and respect for people and environment";
5. **Institutional:** "Strengthened institutional systems [for efficiently delivering] on Government's comprehensive socio-economic development mandate"; and
6. **Environmental:** "Protected and Sustainably Leveraged Natural and Other Unique Assets [valuing] the unique assets of the country".

As illustrated by Figure 3 below, the 20 Climate Resilience targets the government of Dominica committed to achieving by 2030 are differently grouped into each of the results areas mentioned above, each of which is also connected to one of the three pillars of the **NRDS**.

Figure 3: Dominica's Twenty Climate Resilience Targets (Source: Dominica, CRRP 2020)



As can be noted, these specific targets not only refer to the different phases of the disaster risk management '*continuum*', ranging from risk reduction to response and recovery, but in some cases have also an enlarged scope including quantitative goals directly linked with socio-economic processes and to the sustainability of economic growth and development. This is the case for instance with: Target 10, for which a "sustained, sustainable and inclusive growth of minimum 5%" needs to be achieved by 2030; Target 16, foreseeing that "100% of national budgeting, policies in place and enforced, and Government performance measurement framework" are informed by resilience targets; or Target 18, for which "60% of agricultural land cultivated organically, supporting environmental protection and the sustainable development agenda". These targets are expected to be realised through about fifty planned and ongoing initiatives closely aligned to the six results areas.[65]

A similar all-encompassing approach features the ten 'critical' climate resilience initiatives to be delivered, according to the plan, as a matter of immediate priority. These include for instance the transformation of the country into a 'Global Centre for Agriculture Resilience', through an appropriate policy and legislative framework reconfiguring the production chain from the farmers to end-users, and meant to become a model for best practice regionally and internationally.[66] More specifically, this action is centred on the development of a scientific and practical approach to reducing the vulnerability of farmers and fisherfolks through the adoption of climate-resilient practices, as well as the introduction of climate-resilient crops and infrastructure.[67] Another priority action concerns the development of a revised Public Sector Investment Programme (PSIP) through the adoption of new methodologies and performance management frameworks.

Figure 4: Dominica's commitment to the SDGs, and how the CRRP links to these and the SFDRR (Source: Dominica, CRRP 2020) .

Resilience outcome	Sustainable Development Goals (SDGs)	SFDRR[1] 1	2	3	4
1 Strong communities	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓			✓
2 Robust economy	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓		✓	✓	✓
3 Well-planned and durable infrastructure	✓ ✓ ✓		✓	✓	✓
4 Strengthened institutional systems	✓ ✓ ✓ ✓		✓		
5 Enhanced Collective Consciousness	✓ ✓ ✓ ✓ ✓ ✓ ✓	✓	✓		
6 Protected and sustainably leveraged natural and other unique assets	✓ ✓ ✓ ✓			✓	

Budget-setting process and criteria are therefore being synchronized to Dominica's climate resilience targets specified in the **CRRP**, along with globally recognised Sustainable Development Goals (SDGs) and SDG-related indicators.[68] Of note, the reference to favouring the above-mentioned progress along the lines of the SDGs is not limited to this action. On the contrary, as indicated in the table reproduced in Figure 4, the document establishes a clear connection between its resilience outcomes and the main international frameworks of reference, namely the SDGs and the Sendai Framework for Disaster Risk

Reduction 2015–2030 (SFDRR). Interestingly, all the CRRP commitments are linked with one or more Goals (with a particularly high number of connections for the 'Strong Communities' and 'Robust Economy' areas) as well as with one of the four priorities of the SFDRR.[69]

With this aim, a 'Performance Measurement Framework' for the **CRRP** is being created to provide further information on indicators, including baseline information, which is currently missing for some goals (i.e. it is not clear what the starting point is in 2020). The Dominica Centre of Excellence for Data in Resilience Decision-making is expected to play a critical role in managing data and tracking progress across the **CRRP** from 2020–2030. In the meantime, the **CRRP** is complemented by a section including detailed tables where all its components (result areas, goals, and targets) are systematised and spelt out in terms of 'intermediate outcomes', namely quantitative results expected by 2025, and output milestones (to be completed before 2021/2022) and related initiatives.

In this context, the role of laws and policies as key components in advancing towards the definition of more integrated risk governance, as well as informing progress on economic development and budget-setting, is particularly evidenced in the table below on the strengthening of the institutional systems (See Figure 5 below). As can be observed, the goal of having "resilience integrated into development and investment planning" needs to be supported by "legislation, policies and regulations, and enforcement mechanisms". At the same time, the updating of existing policies and regulations, as well as the development of new ones, appears as one of the most relevant initiatives to be taken in this direction.

A final element to highlight is that a relevant role for law- and policy-making is similarly mentioned within the context of the initiative concerning the development of the 'Resilient Dominica Physical Development Plan' (RDPP). This Plan, not available at the time of writing, is expected to address "the condition of physical infrastructure, the risks/hazards that threaten its intended use, the standards required to achieve that resilience, and the scope/cost/time required to achieve resilience".[70] The need to institutionalise the RDPP through a proper legislative and institutional framework, as well as to adopt special redevelopment plans for the main cities of Roseau and Portsmouth, are stated by the CRRP to "ensure its success" and avoid it becoming an "innocuous document".[71] Likewise, in a similar manner to the other policies previously analysed, mechanisms for annual reviews are seen as necessary tools for keep pace with changing priorities and conditions, and a funding and prioritisation strategy for each sector must also be developed to ensure legislation and institutional arrangements address all aspects of implementation.[72]

People waiting at a health center which was able to keep its doors open after the hurricane.

Figure 5 (Source: Dominica, CRRP 2020)

STRENGTHENED INSTITUTIONAL SYSTEMS				
Goal	**2030 Target**	**Intermediate outcomes (2025)**	**Output milestones (2021/22)**	**Initiatives**
Resilience integrated into development and investment planning, supported by legislation, policies and regulations and enforcement mechanisms. An enhance ability to respond to and recover from shocks.	100% of the national budgeting, policies in place and enforced and government performance management framework informed by resilience targets.	• Enforcement of all building codes, resilient infrastructure, agriculture and tourism standards – 70% by 2025 [100% by 2030] • 50% of national budget aligned to CRRP by 2025.	• Physical plan drives all infrastructure projects and land use decisions – 100% by 2021 • All relevant policies and regulations aligned to CRRP – 100% by 2021 • Ministry strategic plans delivered on time and on budget and aligned to CRRP – 90% by 2021 [100% by 2030} • All government entities capture and use relevant data as basis for strategic planning and decision-making – 100% by 2021 • All government entities structured and staffed with resources to deliver their climate resilience missions – 90% by 2021 {100% by 2030} • ODM staffed to CDEMA recommendations by 2021 • Annual whole-of-government disaster response simulation carried out once a year from 2020	i. Updating existing policies and develop new policies and regulations ii. Enhancing Budget-setting and Public Sector Performance Management Framework iii. Updating Government Continuity Plan iv. Centre of Excellence for Data in Resilience Decision-making (see Well Planned and Durable Infrastructure) v. Enhanced Disaster Risk Management Agency vi. Government continuity plans (see Robust Economy section) vii. Completing the Resilient Dominica Physical Plan viii. Developing a Digitalized Land Management System

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4

Key Findings on Integrating Sustainable Socio-Economic Development in Dominican Climate Resilience Law and Policies

Section 3 has described how, since 2017, the Commonwealth of Dominica has developed an original climate-risk governance system through the adoption of regulatory tools which have laid out the basis for an integrated and centralised model.[73] This is characterised by the joint consideration of two main objectives, namely, to reduce Dominica's exposure to climate-related risks and ability to recover from them; and to adopt comprehensive planning of measures supporting sustainable social and economic advancements. Drawing from this model, and thanks to information from relevant literature as well as to findings provided by key informants supporting this research (see Annex 1), this section consolidates some critical observations and identifies the main distinctive features of the Dominica system of governance.

Overall, it can be noted that a well-established, consistent, and reliable legal and policy set-up is considered as a key requirement for effective and well-functioning strategic action across sectors. This approach clearly emerges in the **CRRP**, which frequently states the need to ensure the appropriate legislative and institutional frameworks, as well as the updating of existing legislation/bills to identify gaps

in regulations, as preconditions for a strong planning process and effective implementation.[74] This is also in line with the declared intentions stated by the **NRDS**, namely that the legal and judicial systems need to be "credible and stable", which in turn leads to the identification of clear institutional mandates, promotion of human rights and to "ensure social justice".[75] Remarkably, a constant but harmonised reform of existing legislation, as well as a continuous evaluation on its effects, are considered as pivotal for ensuring a fair, reliable and environmentally-sound social and economic development.

Along these lines, as already noted in Section 3.2, the intention to guarantee the highest standards of transparency, financial management and accountability is reiterated by the **Climate Resilience Act**, in light of the goal "to promote the swift and cost-effective recovery of Dominica from climate-related disasters".[76] In a small and vulnerable economy with high dependence on foreign capital, this is particularly relevant in light of the need to create a trustworthy and consistent context attracting necessary investments for achieving the climate resilience vision and related strategic targets for 2030. The provision of support, including legal expertise, to assist in building the capacity of the Dominican government to meet donor conditions for a drawdown of funds, procurement, climate-resilient planning and project management is also clearly stated as one of the functions of **CREAD**, whose Supervisory Committee – tasked with overseeing the assurance systems and audit mechanisms – is formed by a majority of members nominated by donors.[77] A robust economy is also to be built internally, as planned in the **CRRP**, through the creation of innovative and culturally appropriate risk transfer instrument to assist farmers and fishers recover from the impacts of extreme weather events, including innovative insurance solutions to protect borrowers and lenders from economic losses of extreme climatic events.[78]

Beyond the overall considerations above, three more specific and distinctive elements of the Dominican regulatory model can be identified, and will be discussed in the following sub-paragraphs.

4.1 The Vertical Alignment with the Global and Regional Level

Based on the conviction that becoming the first climate resilience country in the world is a target that cannot be achieved unilaterally, synergies with both global and regional instruments manifestly play an important role in developing the system of governance described in this study. Even though the link with supranational bodies and documents is almost absent in the Climate Resilience Act (the term 'international' appears only twice and only concerning the possibility for **CREAD** to receive funds and resources from an international organisation),[79] relevant points of contact with the intergovernmental agenda have been included in both the Dominican policies for this sector (i.e. the **NRDS** and the **CRRP**). As described in Section 3.3, the intention of "tying things together" is made clear in the **CRRP**, which identifies the SDGs and the Sendai Framework as the key international frameworks of reference, to be considered together with Dominica's national commitments under the Paris Agreement.

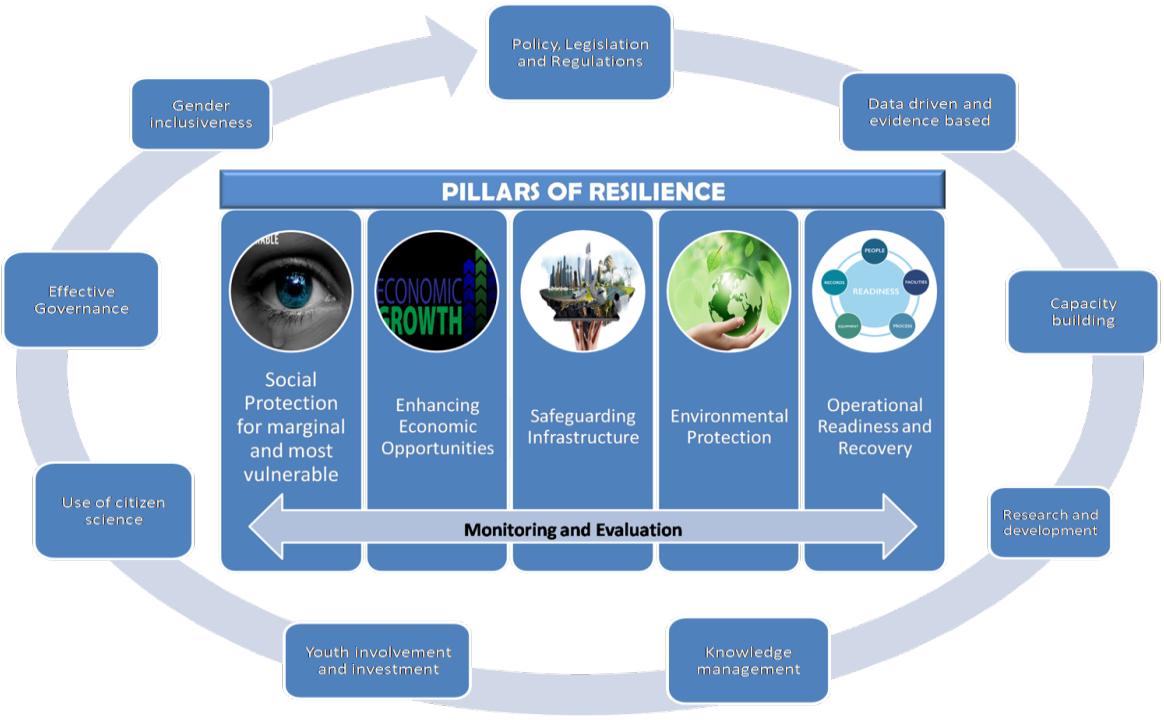
Similarly, the **NRDS** devotes notable attention to the 2030 Agenda for Sustainable Development, the SDGs and their specific targets, considered as a key framework of reference to attain a sustainable development pathway.[80] To accelerate the formalisation of the arrangement that will allow Dominica to effectively carry out its commitments on sustainable development progress under the 2030 Agenda and the SDGs, their integration into education, training, and research programmes is an objective reiterated by the government in the **NRDS**.[81] Interestingly, a key connecting role is recognised for the Caribbean Community (CARICOM) as the regional organisation that identified a set of core targets and indicators that are "ambitious but achievable" to support the monitoring of the 17 SDGs in the region.[82] Such "regionalised" indicators are meant to be mainstreamed in national and sub-national development frameworks and are also used for reporting progress on the CRRP.[83]

With regards to the above, the Dominican model reflects – and is reflected in – the 'Caribbean Pathway for Disaster Resilience', a high-level document adopted in 2018 by the region's Heads of

Government with the support of both the CARICOM and the Caribbean Disaster Emergency Management Agency (CDEMA).[84] This document, which consolidates the aspiration of the Caribbean countries to share the same view concerning common climate threats, also led to a common definition of "what resilience looks like" in the region and provided the associated metrics to track relevant progress in this field. The multidimensional nature of the concept of resilience as conceived in the Caribbean context is clearly spelt out in the five 'Pillars of Resilience' identified in the document and illustrated in the figure below (Figure 5).[85] Interestingly, the document mentions as the first key foundational and reinforcing element which facilitates the delivery of the five pillars "An enabling environment guided by Policy, Legislation and Regulations".[86]

This comprehensive approach is also reflected in the concept of Comprehensive Disaster Management (CDM) – spearheaded by CDEMA since 2001 – that was taken as a point of reference to provide the basis for the critical link between disaster management and sustainable development.[87] Importantly, the Dominican Draft Comprehensive Disaster Management Bill – before Cabinet for approval at the time of writing – includes as one of its primary purposes, "to *develop, promote and implement an approach to disaster management that is holistic, comprehensive, integrated, and proactive in lessening the negative socio-economic and environmental impacts of disasters including climate change…".*[88]

Figure 6: The pillars of resilience in the Caribbean region (Source: CARICOM and CDEMA, Building a Caribbean Pathway for Disaster Resilience in the Caribbean Community)



4.2 The Importance of Natural and Environmental Factors

The centrality of the natural environment and ecosystems is another distinctive feature of the law and policy-making approach to climate-resilience adopted by Dominica since 2017. This is not only in line with the often-reiterated branding of the country as 'The Nature Isle', but also a way of seeing natural resources as one of the founding elements of the country's system of governance, and therefore as one of the substrates on which law and policies in relevant sectors are built. This vision, widely shared through the Dominica society, is based on the value of dependence on the natural environment, including the soil, for survival. The strong attentiveness to nature is a core component of the Dominican model and represents the linchpin without which a sustainable combination of economic progress, including increased productivity, comprehensive disaster management and the protection of ecosystems (e.g., forests, watersheds, marine spaces) would have been impossible.

It is not a surprise that "Protected and Sustainably Leveraged Natural and other Unique Assets" is one of the six 'result areas' of the CRRP,[89] and similarly, that to enhance the resilience of ecosystems and the sustainable use of natural resources is recognised as one of the seven multiple development objectives of the NRDS.[90] More concretely, among the several domains described in the Strategy, the one on 'Forest Resource Management' exemplifies the multifaceted relevance of the natural environment in the Dominican system. Forests of Dominica, covering 60% of the land area, are recognised as one of the best remaining tropical rainforests in the Eastern Caribbean. These comprise five types of ecosystems, namely dry scrub woodland, seasonal forest, rain forest, montane and elfin, and some Forest reserves and national parks are protected by the Forest Act (1958) and the National Parks and Protected Areas Act (1975). The protection of Dominica's biodiversity is also regulated by a dedicated Strategy and Action Plan adopted in 2000, which stressed that this was under threat largely from the impact of natural hazards, climate change and human activity (deforestation, over-exploitation of wildlife; unregulated development).

However, recurring extreme weather events like Hurricane Maria represent an increasing challenge to the proper management of these resources as they can produce widespread damage to the forest system and related ecosystems. This also affects several aspects of social and economic life such as property/infrastructure protection and access, eco-tourism, and water resources. In this sense, reforestation and specific activities like 'Forest Enrichment Planting' of areas impacted by extreme weather events and Agroforestry/Silvopastoral systems on degraded lands can provide multiple types of benefits, including socio-economic growth.[91] These range from maintaining soil stability and fertility to enhancing ecosystem and biodiversity, therefore providing increasing opportunities for nature/eco-tourism, agricultural production, sources of wood and raw material for small-scale industrial use, and consequently more work opportunities for community members.[92]

This evidences how, to achieve all of these outcomes, a systemic and forward-looking regulatory approach has to be pursued across sectors, from land management practices to ecosystem-based projects to adaptation and early warning systems (EWSs). Such approaches include, for example, integrated water and coastal resources management, including restoration of riparian forests and mangroves sites located in protected areas and/or key ecosystems that use nature as a solution to reduce vulnerability to climate change.[93] The same approach is also confirmed by the provision included in the Draft Comprehensive Disaster Management Bill, according to which the future Department of Disaster Management will also have the function to "encourage the mainstreaming of disaster risk reduction and climate change in development processes such as policy formulation, socioeconomic development planning, budgeting, and governance, *particularly in the areas of environment, agriculture, water,* [and] *land-use planning* ..."[94]. Also, the future Director of the Department – in collaboration with other governmental agencies – will have the power and duty "to participate in programmes to conduct investigations, studies, surveys, research and analysis relating to ecological systems and environmental quality".[95]

4.3 Social Inclusivity and Protection of the Most Vulnerable

The acknowledgement that inclusive law and policies are instrumental for climate resilience is another aspect that can be traced out throughout the entire regulatory system in Dominica. While national laws and policies in analysed sectors often mention the relevance of social inclusivity and gender integration, the recognition of social identities and norms, including those of indigenous people, is identified as a necessary component of normative tools for sustainable and climate-resilient development "in all areas and at all levels".[96] This includes not only taking into account existing social and economic inequalities between men and women in the drafting and application of the measures and programmes decided by normative instruments, but also the attenuation of challenges and obstacles faced by the most vulnerable and disadvantaged groups, for which special provisions need to be adopted.[97]

Ensuring inclusive and transparent participation in bottom-up decision-making and that delivery entities will be led by a principle of equality in project design and implementation are critical in this sense. The establishment and regulation of social protection programmes are also key, being the main tools to guaranteeing non-discriminatory treatment and proactive measures potentially ensuring reduction of vulnerability, equal opportunities of improving the well-being and personal conditions, as well as the enjoyment of basic rights to every citizen.

For instance, among the numerous references to the need to consider and address specific vulnerabilities of certain categories of the population, the issues of disability, gender and age are widely addressed by the regulatory framework described so far. If the **NRDS** foresees improved data collection, data management, and mapping of the most vulnerable by location, sex, type of disability and functional capacities,[98] the **Climate Resilience Act** specifies that **CREAD** shall serve the interests of the nation of "the Commonwealth of Dominica as a whole, giving due consideration to the needs of persons who are vulnerable on account of their age, gender or disability".[99] Moreover, several implementing projects included in the **CRRP** aim to support an inclusive approach to societal resilience and "build trust among people in all their diversity".[100] Among the functions and powers of the future Department of Disaster Management, the current version of the CDM Bill includes that it will "collaborate with relevant agencies, nongovernmental organizations and faith-based organizations [...] in ensuring that disaster risk reduction and climate change measures are gender responsive".[101]

Also, the 'leaving no one behind' perspective has been clearly declined with regards to the poorest sectors of the Dominican population. As a concrete example of this, regulations on access to land and ownership can reduce social marginalisation and economic inequalities, while at the same time represent an opportunity to manage disaster risk and favour development. Along these lines, land management is recognised as critical for poverty reduction in rural areas, and Dominica's National Land Use Policy (2014) currently provides overall direction on all land-use decisions. For instance, it aims issue clear and incontestable legal ownership titles and addresses indigenous people's land rights to engender further their socio-economic development. To favour integration, the **NRDS** states that "[it] will be used *in tandem with legislation and other policies* to address land tenure and land market development and pro-poor land access" and that "[its] implementation is meant to ensure an equitable, proper and efficient system of land management, distribution, land tenure security, eradication of illegal settlements, and the control of ownership concentration".[102]

Schemes of social land concessions with titles for settlement and agricultural production, updated legislation on surveying and mapping standards, and 'Strategic Development Zone Plans' for small areas and districts are three examples of practices that the country has committed to undertake to reduce people's exposure and vulnerability (in the way it is connected to hazard mapping and infrastructure planning) but also build resilience and revitalise the economy. The "Responsible Land Stewardship Initiative" included in the planned activities of the **CRRP** is particularly meaningful in this sense as it aims to build community knowledge on land use decisions (including how to plan construction with due regard to environmental concerns such as landslides or avoiding flood prone areas) but also in soil restoration practices, stewarding of natural biodiversity, shoring of ravine and waterways, and prevention of landslides, so as to ensure that vulnerable and at-risk populations are especially targeted.[103]

The village of Layou, home to 90 families, was badly destroyed along with rest of Dominica when hurricane Maria struck.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5

The Way Forward

Greater integration in CCA-DRM in legal frameworks represents a key improvement in addressing climate and disaster risks. However, the medium-long term impact of the integrated regulatory framework described in this study will be assessable in a few years. What can be said at this stage is that its successful accomplishment will depend on a wide variety of factors, ranging from continuous political will, transparent monitoring and evaluation activities, the availability of concessional finance, citizen participation and interest in holding government to account. Concrete and effective implementation of projects will also need to rely clear data, such as projections and probabilistic modelling on expected impacts of climatic trends. For this to be possible, considering that limitations in measuring equipment have previously restricted the ability to maintain meteorological records of interior areas,[104] the Dominican government will have to allocate enough resources to data collection and consistent measurement tools for different types of risks, including climate ones, flexible enough to favour their usability in different agencies and ministries.

The same can be said with regards to information on climate resilience expenditure, for which a constant effort of monitoring and evaluation needs to be put in place. Information on how present and future resources will be devoted to the implementation of the array of activities and institution functioning (see

CREAD budget) will need to be collected regularly, reducing administrative fragmentation, thus favouring the respect of principles of good governance such as accountability and transparency, and also allow for a public control (parliament and CSOs). The detailed identification of delivery lead and support entities annexed to the **CRRP**, with responsibilities associated with the cost of each of the activities, represents a good starting point in this sense. Collected evidence and data on the benefits of investing in ex-ante resilience projects (i.e. on building and infrastructures) such as higher return to private investments, improved employment and output performance, and better continuity in public services after a disaster, should inform decision-making.[105]

Whether the hopes and expectations for the successful accomplishment of the objectives analysed above will be met is still to be seen. The centralisation of governmental responsibilities assigned to the Prime Minister, who is also Minister of Finance, Economic Affairs, Investment, Planning, Resilience, Sustainable Development [...], as well as the wide powers with which CREAD was endowed, could represent two elements facilitating effective and relatively rapid implementation over the next years. However, the aim for efficiency and promptness should not represent a reason for overlooking conformity with all existing regulations, as for instance in terms of building codes and/or environmental protection. Also, an enhanced and effective involvement of CSOs in decision-making and project implementation, including the Dominica Red Cross, will need to be ensured as a necessary 'bottom-up' component linking governmental decisions with communities at the grassroot level.

The global outbreak of novel SARS-CoV-2 coronavirus, while not directly affecting the country at the time of writing, is a temporary hindering factor for the implementation of the country's new governance on climate resilience, especially for the new prioritisation of international support and funding. However, Dominica already represents a model for other countries sharing similar characteristics, both in the Caribbean and elsewhere. To export and share this 'format' on climate resilience with other governments is identified in the **CRRP** as an envisaged goal, through a methodology aimed at providing "systematic frameworks, programmes and metrics which can be developed to suit other nations".[106] Documenting and sharing the country's experience, especially on the added values provided by the establishment of **CREAD** as a unified delivery entity driving climate resilience ambitions, will certainly represent a key experience that other countries should look to as a potential 'leading light'.

Bridgette Esprit spent hours walking over the hills to reach her home after Hurrican Maria.

List of Suggested Improvements

The following suggestions are primarily, but not exclusively, addressed to decision-makers in countries – like Dominica – that are geographically small and/or economically fragile. This is because such conditions, together with other socio-economic factors, make law and policy-making in key governmental sectors highly dependent on climate change patterns and extreme weather events. The macro-economic effects of multiple climate-related shocks on these countries' national economic activity, development and production capacity can be large, and often aggravated by high levels of debt and underdeveloped private insurance markets. A more integrated legal framework constitutes a critical component of any resilience strategy, and a synergic combination of climate and disaster risk-management, economic development and social protection systems is, therefore, a necessary objective of any law and policy reform or revision. Of course, every system of governance needs to be considered on the basis of its own characteristics, both physical and societal. In this sense, understanding respective national historical and cultural factors represents a necessary starting point.

Taking into account the considerations above, and also suggestions provided by KIs, effective climate resilience law and policies that comprehensively link risk reduction and adaptation plans to longer-term sustainable development ambitions should:

- Be based on a comprehensive strategy that provides a 'roadmap' for their design, sequencing and implementation. This can be obtained mainly by ensuring sufficient funding, levels of expertise and human resources, equipment and information management systems, including online opendata to facilitate monitoring and inter-institutional coordination.
- Build on transparent consultations with citizens (including young people, vulnerable groups and hard-to-reach populations), as well as with the widest array of other stakeholders including the private sector and relevant CSOs. Local governance and project implementation mechanisms have a critical role to play to facilitate effective community engagement.
- Ensure no discrimination and be grounded in a clear assessment of localised socio-economic vulnerabilities. This can happen by strengthening climate perspectives in existing social protection systems; government cash transfer programs for livelihoods requalification; microinsurance initiatives and stimulation of local and sustainable economies.
- Favour *ex-ante* planning and investment in structural resilience, e.g. reforming building codes and planning and zoning laws; the consideration of existing technologies for safe building with lower cost materials; and new climate-informed testing and certification systems. This should also include professional education reform that adequately prepares people for entrepreneurship that combines sustainability, growth and innovation.
- Favour the improvement of environmental practices that build climate resilience (i.e. utilize the natural environment and its assets to manage risks while recognising its potential future economic, social and cultural value) through the use of incentives and disincentives. This can happen by highlighting the economic opportunities and benefits of ecosystem-based programmes on, among others, integrated water resource management; waste management; land use; sustainable agriculture and forestry management practices.
- Improve financial resilience, i.e. the capacity to cope with and manage fiscal/financing shocks by favouring the creation and use of risk-transfer instruments, and developing the insurance market including targeting low-income households. This can be facilitated by coordination with external development partners and the catalysation of donor support, climate funds, and other financial resources. The identification of immediate co-benefits and dividends of long-term resilience programmes can help make these investments more attractive.
- Benefit from, and contribute to, peer learning and experience-sharing among similar countries (primarily through the SIDS partnership) and regional intergovernmental agencies. These agencies can support the development and replication of good models of governance across the regions.

BIBLIOGRAPHY

ACAPS, *Dominica: the Impact of Hurricane Maria* - Disaster Profile (January 2018).

Barclay Jenni et al., *Historical Trajectories of Disaster Risk in Dominica*, in 'International Journal of Disaster Risk Science' (10/2019).

Benson Charlotte et al., *Dominica: Natural disasters and economic development in a small island state*, ODI - Working Paper Series No. 2, World Bank (2001).

Dominica Office for Disaster Management (ODM), *Disaster Risk Reduction Country Profile* (2014).

Eckstein David et al., Global Climate Risk Index 2020 - *Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events in 2018 and 1999 to 2018*, Germanwatch Briefing Paper (2019).

Emas Rachel, *The Concept of Sustainable Development: Definition and Defining Principles*, Brief for GSDR 2015 (2015).

Government of the Commonwealth of Dominica, *PDNA Post-Disaster Needs Assessment Hurricane Maria September 18, 2017* (2017).

Hallegatte Stephane et al., *Shock Waves Managing the Impacts of Climate Change on Poverty,* World Bank Group (2016).

International Monetary Fund Policy Paper, *Building Resilience in Developing Countries Vulnerable to Large Natural Disasters* (June 2019).

Kelman Ilan, *Linking disaster risk reduction, climate change, and the sustainable development goals* (2017) 26/3 Disaster Prevention and Management, 254–258.

Natoli Tommaso, *Compendium on the Post-2015 Global Agenda on Climate-Risk Governance,* UCC Centre for Criminal Justice & Human Rights (2020).

OECD, *Assessing the Real Cost of Disasters. The Need for Better Evidence*, OECD Reviews of Risk Management Policies (2018).

OECD, *Climate Change Risks and Adaptation, Linking Policy and Economics* (2015).

Price Roz, *Cost-effectiveness of disaster risk reduction and adaptation to climate change*, Institute of Development Studies (2018).

Savage Matthew, *Evidence paper on VFM of investments in climate resilient development,* Oxford Consulting Partners for Evidence on Demand (2015).

UNDP, *What Does It Mean to Leave No One Behind? A UNDP discussion paper and framework for implementation* (July 2018).

Wilkinson Emily et al., *Building back better - A resilient Caribbean after the 2017 hurricanes,* ODI Briefing note (January 2018).

World Bank, *Natural Hazards, UnNatural Disasters: The Economics of Effective Prevention* (2010).

ANNEX 1: LIST OF KEY INFORMANTS*

Name	Category	Organisation and Contacts
Charter-Rolle Sandra	NGO/CSO	Dominica Red Cross
D'Auvergne Crispin	IGO	Organization for Eastern Caribbean States (OECS) Commission
Edward-Charlemagne Josette	IGO	The Organization for Eastern Caribbean States (OECS) Commission
Greenidge Nicole	IGO	Caribbean Disaster and Emergency Management Agency (CDEMA)
Grosvenor Andria	IGO	Caribbean Disaster and Emergency Management Agency (CDEMA)
Sealy Hugh	Academic/ Researcher	University of West Indies
Wilkinson Emily	Academic/ Researcher	Overseas Development Institute – ODI and CREAD

* The author wishes to personally thanks all the people that contributed to it as key informants sharing valuable findings and observations.

ENDNOTES

1 UNGA Res. 70/1 (2015), *Transforming our world: the 2030 Agenda for Sustainable Development*, Preamble.

2 *Ibid*.

3 Together with the classic definition of 'sustainable development' provided in 1987 by the Bruntland Commission ("development that meets the needs of the present without compromising the ability of future generations to meet their own needs"), for the purpose of this report, the concept will be considered as corresponding to a 'development that balances economic, social, and environmental considerations into all aspects of decision-making'. See Rachel Emas, *The Concept of Sustainable Development: Definition and Defining Principles*, Brief for GSDR 2015 (2015).

4 SIDS were recognised as a distinct group of developing countries from different geographical regions facing specific social, economic and environmental vulnerabilities at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992. SIDS' unique and particular vulnerabilities were then highlighted in the outcome document "The Future We Want", adopted at the United Nations Conference on Sustainable Development (also known as Rio+20).

5 Government of Fiji, *Post-Disaster Needs Assessment - Tropical Cyclone Winston* (February 20, 2016) 15.

6 See OECD, *Assessing the Real Cost of Disasters. The Need for Better Evidence*, OECD Reviews of Risk Management Policies (2018) 55.

7 UNDP, *What Does It Mean to Leave No One Behind? A UNDP discussion paper and framework for implementation* (July 2018) 17.

8 *Ibid*.

9 Stephane Hallegatte et al., *Shock Waves Managing the Impacts of Climate Change on Poverty*, World Bank Group (2016) for whom "[c]limate related shocks also affect those who are not poor but remain vulnerable and can drag them into poverty - for example, when a flood destroys a microenterprise, a drought decimates a herd, or contaminated water makes a child sick" (at 1).

10 See Roz Price, *Cost-effectiveness of disaster risk reduction and adaptation to climate change*, Institute of Development Studies (2018), noting however that "[t]he wide range of methods and approaches (including assumptions, discount rates and sensitivity analysis) now in use suggests that economic analysis of DRR and CCA is highly context specific and makes direct comparability between studies challenging" (at 3).

11 See Matthew Savage, *Evidence paper on VFM of investments in climate resilient development*, Oxford Consulting Partners for Evidence on Demand (2015) ii; See also OECD, Climate Change Risks and Adaptation, Linking Policy and Economics (2015).

12 UNDP (n 5) 13.

13 See Tommaso Natoli, *Compendium on the Post-2015 Global Agenda on Climate-Risk Governance*, UCC Centre for Criminal Justice & Human Rights (2020). For a critical appraisal of how the three global frameworks connect one another see Ilan Kelman, *Linking disaster risk reduction, climate change, and the sustainable development goals* (2017) 26/3 Disaster Prevention and Management, 254-258.

14 World Bank, Natural Hazards, UnNatural Disasters : The Economics of Effective Prevention (2010).

15 See footnote n. 4.

16 Dominica Climate Resilience and Recovery Plan 2020-2030 (2020) 3.

17 World Bank Group, Climate Change Knowledge Portal, Dominica (2021), https://climateknowledgeportal.worldbank.org/country/dominica/climate-data-projections.

18 Dominica Office for Disaster Management (ODM), *Disaster Risk Reduction Country Profile* (2014) 8.

19 David Eckstein et al., Global Climate Risk Index 2020 - *Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events in 2018 and 1999 to 2018*, Germanwatch Briefing Paper (2019) 9, 14, 40.

20 Jenni Barclay et al., *Historical Trajectories of Disaster Risk in Dominica*, in 'International Journal of Disaster Risk Science' (10/2019) 149-165, highlighting that "land tenure patterns have created spatial marginalization of the poorer sections of society to hazardous locations, and how badly situated critical infrastructure has resulted in high levels of exposure" (at 159).

21 Charlotte Benson et al., *Dominica: Natural disasters and economic development in a small island state*, ODI - Working Paper Series No. 2, World Bank (2001).

22 ACAPS, *Dominica: the Impact of Hurricane Maria* - Disaster Profile (January 2018) 1.

23 *Ibid*.

24 For a detailed assessment of how the event impacted on different sectors (productive sectors, infrastructure, social

sectors as well as cross-cutting themes) see Government of the Commonwealth of Dominica, *PDNA Post-Disaster Needs Assessment Hurricane Maria September 18*, 2017 (2017) xiv and ff.

25 *Ibid*., xiii.

26 NRDS 113, The poverty rate is estimated at 28.8 percent, whereas the vulnerability rate (share of population with an income below the vulnerability line, but above the poverty line) is estimated at a further 11.5%.

27 CRRP (2020) 8. This is significantly higher than the average projected cost in the Caribbean (10.3%).

28 CRRP (2020) 21, 25.

29 See http://finance.gov.dm/.

30 See http://agriculture.gov.dm/.

31 Dominican Constitution (1978-1984) art. 17.3 (a).

32 Commonwealth of Dominica, Emergency Powers (Disaster) Act, Chapter 15:03, Act 20 of 1987.

33 Other initiatives by the Government aimed to create a sustainable environment where renewable energy resources are effectively utilized, including the granting of concessions on the importation of solar related equipment and accessories, a solar street lighting project and most importantly the geothermal project. Moreover, the Government in partnership with the World Bank embarked on a pilot project to reduce the impacts of climate change on Dominica and build resilience to adapt to such impacts. This project termed the "Disaster Vulnerability Reduction Project"- DVRP makes linkages to Dominica's National Climate Change Adaptation Policy, as well as Dominica's Low Carbon Climate Resilient Development Strategy.

34 NRDS (2018) p. 7-8: "The climate resilience vision is a developmental paradigm which seeks to climate proof (to be resilient against the destructive impacts of extreme weather events) the key pillars of national policy which are economic diversification, sustained sustainable and inclusive growth, employment creation and revenue generation, social development, social protection and poverty reduction, environmental management, and cultural preservation".

35 NRDS, vii.

36 According to the NRDS, resilience for Dominica can be summed up as comprising of seven multiple development objectives: 1. The promotion of food security and self-sufficiency through climate resilient agriculture and fisheries development; 2. Enhancing the resilience of ecosystems and sustainable use of natural resources (forestry, marine, water resources); 3. Enhancing infrastructure resilience; 4. The promotion of sustainable human settlements/communities; 5. The provision of adequate and sustainable social protection systems with the ability to respond rapidly to the impact of shocks at the individual and household levels; 6. Implementing a Comprehensive Risk Management Framework (including National Vulnerability Risk Resilience Fund) and pursuing the Low Carbon Development Pathway (the greening of the economy); 7. Economic empowerment and innovations through sustainable climate financing, (at 8).

37 NDRS (2018) 4.

38 *Ibid*.

39 *Ibid*.

40 *Ibid*., 5 and ff.

41 *Ibid*., 34-37.

42 *Ibid*., 135-144.

43 *Ibid*., 134. See also actions n. 27, 30 and 38 in the Monitoring Matrix, foreseeing as their outcomes that a modern legislature framework is achieved and resilient institutions established.

44 See Commonwealth of Dominica, Act n. 16 (2018), *An Act to Provide for the Establishment of the Climate Resilience Execution Agency for Dominica (CREAD) and to Provide for Matters Related Thereto (or Climate Resilient Act)*, 18th December 2018, Art. 3 (Objectives).

45 *Ibid*., 3rd preambular paragraph.

46 *Ibid*., Art. 3(b).

47 Prime Minister Hon. Roosevelt Skerrit, address at the CARICOM-UNDP Conference in New York on 21st November, 2017

48 Climate Resilience Act (2018) Arts. 4 and 5.

49 *Ibid*., Art. 5 (c).

50 *Ibid*., Art. 5 (e) iii.

51 NDRS (2018) 27.

52 Climate Resilience Act (2018), Arts. 10.1 and 10.2.

53 Prime Minister (n 47) 2017.

54 Climate Resilience Act (2018), Art. 11.2.

55 *Ibid*., Art. 9 (p).

56 *Ibid*., Art. 21.

57 *Ibid*., Art. 13.5 and 13.6. The CREAD Parliamentary Oversight Committee shall comprise the Attorney General as Chairperson and 2 government and 2 opposition members of the House of Assembly.

58 *Ibid*., Art. 2.

59 *Ibid*., Art. 11.

60 *Ibid*., also according to which "(4) CREAD shall provide publicly accessible web-based and other monitoring of the progress of projects".

61 *Ibid*., Art. 5 (e) i.

62 *Ibid*., Art. 9 (d).

63 Notably, "A wide cross-section of stakeholders was consulted in the process of developing and finalizing the CRRP (see Annex 1)".

64 More details on the content of the three Pillars can be found at 22-23 of the CRRP.

65 CRRP (2020) 108-114.

66 *Ibid*., 48. The Ministry of Blue and Green Economy, Agriculture and National Food Security as key 'dynamic' actor in this context.

67 Action 7, to be delivered by 2030.

68 Action 8, Delivered by June 2020.

69 However, these links are not further detailed throughout the text, when specific projects and activities are described, and a certain 'lightness' can be noted in regard to commitments under the Paris Agreement concerning national contributions and reporting duties.

70 CRRP (2020) 61.

71 CRRP (2020) 67.

72 *Ibid*. Also "A funding & prioritization strategy for each sector must also be developed as part of the RDPP to ensure legislation & institutional arrangements address all aspects of implementation to mitigate impediments to implementation".

73 See International Monetary Fund (IMF) Policy Paper, *Building Resilience in Developing Countries Vulnerable to Large Natural Disasters* (June 2019), according to which "In Dominica, about half of the public investment since Hurricane Maria in 2017 has been allocated for disaster-resilient projects, in line with the government's goal to make Dominica the first disaster-resilient state" (at 13).

74 CRRP (2020) 67.

75 NRDS (2018) 134.

76 Climate Resilience Act (2018) art. 3 (a).

77 Climate Resilience Act (2018) arts. 9 (o) and 19.2 (a).

78 CRRP (2020) iv, 43, 57-58 and 105.

79 Climate Resilience Act (2018) part IV, art. 16.

80 NRDS (2018) 11.

81 NRDS (2018) 20-21, in which the government also acknowledges "the supportive role of the UN System through the Multi-Country Sustainable Development Framework (MSDF) that has been agreed between Caribbean governments and UN partners in achieving (a) an inclusive, equitable and prosperous Caribbean; (b) a safe, cohesive and just Caribbean; (c) a healthy and stable Caribbean; and most importantly (d) a sustainable and resilient Caribbean".

82 The Caribbean Community (CARICOM or CC) is an organisation of fifteen states and dependencies throughout the Caribbean having primary objectives to promote economic integration and cooperation among its members, to ensure that the benefits of integration are equitably shared, and to coordinate foreign policy

83 This reflects the conceptual approach synthesized by the so-called "hourglass model", considering vertical 'alignment' dynamics between the international, regional and national level and recognising that "regional structures and initiatives may act as a central fulcrum to facilitate the two-way flow of knowledge, experience and norms between the national to the international levels". See Dug Cubie and Tommaso Natoli, *Coherence, Alignment and Integration: Understanding the Legal Relationship between Sustainable Development, Climate Change Adaptation and Disaster Risk Reduction*, in Stephen Flood, Martin Le Tissier, Yaren Jerez Columbié & Barry O'Dwyer, 'Creating Resilient Futures: Integrating Disaster Risk Reduction, Sustainable Development Goals and Climate Change Adaptation Agendas', Palgrave McMillan, 2021 (forthcoming).

84 *Building a Caribbean Pathway for Disaster Resilience in the Caribbean Community (CARICOM)*, prepared by CDEMA and CARICOM partners for the Caribbean Community (2018). The Caribbean Disaster Emergency Management Agency (CDEMA) is an inter-regional supportive network of independent emergency units throughout the Caribbean region. Formed on September 1, 2005 as the Caribbean Disaster Emergency Response Agency (CDERA) it underwent a name change to CDEMA in September 2009.

85 CDEMA and CARICOM (2018) 4.

86 *Ibid*.

87 CDM Strategy and Results Framework for 2014 – 2024, whose regional goal is to realise "Safer, more resilient and sustainable CDEMA Participating States through Comprehensive Disaster Management". According to the

document, the CDM 'provides synergistic opportunities offered by the global agreements negotiated over 2015-2016, specifically the Sendai Framework for Disaster Risk Reduction, the Paris Agreement on Climate Change and the 2030 Development Agenda and accompanying Sustainable Development Goals (SDGs)' (at 3).

88 Draft Comprehensive Disaster Management Bill (version 2019) on file with the author, art. 3 (a) i.

89 CRRP (2020) ii and 82. Among the 20 Climate Resilience Targets by 2030, identified by the CRRP, one can find that to '50% increase healthy coral reef coverage to support increased fish stocks, and protect coastlines and the eco-tourism industry" and to "increase of protected forest areas to 67% of Dominica's land mass'.

90 NDRS (2018) 8.

91 See for instance the "Roots" National Tree Planting Initiative envisaged by the CRRP, for which 1 million trees should have been planted by December 2020 (at 83).

92 NDRS (2018) 86-88.

93 See the "Mangrove Stabilization" activity envisaged by the CRRP at 85.

94 Draft Comprehensive Disaster Management Bill (version 2019) on file with the author, art. 10.1 (t).

95 *Ibid*., art. 12.1 (e)i.

96 CRRP (2020) 16. See also Emily Wilkinson et al., *Building back better - A resilient Caribbean after the 2017 hurricanes*, ODI Briefing note (January 2018), highlighting the need to create "[...] transparent, accountable and participatory processes" and "involve the widest possible array of relevant stakeholders – especially affected people – in decision-making, in order to build consensus on key issues" (at 5).

97 For a working definition of Vulnerable Groups see IFRC, 'Addressing specific vulnerabilities through integrated climate and disaster risk governance: Lessons from the Philippines 2020', authored by Tommaso Natoli (2020) 20-21.

98 NDRS (2018) 117.

99 Climate Resilience Act (2018) Preamble.

100 CRRP (2020) 76-77.

101 Draft Comprehensive Disaster Management Bill (version 2019) on file with the author, art. 10 (j) iii.

102 NDRS (2018) 92.

103 CRRP (2020) 41-42.

104 Intended Nationally Determined Contribution (INDC) of The Commonwealth of Dominica, Communicated to the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC) on the 30th September, 2015 (2015) 4.

105 See International Monetary Fund Policy Paper, *Building Resilience in Developing Countries Vulnerable to Large Natural Disasters* (June 2019) 7 and 15.

106 CRRP (2020) 89.