

Trade-Related Climate Priorities for CARICOM at the World Trade Organization

POLICY PAPER

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Preface

Regional Perspectives on Trade, Climate Change, and Sustainable Development

Tackling climate change and accelerating the urgently-needed shift to a low-carbon economy will require a substantial reshaping of global production and consumption patterns. At the same time, countries around the world are struggling to adapt their economies and recover from the impacts of the climate crisis.

Trade and trade policies have an important role to play in climate change mitigation and adaptation efforts, facilitating a fair, inclusive, and sustainable transition to a low-carbon economy and fostering climate-resilient development pathways. Although trade and trade policies can exacerbate the climate impact of unsustainable production and consumption patterns, they can also play a vital role in offsetting climate-induced production shortfalls in parts of the world affected by climate change and scaling up the diffusion, development, and uptake of technologies vital to climate mitigation and adaptation, while increasing their accessibility.

Already, a growing number of countries are exploring how to integrate climate change considerations into their trade policies, such as through new regulations and carbon standards, tariff and non-tariff measures, as well as a wide range of green industrial policies, including policies related to subsidies, government procurement, local content requirements, technology, and intellectual property. Depending on how climate-related policies and measures are designed, however, they can lead to trade tensions with potentially significant consequences for the multilateral trading system, for the cooperation critical to ramp up climate ambition, and for the sustainable development prospects of countries facing an increasingly complex global regulatory context.

In today's highly integrated global economy, achieving climate goals will not only require effective domestic policies, but also concerted and inclusive international collaboration. This implies overcoming traditional silos of policymaking to bring climate and trade policymakers together, and taking into consideration the reality and needs of third countries, including vulnerable economies that are most impacted by the climate crisis and developing countries which need pathways to thrive in the climate-resilient, low-carbon economy.

At the World Trade Organization (WTO), recognition of the trade-related dimension of climate mitigation and adaptation measures has prompted discussions in a number of bodies, starting with the Committee on Trade and Environment as well as in committees on market access, technical barriers to trade, and agriculture. In 2022, in the Ministerial Outcome document of the Twelfth WTO Ministerial Conference, WTO members recognized the importance of global environmental challenges including climate change and natural disasters, noting the importance of the contribution of the multilateral trading system to promote the UN 2030 Agenda and its Sustainable Development Goals in its economic, social, and environmental dimensions. Interest in the climate and trade nexus has also given rise to two climate-related member-led initiatives, namely the Trade and Environmental Sustainability Structured Discussions, co-sponsored by over 70 WTO members, and an initiative on fossil fuel subsidy reform involving nearly 50 members.

While many discussions are now taking place on trade and climate change at the WTO and in a range of other international settings, most are dominated by concerns, policies, and proposals from more advanced economies. By contrast, developing country priorities and perspectives on the nexus of trade, climate, and sustainable development receive relatively little attention.

In an effort to spur a more inclusive dialogue on trade and climate nationally, regionally, and internationally that addresses developing country priorities, TESS has commissioned a series of policy papers with partners highlighting regional perspectives on international cooperation on the nexus of trade, climate, and sustainable development. In a first phase, the series includes papers from experts and institutions in Africa, the Caribbean, South America, South Asia, Southeast Asia, and the broader category of least developed countries.

Each regional paper explores how international cooperation on trade and trade-related policies can support the climate change mitigation and adaptation efforts and priorities of developing countries and foster pathways to climate-resilient sustainable development. To achieve this, the analysis takes a bottom-up approach, starting from priorities reflected in commitments under existing nationally determined contributions, technology needs assessments, or national adaptation plans, and then reviews how cooperation on trade and trade policies can advance those domestic priorities. The papers also reflect on how the growing array of trade-related climate actions by governments, businesses, and consumers around the world is impacting the international policy and market landscape and the implications for the trade, climate, and sustainable development goals and policies of developing countries. Finally, each paper in the series puts forward particular areas of interest, options, and recommendations for international cooperation that could be taken up at the regional and multilateral level.

In each case, the starting point for the analysis is the urgency of climate action to achieve the goals of the Paris Agreement, recognizing the principle of common but differentiated responsibilities, as well as the importance of nationally determined contributions. The analysis does not purport to be exhaustive but rather should be seen as an effort to identify broad priority areas for attention and further investigation. To facilitate feedback on the draft papers and dialogue on priorities and opportunities for action, consultations of stakeholders from each region were convened, involving government officials, trade negotiators, and also regional organizations, academia, and civil society.

Notably, the regional approach to this series was chosen as one way to spur a conversation grounded in the circumstances and priorities of developing countries. This regional approach is not, however, meant to imply that countries in the same geographical region necessarily have similar priorities, nor does it mean to imply that the regional context is the priority setting for tackling climate mitigation and adaptation, though it may be a key strategy for some countries. Taken as a group, the papers highlight the diversity of trade and climate priorities among and within regions while also underlining similarities.

We hope these papers will help support inclusive discussions on trade, climate, and sustainable at the WTO and in other international settings that reflect the priorities and concerns of developing countries on the role of trade and trade policies in supporting climate mitigation and adaptation and climate-resilient sustainable development.

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Executive Summary

The Caribbean Community (CARICOM) is a grouping of 15 member countries that encircle the Caribbean Sea, and geographically span The Bahamas in the north, and Guyana and Suriname on the South American continent to the south. Being among the most vulnerable regions in the world to the impacts of rising global temperatures, the small island developing states (SIDS) of CARICOM stand to face severe environmental, economic, and infrastructural losses in the coming years. On the trade front, the region still accounts for a very small share of global trade, has registered overall declines in terms of global competitiveness and participation in global value chains, and is a relatively small player in negotiating and dispute settlement fora at the World Trade Organization (WTO).

The prospect of a new “sustainability agenda” at the WTO presents new opportunities for members of CARICOM and can help the region to reform its profile, assume leadership, and reframe the terms of the debate at the WTO. This paper proposes key elements for a trade-related climate change agenda for CARICOM countries at the WTO and will hopefully serve as a discussion piece to guide further research, analytical work, and advocacy that might be required to advance that agenda.

The paper begins by setting out the climate-related particularities and priorities of CARICOM countries as gleaned from recent reports of the United Nations Intergovernmental Panel on Climate Change, as well as from their stances in ongoing climate-change negotiations. In its Sixth Assessment Report, Working Group II of the Intergovernmental Panel on Climate Change (IPCC WGII Report, 2022) considered the global impacts, adaptation, and vulnerabilities resulting from climate change. In an entire chapter dedicated to SIDS in the Caribbean, Indian, and Pacific Oceans (Chapter 15), the report presents the specific environmental and institutional threats to the region in stark terms, underscoring not only the challenges facing small states in responding to the existential threats to geographic, environmental, and biological ecosystems, but also the human capacity constraints specific to small islands in terms of adaptation, loss and damage, finance, and institutional responses. Key insights also highlight the acute data and information gaps and existing models that do not cater to the peculiarities of smaller states, which limits the ability of the international community to properly track and respond to the needs of CARICOM states.

As a region, the CARICOM countries, combined, account for less than 1% (0.33%) of all greenhouse gas (GHG) emissions, second only to the Pacific which emits 0.03%. The main GHG emitting sectors are energy, land-use change and forestry, and electricity/heat, with increased emissions in more recent years from sectors like transportation, agriculture, and waste. Despite CARICOM's minuscule contribution to global GHG emissions, the region's most tradeable sectors are bearing the full brunt of the climate crisis. This is not surprising given that, as noted in the IPCC WGII Report, 2022 “the lack of diversity that characterizes most small island economies means they are especially vulnerable to global (climate-driven) shocks [...]. As a result, the risk from climate change to economies constitutes a key risk [...] in small islands.” These natural risks are compounded by the chronic debt of the region, recent COVID-19 disruptions, and inflation from the Ukraine war, all of which have reduced incomes that could have otherwise been used to enhance climate resilience. Beyond the immediate impacts of natural disasters, the region's main trade-related sectors stand to be hugely impacted by climate change over the near- to long-term, namely tourism, agriculture, and the blue economy.

In terms of their climate negotiations profile, all CARICOM Member States are parties to the United Nations Framework Convention on Climate Change (UNFCCC) and, as members of the Alliance of Small Island States (AOSIS), are vocal participants in the related ongoing climate change negotiations. CARICOM's posture in climate change negotiations is reflected inter alia in: (i) its commitment to reduce its fossil fuel dependence and transition to zero carbon economies; (ii) its demands for financial assistance by developed countries to support its mitigation, adaptation, and loss and damage priorities; and (iii) its request for technology transfer to assist with its transition to low-carbon economies. CARICOM thought leaders have also been very creative in putting forward ideas for financing the green agenda, including through reform of the existing international financial architecture, as well as through creative financial instruments for financing by the private sector.

The second section of the paper reflects the trade-related climate priorities of CARICOM in regional, bilateral, and multilateral trade negotiations, with a focus on how these priorities might be best articulated in the context of ongoing WTO negotiations and processes.

Although most documents and reports dealing with climate policy in the region make reference to the impact of climate change on CARICOM economies, including on their tradable and trade-related sectors, the region lacks a clear articulation of how its trade policy can be used in the service of the sustainable development goals generally, and climate and green resilience specifically. Rather, the approach of the region towards climate change in trade negotiations appears to be currently influenced by the priorities of our main trading partners, many of whom will increasingly condition access to their markets on compliance with their respective climate agendas. The most important trade partners for the CARICOM countries region are China, the United States, and the European Union (EU), three actors which contribute the most to GHG emissions, represent important shares of the global economy, and adopt different approaches to climate mitigation. Among these three, the EU has certainly positioned itself as a global leader on environment. With the adoption of the European Green Deal, climate policy is now firmly embedded in the EU's new growth as well as its trade strategy, and the region has already been alerted to the impact of some of the EU's unilaterally determine climate-related policies, including those under the Carbon Border Adjustment Mechanism (CBAM). Some suggestions have been advanced for improving the alignment of the EU's trade-related climate priorities with CARICOM's own including through the strengthening of relations in the area of technology transfer and developing innovation towards a green transition; building on its expertise, experience, and technologies related to environmental goals; focusing on the financing available under the EUROCLIMA+ programmes to promote dialogue; and greater use, and possibly renegotiation of the CARIFORUM-EU Economic Partnership Agreement (CEPA) as a political forum to generate greater dialogue to avoid the negative impacts arising from the unilateral imposition of the CBAM and other such standards.

At the multilateral level, CARICOM member states have participated only to a limited extent in formal negotiations on climate change, focusing most on interventions in the area of natural disasters. For instance, to date, only one CARICOM country has signed onto the Trade and Environmental Sustainability Structured Discussions (TESSD); and none has yet supported the Joint Statement on Fossil Fuel Subsidies. By contrast, at least three CARICOM members—Barbados, Jamaica, and Suriname— have signed onto the Dialogue on Plastics Pollution, with Barbados being one of the co-convenors of that initiative.

How might CARICOM countries better take advantage of ongoing and emerging negotiating fora at the multilateral level?

One starting point are the nationally determined contributions (NDCs) submitted by them under the Paris Agreement. NDCs can serve as a fertile basis for discerning priorities of countries which lack a well-articulated or advanced trade and climate strategy. For one, NDCs typically emerge from a very extensive internal process involving a number of national stakeholders and are likely to reflect the government's national strategy and benefit from domestic buy-in. Second, and at the broader institutional level, using NDCs to mine for trade negotiating priorities can help in aligning the goals of two core institutions—the UNFCCC and the WTO—on the frontlines of multilateral action on climate change. Some regional trade agreements already contain provisions that seek to reinforce the linkage between NDCs and trade obligations and academic work has already started in this area.

CARICOM NDCs prioritize restrictions on the imports of energy-inefficient products and promotion of energy-efficient imports; the use of domestic standards; and the transfer of technologies, all topics that could fall within the remit of the WTO. Moreover, many CARICOM NDCs reflect CARICOM governments' intention to utilize tariff reduction measures to encourage the diffusion of environmental goods like electric vehicles and renewable equipment.

Based on the profile of CARICOM states, and with a view to advancing their interests at the WTO negotiations, we provide below a tentative list of ongoing discussions and/or negotiations in which CARICOM might consider intervening. They include

discussions on trade and technology transfer; aid for trade; fossil fuel subsidies; agriculture and food security; natural disasters; environmental goods and services, and standards. In addition, we have included areas where there might be scope for more offensive participation by CARICOM countries, but for which the WTO negotiations are not yet “ripe” for action. (Even though fisheries is a key sector in the region impacted by climate change, negotiations on fisheries subsidies are excluded from this list because of the already advanced negotiations on the topic in the context of the Agreement on Fisheries Subsidies, concluded at the Twelfth WTO Ministerial Conference negotiations in Geneva in June 2022.)

In the last section of the paper, and drawing on the above discussion, some common themes and recommendations emerge for how the emerging WTO sustainability agenda can be used to promote CARICOM's trade-related climate interests. Some of these include that the WTO membership should recognize the specific needs of small island developing states as it relates to environmental vulnerability; the WTO should undertake more technical work on the trade and climate interface; there should be more effective coordination of the work of the UNFCCC and the WTO as well as across WTO work programmes on climate-related trade work. Finally, the WTO should focus on areas where CARICOM countries have an offensive interest— such as carbon markets, the blue economy, sustainable tourism—and embrace topics such as technology transfer and climate finance that the developed world has been slow to move on. There is a potential role for the WTO to act as a key broker in bringing together relevant stakeholders as it has for the fisheries subsidies negotiations as well as the COVID-19 vaccines.

ABBREVIATIONS

ACP	African, Caribbean and Pacific Group of States
AOSIS	Alliance of Small Island States
CARICOM	Caribbean Community
CARIFORM	Caribbean Forum
CBAM	Carbon Border Adjustment Mechanism
CDB	Caribbean Development Bank
CEPA	CARIFORUM-European Union Economic Partnership Agreement
CRF	Caribbean Resilience Fund
CO ₂	Carbon Dioxide
COP27	2022 United Nations Climate Change Conference
CROSQ	CARICOM Regional Organization for Standards and Quality
CTD	Committee on Trade and Development
ECLAC	United Nations Economic Commission for Latin America and the Caribbean
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
GHG	Greenhouse Gas
IDP	Informal Dialogue on Plastics Pollution and Environmentally Sustainable Plastics Trade
IPCC	Intergovernmental Panel on Climate Change
LDC	Least Developed Country
MC12	Twelfth WTO Ministerial Conference
MEA	Multilateral Environmental Agreement
NDC	Nationally Determined Contribution
OECS	Organization of Eastern Caribbean States
SCM	Subsidies and Countervailing Measures
SIDS	Small Island Developing States
SRC	Shridath Ramphal Centre for International Trade, Policy and Services
SVEs	Small, Vulnerable Economies
TESSD	Trade and Environmental Sustainability Structured Discussions
TNA	Technical Needs Assessment
TRIPS	Trade-Related Aspects of Intellectual Property Rights
UNCTAD	United Nations Conference on Trade and Development
UNFCCC	United Nations Framework Convention on Climate Change
WGTT	Working Group on Transfer of Technology
WTO	World Trade Organization

1. Introduction

The Caribbean region throws up unique challenges for both the climate change and trade communities. Being among the most vulnerable regions in the world to the impacts of rising global temperatures, the small island developing states (SIDS) of the Caribbean Community (CARICOM) stand to face severe environmental, economic, and infrastructural losses in the coming years. On the trade front, the region still accounts for a very small share of global trade, has registered overall declines in terms of global competitiveness and participation in global value chains, and is a relatively small player in negotiating and dispute settlement fora at the World Trade Organization (WTO).

The prospect of a new “sustainability agenda” at the WTO presents new opportunities for members of CARICOM (Remaking the Global Trading System for a Sustainable Future Project, n.d.). Being an existential threat to the global community, and therefore of concern to all countries, climate change has the potential to bind all WTO members in a common endeavour of global economic governance, like no other issue has done before. Moreover, as CARICOM states are among the

least responsible for the increase in global greenhouse gas (GHG) emissions, but bear the brunt of its nefarious impacts, the region has a strong moral, and arguably legal, claim for demanding action and forcing international cooperation. The climate change agenda can therefore help the region to reform its profile, assume leadership, and reframe the terms of the debate at the WTO.

This paper proposes key elements for a trade-related climate change agenda for CARICOM countries at the WTO and will hopefully serve as a discussion piece to guide further research, analytical work, and advocacy that might be required to advance that agenda. The paper is organized as follows: Section 1 sets out the climate-related particularities and priorities of CARICOM countries as gleaned from recent reports of the United Nations Intergovernmental Panel on Climate Change, as well as from their stances in ongoing climate change negotiations; in Section 2, we reflect on the trade-related climate priorities of CARICOM in regional, bilateral, and multilateral trade negotiations, with a focus on how these priorities might be best articulated in the context of ongoing WTO negotiations and processes; and Section 3 concludes by drawing on common themes and making key recommendations on how the emerging WTO sustainability agenda can be used to promote CARICOM's trade-related climate interests.

2. Climate Profile of CARICOM States

The Caribbean Community is a grouping of 15 member countries that encircle the Caribbean Sea, and geographically span The Bahamas in the north, and Guyana and Suriname on the South American continent to the south (CARICOM, n.d.). Owing to their relative geographic isolation, small land masses (they are mostly island states), concentration of their populations and infrastructure in coastal areas, narrow economic base, dependency on natural resources, limited financial, technical and institutional capacity, and chronic debt, CARICOM nations are projected to be among the most impacted in the coming decades by climate change (Simpson et al., 2016).

2.1. The Impact of Climate Change on CARICOM Ecosystems and Human Systems

In its Sixth Assessment Report, Working Group II of the Intergovernmental Panel on Climate Change considered the global impacts, adaptation, and vulnerabilities resulting from climate change (IPCC, 2022). In an entire chapter dedicated to SIDS in the Caribbean, Indian, and Pacific Oceans (Chapter 15) the report presents the specific environmental and institutional threats to the region in stark terms (Mycoo et al., 2022). The main highlights are captured in Table 1.²

1. The 15 members of CARICOM are Antigua and Barbuda, Bahamas, Barbados, Belize, Commonwealth of Dominica, Grenada, Cooperative Republic of Guyana, Haiti, Jamaica, Montserrat, Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Republic of Suriname, and Republic of Trinidad and Tobago.
2. This section has been adapted from the findings of Chapter 15 of the IPCC report (Mycoo et al., 2022).

Table 1. Impacts of Climate Change on the Environment and Human Ecosystems of SIDS

Impact on SIDS	Explanation
Small islands face an existential threat if global warming rises above 1.5°C.	Although the Caribbean was at the forefront of negotiations to stay below 1.5°C global warming, greenhouse gas emissions continue to rise.
Small islands are increasingly impacted by rising temperature, tropical cyclones, storm surges, droughts, changing precipitation patterns, sea-level rise, coral bleaching, and invasive species.	Caribbean islands already face many impacts as seen annually in hurricanes, storm surges, heatwaves, droughts, and floods. Extreme events such as hurricanes are expected to become more intense.
Terrestrial ecosystems within insular biodiversity hotspots, including the Caribbean, are being threatened.	Despite encompassing approximately 2% of the Earth's terrestrial surface, oceanic and other high-endemicity islands are estimated to harbour substantial proportions of existing species. Islands have higher densities of critically endangered species, hosting just under half of all species currently considered to be at risk of extinction hence making the loss of terrestrial biodiversity and related ecosystem services a real threat to small islands. Impacts from developing synergies between changing climate, natural and anthropogenic stressors on islands could lead to disproportionate changes in global biodiversity
Coastal systems have been affected by severe coral bleaching, declines in seagrass, blossoming of Sargassum, and loss of mangroves.	Under future climate scenarios, some small islands will experience severe coral bleaching on an annual basis before 2040. Coral reefs provide beach sand and are fish nurseries. During severe bleaching events, not only do reefs lose a significant amount of live coral cover, but they also experience a decrease in growth potential, and thus reef erosion surpasses reef accretion. Other possible impacts are substantial declines in seagrass communities, and since 2011 for the Caribbean region, unprecedented influxes of the pelagic seaweed Sargassum, which has caused significant damage to coastal habitats, mortality of seagrass beds and associated corals, as well as consequences for fisheries and tourism. Mangroves also face serious risks from deforestation and unsustainable coastal development.
Food and water security for human survival are threatened if drought and salinization of freshwater resources occur.	Freshwater systems on small islands are exposed to dynamic climate impacts and are among the most threatened on the planet. Increasing droughts in the Caribbean can affect human health and crop production. Integrated watershed management and building reservoirs to store freshwater received in the rainy season are fundamental for water security. Improved access to climate information for crop production and new technologies for growing drought-resistant crops and crops adapted to flood conditions are important for farmers.
People, economies and infrastructure in cities, coastal and low-lying areas will suffer.	The high concentration of population, infrastructure and economic assets in Caribbean coastal cities and low-lying settlements is a major concern given sea-level rise and projected increases in coastal flooding and storm surges. The most vulnerable people, e.g. those living in informal settlements, are disproportionately affected. Land use planning, revised building codes, engineering solutions such as coastal defences and green infrastructure need to be more innovative.

Table 1. (Continued)

Impact on SIDS	Explanation
Losses and damages on small islands are exceeding national budgets.	SIDS are already reporting losses and damages particularly from tropical cyclones and increases sea level rises. Despite the loss of human life and economic damage, the methods, and mechanisms to assess climate-induced losses and damages remain largely undeveloped for small islands. Additionally, in the absence of robust methodologies to infer attribution, assessments of losses and damages are limited for small islands.
No single adaptation response is a complete solution to reducing risks to people and nature.	The feasibility of implementing adaptation options in the near term differs across sectors and regions. The Caribbean uses a mix of adaptation responses such as protection, accommodation, advance and retreat ecosystem-based adaptation e.g. mangrove replanting and protection measures e.g. seawalls are also used but can cause damage if poorly designed and built. Responses are more effective if combined, planned, aligned with sociocultural values and development priorities, and underpinned by inclusive community engagement processes. Feasibility studies are needed to determine how effective adaptation measures have been in responding to sea-level rise and flooding. The scale of needed action remains limited and requires more research.
Barriers to adaptation and enabling conditions hinder responses.	A major barrier to adaptation is limited information on the feasibility, outcomes and sustainability of adaptation responses in small islands. Moreover, limited time series data on monitoring and evaluation make evaluating the feasibility of adaptation responses difficult. Adaptation financing for small islands has increased since the IPCC Fifth Assessment Report although leveraging finance is a constraint and remains complex. Adaptation is also impacted by economic contraction and indebtedness. Small islands also present the most urgent need for investment in capacity building and adaptation strategies, but face barriers and constraints which hinder the implementation of adaptation responses. Barriers and constraints arise from governance arrangements, lack of financial resources, and human resource capacity. Institutional and legal systems are often inadequately prepared for managing adaptation strategies such as large-scale settlement relocation and other planned and/or autonomous responses to climate risks. To make progress in adaptation, the Caribbean needs enablers for e.g. better governance; political commitment; legal reforms; improving justice; equity, and gender considerations; building human resource capacity; increased finance and risk transfer mechanisms; education and awareness programmes; increased access to climate information; adequately downscaled climate data and embedding indigenous knowledge and local knowledge adaptation responses. Framing adaptation within climate resilient development pathways that emphasize systems transition and are implemented at scale may bolster small islands' resilience to multiple shocks such as COVID-19.

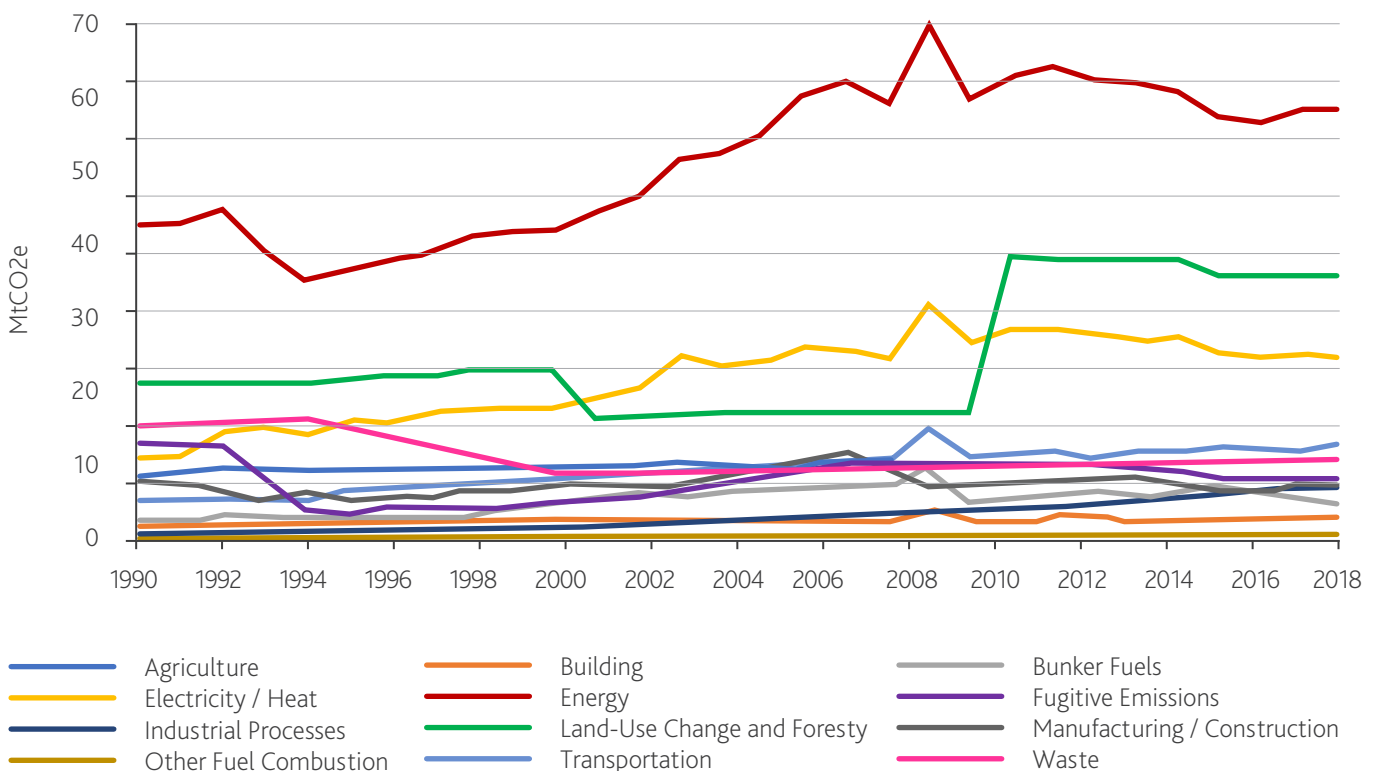
The above findings of the IPCC Working Group II Report, 2022 underscore not only the challenges facing small states in responding to the existential threats to geographic, environmental, and biological ecosystems, but also the human capacity constraints specific to small islands in terms of adaptation, loss and damage, finance, and institutional responses. Key also are the data and information gaps and existing models that do not cater to the peculiarities of smaller states, which limits the ability of the international community to properly track and respond to the needs of CARICOM States.

2.2 The Impact of Climate Change on CARICOM Economic and Trade Prospects

As a region, the CARICOM countries, combined, account for less than 1% (0.33%) of all GHG emissions, second only to the Pacific which emits 0.03% (Simpson et al., 2016). The region's main GHG emitting sectors are energy,

land-use change and forestry, and electricity/heat, with increased emissions in more recent years from sectors like transportation, agriculture, and waste (see Figure 1). Trinidad and Tobago (0.06%), Guyana (0.04%), and Suriname (0.03%) are the largest GHG emitters,³ which is not surprising since they are also the region's main commodities-based economies heavily dependent on the oil and gas and mining sectors (Climate Watch, n.d.). Trinidad and Tobago differs from all of its regional counterparts since the majority of its emissions come from the country's industrial and oil sector. In fact, in 2019 the World Bank reported that per capita, Trinidad and Tobago is the second-highest emitter of GHGs in the world (Trinidad & Tobago Guardian, 2020). Traditionally, in Guyana the power industry and transportation accounted for the vast majority of carbon dioxide (CO₂) emissions (47.3% and 32.4% respectively); however this is likely to change as a result of the mass amounts of oil and gas extraction that is about to begin in the country (Valle, 2022).

Figure 1. Caribbean's Regional GHG Emissions by Sector (1990-2018)



Source: Climate watch (n.d.)

3. See Annex. Data obtained from Climate Watch (n.d.).

Despite CARICOM's minuscule contribution to global GHG emissions, the region's most tradeable sectors are bearing the full brunt of the climate crisis. This is not surprising given that, as noted in the IPCC Working Group II Report, 2022 "the lack of diversity that characterizes most small island economies means they are especially vulnerable to global (climate-driven) shocks. [...] As a result, the risk from climate change to economies constitutes a key risk [...] in small islands" (Mycoo et al., 2022). These natural risks are compounded by the chronic debt of the region, recent COVID-19 disruptions, inflation from the Ukraine war, all of which have reduced incomes that could have otherwise been used to enhance climate resilience.

Natural disasters from climate change presents a clear and present danger to CARICOM economic activity. CARICOM is seven times more likely to be hit by natural disasters than larger states, and twice as likely as other small states (Ötger & Srinivasan, 2018). It is estimated that the disaster damage, as a ratio to GDP, was four and a half times greater for small states than for larger ones, but six times higher for countries in the Caribbean (Ötger & Srinivasan, 2018). Indeed, for some countries, the damage experienced as a result of natural disasters far surpassed the size of the economy. Hurricane Maria for example is estimated to have cost Dominica 225% of its GDP, while the hurricane damage for Grenada in 2004 was 200% of GDP, leaving huge reconstruction needs that can take years to fulfil (Ötger & Srinivasan, 2018). Shocks caused by natural disasters have knock-on effects on tradable sectors for the Caribbean region: they can lead to a sharp deterioration in trade balances as import bills rise for food, raw materials, and reconstruction materials; increase debt due to pressure on current accounts and the fall in tax revenues; and reduce exports. In the services sectors, damages to the electricity and ICT sectors mean that post-disaster communications and electricity supply may be affected and major sectors like tourism come to a complete halt. Evidence from one study suggests small developing countries' exports typically decline by up to 22% in the wake of such impacts, with effects sometimes lasting for many years following a disaster (Adinolfi, 2019).

Beyond the immediate impacts of natural disasters, some of the region's main trade-related sectors stand to be hugely impacted by climate change over the near to long term, namely: tourism, agriculture, and the blue economy.

Tourism

Tourism is CARICOM's dominant industry, accounting for over 60% of GDP and employment and over 80% of total exports in some Caribbean countries (Brathwaite, 2021b). Travel receipts are driving the region's surplus in its trade in services, accounting for the bulk of CARICOM's services exports (Morgan, 2020). The region's tourism model is predicated on its competitive advantage in sandy beaches, upon which the sun-sand-sea tourism model is built. However, climate change is threatening the sustainability of this tourism model. Almost a third of all Caribbean tourism resorts are at flooding risk from the sea-level rise, and several others will have their beach assets (including coral reefs and coastlines) substantially eroded or destroyed. The loss of critical beach assets also has major implications for property values, destination competitiveness, and marketability (Simpson et al., 2011). A 2022 empirical study considering the impact of sea rise on beach tourism estimated an average 53% loss in sandy beaches, resulting in a 30% hotel room loss and a 38% tourism revenue decrease by 2100 under a low CO2 emissions pathway. That study also predicted 59% and 39% reductions in beach and hotel rooms, respectively, and a 47% reduction in direct tourism revenue which is only one aspect of beach erosion costs under a higher emissions path (Spencer et al., 2022). An older study published in 2010 found that under the worst-case scenario, climate change effects could cause tourism arrivals to the region to fall by 1% per year, costing the region around \$118–146 million in lost revenue per year (Moore, 2009).

On the supply-side, increased operating costs, due to higher insurance premiums (particularly for beachfront properties) and greater cooling costs to name a few, could all impact the profitability of hotels on Caribbean islands. As climate change impacts on the water table, there is also likely to be some competition for water resources for residential and tourism purposes (Cashman et al., 2012).

Beyond theoretical estimations, tourism sectors across the region have already been dealt a blow by natural disasters. For example, Hurricane Dorian's tourism-related damages and losses in the Bahamas were around \$530 million and \$325 million respectively in 2019 (IDB, 2019); Dominica's tourism sector suffered \$63 million in damages from Hurricane Maria in 2017 (Pollack, 2017); and in 2004 Hurricane Ivan destroyed

90% of guest rooms in Grenada's tourism industry which was the equivalent of 13% of the island's GDP (OECS, 2004).

Agriculture

The region's agriculture sector currently accounts for between 7% and 17% of GDP and 10% and 25% of jobs (FAO & CDB, 2019). On average, the agriculture sector in developing countries absorbs 25% of the total damage

and losses from climate-related disasters (FAO, 2015).

Caribbean agriculture-based economies are concentrated among one or two main commodity exports that depend on their natural environment, which increases the sector's vulnerability to large-scale loss from climate-induced disasters (ECLAC, 2011). Table 2 highlights some of the climate-induced losses experienced across the region's agriculture sector throughout the years.

Table 2: Snapshot of Economic Losses to Caribbean Agriculture Sectors From Climate-Induced Disasters

Hurricane Ivan (2004)	Grenada's agriculture sector suffered a loss equivalent to 10% of its GDP, along with an estimated 10-year delay in cocoa and nutmeg availability, which are Grenada's dominant export crops (Mimura et al., 2007).
Hurricane Maria (2017)	Dominica's agriculture sector experienced the largest loss as defined by changes in economic flow. Losses were estimated to be around \$179.6 million. An estimated 80–100% of root crops, vegetables, bananas, and plantains and 90% of tree crops were damaged. Livestock losses were estimated at around 45% of cattle, 50% of small ruminants, 65% of pigs, and 90% of chicken stocks (Ministry of Blue & Green Economy, Agriculture & National Food Security, 2019).
Drought (2019)	Belize's agriculture sector estimated around \$25 million (BZD \$50 million) in crop losses from prolonged drought which caused the government to declare a partial state of emergency. About 30% of the island's sugarcane crop was damaged and 2019–20 crop yields were expected to be significantly less, having implications for lower foreign exchange earnings. Corn and soyabean production were also significantly affected with knock on effects for reduced poultry production given the role of soyabean in feed production (The San Pedro Sun, 2019).
Flooding (2021)	Precipitation levels rose to 510 millimetres, overflowing the banks of the Essequibo River in Guyana. Farmers in some areas lost 90% of their crops and animals. Overall, 16,000 hectares of agricultural crops have been lost. The government declared a state of disaster.

One study estimated that under two metres sea-level rise, more than 3% of agricultural land will be lost on average, and even higher projections are estimated for the Bahamas (12%), St. Kitts and Nevis (8%), and Haiti (5%) (Simpson et al., 2010). Another study predicted that the biological effects of 2050 climate on Caribbean agriculture compared to 2000 climate would reduce yields by as much

as 3–8% for commodities like rice, maize, and cowpea (Simpson et al., 2009). Water shortages are also impacting agricultural production: for instance, in Barbados, where groundwater is relied upon for food production, urban use and environmental needs, higher food prices are expected in the future if informed land use management and integrated water resources policies are not implemented to manage

groundwater in the short term, even with modest climate change threats (Mycoo et al., 2022). The impact of climate change on changes to land and water use, and agricultural production patterns will also compound the region's already critical food security problem (Mycoo et al., 2022).

Research indicates that temperature and rainfall changes in the Caribbean region could lead to a general reduction in food production and the displacement of the livelihoods of smallholder farmers (Rhiney et al., 2018). The Food and Agriculture Organization (FAO) estimates that if current income and consumption growth trends continue unabated, agricultural production will have to grow by 60% to satisfy the expected increased demands for food and feed (FAO, 2009). CARICOM is a net food importer with a food import bill above \$5 billion (Brathwaite, 2021a). In fact, as a result of the Covid-19 pandemic, the CARICOM nations are already in the throes of a food crisis, with the World Food Programme estimating that 2.9 million people in the Caribbean were food insecure in July 2020, compared to 1.2 million in April of the same year (Rozenberg, 2021). The inordinate level of external dependence increases the region's vulnerability to food shortages and price hikes during times of crisis and global disruptions a situation that will only worsen with increasing global temperatures and food production instability (Braithwaite, 2021a). Loss and damages in agriculture are also expected to increase dependence on imported processed foods, which will lead to low diet diversity (Mycoo et al., 2022).

The Blue Economy

Caribbean SIDS are increasingly being called big ocean economies to draw reference to the vast oceanic resources which surround them. However, climate-induced disasters like weather systems (hurricanes/storms), increased oceanic temperatures, and acidification threaten the region's oceanic biodiversity. 90% of reefs in the Caribbean are expected to be at risk by the year 2030 and up to 100% with around

85% at high, very high, or critical levels by 2050 (ECLAC, 2011). One-third of sea turtle nesting beaches across the region are likely to be lost under 0.5 metres sea-level rise. The region's fisheries sector, which employs around 200,000 fishers and 100,000 people in fish processing, marketing, and other supporting roles, and accounts for around \$1.2 billion in annual export earnings, will also be negatively impacted as fish migrate to cooler waters and the biological ecosystem changes (ECLAC, 2011). Beach erosion and the relocation of housing and fishery landing will only worsen with the change in physiology, behaviour, growth, distribution, reproductive capacity, and fish mortality caused by climate change. Some impacts are already being felt, for example, flying fish landings in Barbados have dropped by almost 50% and most explanations point to climate change driving the fish to cooler waters (Dundas et al. 2019). In 2005 there was a coral bleaching event brought on by high sea surface temperatures in the Eastern Caribbean (Taylor et al., 2012), and in 2017 Hurricane Maria destroyed 370 vessels and several pieces of fishing gear (Ministry of Blue & Green Economy, Agriculture & National Food Security, 2019). There are also implications for sea-level rises to impact human settlements since these tend to be highly concentrated in the coastal zone, especially in Antigua and Barbuda, Barbados, and Guyana (ECLAC, 2011).

There are also impacts on CARICOM's food security. According to the IPCC report, widespread loss or damage to marine habitats such as coral reefs but also mangroves and seagrass beds and consequently of important fish species that depend on these habitats and are crucial both to the food security (a high proportion of dietary protein is derived from seafood) and incomes of island communities. Shifting ocean currents and warming waters are also changing the distribution of pelagic fish stocks, especially of open-water tuna, with further consequences for both local food security and national economies. Food shortages are often apparent in small islands, following the passage of catastrophic tropical storms.

2.3 CARICOM Priorities in Ongoing Climate Change Negotiations

All CARICOM member states are parties to the United Nations Framework Convention on Climate Change (UNFCCC) and, as members of the Alliance of Small Island States (AOSIS)⁴, are vocal participants in the related ongoing climate change negotiations.

The region has distinguished itself in the international climate change community, not only because of its natural vulnerability to the impacts of climate change as SIDS, but also because of its global championing and advocacy, personified by leaders like Prime Minister Mia Amor Mottley of Barbados⁵ and Simon Stiell of Grenada who was recently appointed as Executive Secretary of the UNFCCC (UN, n.d.). CARICOM's posture in climate change negotiations is reflected inter alia in (i) its commitment to reduce its fossil fuel dependence and transition to zero carbon economies; (ii) its demands for financial assistance by developed countries to support its mitigation, adaptation and loss and damage priorities; and (iii) its request for technology transfer to assist with its transition to low-carbon economies (Remy et al., 2021). Many of these priorities are also reflected in the Nationally Determined Contributions (NDCs) submitted pursuant to obligations under the Paris Convention (See Annex)

High Ambitions to Curb Dependence on Imported Fossil Fuels as the Main Source of Energy

Although the region depends heavily on imported fossil fuels, CARICOM energy policy places a premium on the shift to renewable energy, with some countries producing ambitious targets; like Jamaica with a target of 20% renewables by 2030 and Barbados with a target of 75% renewables by 2037. Some CARICOM states have taken the additional step of declaring that they will achieve net-zero emissions by 2030. In their updated NDCs of 2021, Barbados, Antigua and Barbuda, and Belize have stated that they

intend to be net-zero by 2030, 2040, and 2050 respectively (Caribbean Community Climate Change Centre, 2020).

Despite the abundance of solar, wind, geothermal energy, and hydropower, however, investments in the development of these technologies remains worryingly low (CARICOM, 2020).

The Region Will Require Substantial Financing From Donors and IFIs to Transition to the Low-Carbon Economies They Have Pledged to in Their NDCs

Much of the emphasis in ongoing negotiations, as well as in their NDCs, has been on demands for providing financing for climate-related mitigation, adaptation, and loss and damage. High debt levels of CARICOM countries—the highest levels among the SIDS regions (others being Pacific and Africa-Indian Ocean regions)—stymie their ability to finance their resilience and recovery projects. There is also concern that the current international financial infrastructure makes it inordinately difficult to borrow at affordable rates.

CARICOM countries have therefore been among the most vocal proponents of greater emphasis in negotiations on adaptation and loss and damages; more climate finance to be made in the form of grants over loans; and holding developed countries to their promise of the \$100 billion fund. In their preparatory meetings for the 2022 United Nations Climate Change Conference (COP27), the region's ministers also underscored their support for the creation of a Loss and Damage Fund, a proposal which was ultimately agreed in Sharm El-Sheik at the COP27 negotiations (UNFCCC, 2022).

CARICOM thought leaders have also been very creative in putting forward ideas for financing the green agenda, including through reform of the existing international financial architecture, as well as through creative financial instruments for financing by the private sector. Some of these are presented in Box 1.

4. AOSIS is an intergovernmental organization of low-lying coastal and small island countries established in 1990, with a main purpose of consolidating the voices of SIDS to address global warming (AOSIS, n.d.)

5. In 2021, Prime Minister Mottley was awarded a UNEP Champion of the Earth, and in 2022 she was chosen by TIME Magazine as among the 100 Most Influential People in the category of Leader.

Box. 1 Creative Climate Finance Solutions Emerging from the CARICOM Region

The Bridgetown Initiative comprises five specific proposals emerging from discussions hosted by Prime Minister Mottley of Barbados in Bridgetown Barbados over the summer of 2022. Designed to “redraw the global financial architecture” for climate finance, the proposals seek to reallocate international public and private finance so that adaptation and mitigation priorities of developing countries are met. Specifically, they entail: #1) Drawing of \$5 trillion of private savings for climate mitigation; #2) Widening access to concessional finance for the climate-vulnerable; #3) Expanding lending by multilateral development banks for climate and SDGs by \$1trillion; #4: Funding Loss and Damage; and #5) Making the financial system more shock absorbent. See also Shridath Ramphal Centre for International Trade, Policy and Services (SRC) (2022).

Debt for Nature Swaps: In 2021, for the first time in the world, the Government of Belize and the Nature Conservancy announced the completion of a \$364 million debt conversion for marine conservation that reduced Belize’s debt by 12% of GDP, created long-term sustainable financing for conservation, and locked in a commitment to protect 30% of Belize’s ocean, in addition to a range of other conservation measures. The transaction has been touted as the world’s largest debt refinancing for ocean conservation to date.

A Climate Vulnerability Index: In international financial institutions, GDP per capita, or GNI, is often used as the basis for determining which countries receive access to concessional or favourable funding instruments, but this metric has long been decried by small middle-income countries as inadequate for conveying the full extent of their susceptibility. Instead, many small states have given credence to the concept of a “vulnerability index”—which would consider economic, climatic, and governance susceptibilities—as a basis for determining eligibility for concessional finance. The Caribbean Development Bank (CDB) has updated and revised its own index through publication of a Multidimensional Vulnerability Index (MVI) (Ram et al, 2019), and has been working recently to refine and expand the metrics by incorporating a Duration Recovery Adjuster that would measure a country’s recovery phase from a disaster. Using the CDB’s MVI, the SRC has proposed a trade vulnerability index that could measure a country’s relative vulnerability to determine its eligibility for special and differential treatment at the WTO (Cotton et al., 2020)

A Caribbean Resilience Fund: In July 2022, the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) convened a high-level meeting to discuss the funding of a Caribbean Resilience Fund (CRF), a special purpose financing vehicle intended to leverage long-term low-cost development financing for Caribbean countries facing a high debt-low growth dilemma. The CRF would also ensure the availability of resources to the Caribbean for investment in adaptation and mitigation initiatives, in the development of green industries, thereby promoting both resilience building and the structural transformation of Caribbean economies. Given the constraints that multilateral facilities, such as the Green Climate Fund, have with financing debt restructuring, it is proposed that the CRF be comprised of distinct financing windows for supporting growth and competitiveness; resilience building; and debt restructuring or reprofiling, respectively. In so doing, the CRF would explicitly target remedying the leading existential challenges facing the Caribbean through three broad thematic windows focusing on: (i) resilience building; (ii) growth and competitiveness; and (iii) liquidity and debt (unsustainability).

Transfer of Technologies, and Associated Specialized Skills Training are Sorely Needed to Adapt to the New Resilient Economy

The ongoing international negotiations on climate change acknowledge the crucial role technologies have to play in mitigation and adaptation efforts in developing countries. Article 4.5 of the UNFCCC requires developed countries to “take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to environmentally sound technologies and know-how to other Parties, particularly developing country parties to enable them to implement the provisions of the Convention.” Article

10 of the Paris Convention further commits countries to strengthen cooperation on technology transfer and, inter alia, develop a mechanism for implementing this obligation⁶ and to provide support, including financial support, to developing countries and achieve overall balance between support for mitigation and adaptation.

CARICOM has also called for increased action to develop capacity, and access fit for purpose, state of the art technology to improve and accelerate responses to climate change, and to strengthen monitoring and reporting. Some CARICOM states have expressly referenced their technology needs in their NDCs (see Annex), as well as in

6. A Technology Mechanism has been created to facilitate enhanced action on technology development (comprising a Technical Executive Committee and a Climate Technology Centre and Network), and processes for the compilation of technical needs assessments (TNAs). TNAs play a central role in the UNFCCC Technology Framework, which provides overarching guidance to the UNFCCC’s Technology Mechanism, providing information about the potential, ability, and scale of climate technologies.

technical needs assessments (developed under the aegis of the UNFCCC).⁷ In the area of adaptation, countries in the Latin America and Caribbean region have most frequently

prioritized water (89%), agriculture (67%), and coastal zones (39%)⁸; in mitigation sectors, they have prioritized energy (88%), transport (53%), and agriculture (24%).⁹

3. CARICOM's Trade-Related Climate Priorities

3.1 National and Regional Trade-Related Climate Policies

Although most documents and reports dealing with climate policy in the region make reference to the impact of climate change on CARICOM economies, including their tradable and trade-related sectors, the region lacks a clear articulation of how its trade policy can be used in the service of the sustainable development goals generally, and climate and green resilience specifically (Remy et al., 2021). This contrasts with work in other regions, including those in developing countries like Africa and Latin America (Ismail, 2022).

As will be explored in more detail below, most CARICOM member states do employ trade-related instruments and policies as part of their mitigation and to a lesser extent adaptation priorities in their NDCs (see Annex), but there is no evidence that this has emerged from a concerted or intentional approach between the respective environment and trade policy divisions of member states. The region's climate-related strategies—such as the Regional Action Plan for the implementation of the Sendai Framework in the Americas and the Caribbean, the CARICOM Energy Policy, the Regional Climate Change Framework and its Implementation Plan for Development Resilient to Climate Change, the OECS Biodiversity and Ecosystems Framework and Strategic Action Plans—and the regional entities with responsibility for climate-change—the CARICOM Secretariat, the Caribbean Development Bank, or the Caribbean Community Climate Change Centre—have not embraced trade and trade negotiations as part of their policy tools

for advancing their respective climate agendas. While civil society organizations in the region have begun to organize and mobilize their advocacy efforts and increase capacity around climate change, their agenda is much more geared towards climate justice, and human and civil rights, with trade receiving scant mention or attention (CANARI, 2022).

3.2 Climate Change Priorities in Bilateral Trade Relations

Climate change in trade negotiations will more likely be defined by the priorities of the Caribbean's main trading partners, many of whom will increasingly condition access to their markets on compliance with their respective climate agendas. The most important trade partners for CARICOM countries region are China, the United States, and the European Union (EU), three actors which contribute the most to GHG emissions, represent important shares of the global economy, and adopt different approaches to climate mitigation (Remy et al., 2021). Among these three, the EU has certainly positioned itself as a global leader on environment. With the adoption of the European Green Deal, climate policy is now firmly embedded in the EU's new growth as well as its trade strategy (OECD et al., 2022).

The Caribbean has formal reciprocal trade relations with the EU through the CARIFORUM-European Union Economic Partnership Agreement (CEPA). CEPA was negotiated in 2008 and was the first to include specific chapters on sustainability and social impacts, and

7. Between 2009 and 2023, Antigua and Barbuda, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Suriname, Trinidad and Tobago, Bahamas, and Saint Kitts and Nevis completed TNAs which together with those of Latin American countries amounted to \$542 million for adaptation and \$100 million for mitigation.

8. For instance, Jamaica prioritized rainwater harvesting in order to collect, store and conserve surface run-off by households. Using rainwater harvesting, Jamaica envisages being more resilient in facing restricted water supplies in areas affected by increasing periods of drought triggered by warming temperatures. In the agriculture sector, the priority is on technologies for irrigation and farming systems, such as drip irrigation, micro-sprinklers, soil nutrition, soil conservation, and the introduction of climate-resilient crops. In Suriname, the development of climate-resilient crop varieties is considered key to ensuring future food and nutritional security. This goes hand in hand with Suriname's NDCs, which stress the goal of increasing the contribution of the agriculture sector to the national economy while taking into consideration the projected effects of climate change.

9. For instance, in Antigua and Barbuda, energy use in office buildings accounts for nearly 20% of the country's annual GHG emissions, prompting the need to invest in less energy-consuming infrastructure. In its TNA, the country identifies the need to develop energy-efficient buildings, including passive houses, which would help reduce electricity peak loads and contribute to reducing greenhouse gas emissions.

incorporates more general principles on sustainable management of natural resources. CEPA contains provisions to inter alia protect the environment through multilateral environmental agreements (MEAs); facilitate trade in environmental goods and services; and cooperate on private and public voluntary and market-based schemes, the implementation and enforcement of MEAs, the facilitation of trade in natural resources, the production of environmental goods and services, and on the promotion and facilitation of public awareness and education programmes. One of the more innovative provisions stipulates a requirement to cooperate on eco-innovation and renewable energy projects (see Box 2), but there is no evidence that this has actually been made operative to date.¹⁰

The trade performance of the CARIFORUM region under CEPA has not been robust or diversified. The main Caribbean exports are fuel and mining products (petroleum gas and oils), bananas, sugar and rum, minerals (notably gold, corundum, aluminium oxide, and hydroxide), iron ore products, and fertilisers. Agricultural exports are concentrated in beverages, spirits and vinegar; cereals; sugars and sugar confectionery; fish and crustaceans, molluscs and other invertebrates; edible fruit and nuts; and peel of citrus fruit or melons (UNCTAD, 2021). Trinidad and Tobago is responsible for more than half of all Caribbean exports to Europe, with Guyana and the Bahamas following at a distance (European Commission, n.d. -a). With this trade profile—particularly the concentration on agricultural exports—the region is likely to be impacted by a number of the EU's Green Deal policies, including those set out in Box 3.

Box 2. CEPA Article 138: Cooperation on Eco-Innovation and Renewable Energy

1. With a view to achieving sustainable development and in order to help maximise any positive and prevent any negative environmental impacts resulting from this Agreement, the Parties recognise the importance of fostering forms of innovation that benefit the environment in all sectors of their economy. Such forms of eco-innovation include energy efficiency and renewable sources of energy.

2. Subject to the provisions of Article 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas:

- (a) projects related to environmentally-friendly products, technologies, production processes, services, management and business methods, including those related to appropriate water-saving and Clean Development Mechanism applications;
- (b) projects related to energy efficiency and renewable energy;
- (c) promotion of eco-innovation networks and clusters, including through public-private partnerships;
- (d) exchanges of information, know-how and experts;
- (e) awareness-raising and training activities;
- (f) preparation of studies and provision of technical assistance;
- (g) collaboration in research and development; and
- (h) pilot and demonstration projects.

10. The new partnership agreement concluded between the EU and members of the Organisation of African, Caribbean and Pacific States (OACPS), which succeeds the Cotonou Agreement, while not a free trade agreement, contains more far-reaching and ambitious provisions in both its general section (applicable to all ACP regions) (Part II Title V) as well as under the Caribbean Regional Protocol.

Box 3. Elements of the EU's Green Deal That Might Impact CARICOM Exports

- The proposal for regulation on deforestation free products is one of the most recent and ambitious initiatives to promote sustainable consumption. It focuses on halting deforestation associated with the production of soy, beef, palm oil, wood, cocoa, and coffee and the products derived from them. Only legally deforestation free products will be allowed on the EU market.
- Fit for 55 is a package of proposals aimed at ensuring a just, competitive, and green transition. Investments in a low carbon economy can stimulate economic growth and employment, accelerate the transition to clean energy, and increase long term competitiveness. It strengthens existing regulations and presents new initiatives on climate, energy and fuels, transport, buildings, and land use and forestry to reach an emissions reduction of 55% by 2030.
- The New Circular Economy Action Plan lays the foundation for a cleaner and more competitive EU. It focuses on the most resource intensive sectors with high circularity potential including food, water, nutrients, packaging, plastics, textiles, construction, buildings, batteries, vehicles, and electronics and information and communications technology. Its scope involves the whole life cycle of products: design, sustainable consumption, waste disposal/management, etc.
- The Biodiversity Strategy for 2030 will enlarge EU protected areas with high biodiversity and climate value on land and at sea, and will establish measures to restore degraded ecosystems, especially those with superior potential to capture and store carbon.
- The research and innovation component of the Farm to Fork Strategy will focus on food, bioeconomy, natural resources, agriculture, fisheries, aquaculture, and the environment. Knowledge transfer will be essential, too. The EU will collaborate with third countries to support a global move towards sustainable food systems.
- The Carbon Border Adjustment Mechanism (CBAM) complements the EU's Emissions Trading Scheme, allows for a border adjustment of carbon pricing imposed by other countries for carbon emissions. The CBAM will be based on a system of certificates to cover the emissions involved in products imported by the EU. Initially, it will only apply to a number of selected products with a high risk of carbon leakage: iron and steel, cement, fertilisers, aluminium, and power generation.

See OECD et al. (2022).

More data will have to be collected to assess the actual and potential impact of these and other EU policies on CARICOM exports. For instance, if passed in its current form, the EU's CBAM policy is likely to impact Trinidad and Tobago's exports of ammonia to that market. The deforestation policy might affect those countries like Guyana and Suriname with substantial forest cover (Remy & Ellis-Bourne, 2021). Other EU food standards—relating more generally to sustainability—are also affecting the region's move into niche exports. In a recent United Nations Conference on Trade and Development (UNCTAD) feasibility study considering the export potential of CARICOM herbs and spices, cocoa, sugarcane, coconut, and aquaculture products, it was estimated that there are 54 voluntary sustainability standards for agriculture products and 27 for aquaculture that would impact CARICOM (UNCTAD, 2020). Ensuring that these do not constitute impenetrable non-tariff barriers that stifle market access should be a key trade priority for the region.

Finally, the EU is also likely to influence CARICOM climate priorities through the envelopes of funding it provides as part of its development cooperation in the region. For instance, as part of the Partnership for a Caribbean Green Deal under the EUROCLIMA+ Project of 20021—2027, the EU provides support to projects to increase resilience to climate change, but these are likely to reflect its own priorities under the Green Deal and not necessarily the region's (EU, n.d.).

Some suggestions have been advanced for improving the alignment of the EU's trade-related climate priorities with CARICOM's own, including through the strengthening of relations in the area of technology transfer and developing innovation towards a green transition; building on its expertise, experience and technologies related to environmental goals; focusing on the financing available under the EUROCLIMA+ programmes to promote dialogue; and greater use, and possibly renegotiation of CEPA as a political forum to generate greater dialogue to avoid the negative impacts arising from the unilateral imposition of the CBAM and other such standards (OECD et al., 2022).

3.3 Climate-Related Discussions at the WTO

Traditionally, the environment has not been treated as a core negotiating or rule-making area for the WTO. In fact, discussions there have been fairly fragmented, with a few committees taking up the topic in the context of their overall work programmes (Bellmann, 2022; Bellmann et al., 2022). This has begun to change with appointment of Dr. Ngozi Okonjo-Iweala as the Director-General of the WTO, who has projected a far more open posture for the WTO to tackle sustainability issues, including ones relating to climate change (WTO, 2022b). This year, the WTO Secretariat's World Trade Report focused on International Trade and Climate Change, and was released in time for COP27 (WTO, 2022d). The WTO has also created a dedicated webpage featuring its increased climate-change related activities, staff information notes and working papers, meetings where climate change issues have been discussed, submissions on climate change, and WTO members' notified measures on climate action (WTO, n.d.-f).

There are also clear signs among the membership that consensus is building for more intentional work on climate change. The Outcome Document agreed at the Twelfth WTO Ministerial Conference (MC12) held in Geneva in June 2022 included an unprecedented reference to climate change.¹¹ Moreover, in the margins of MC12, around 20 WTO members explored the establishment of a coalition of trade ministers on climate issues.¹² CARICOM was represented at that meeting by the Minister of Trade of St. Vincent and the Grenadines.

Much of the momentum is being driven by the member-driven initiatives under the Trade and Environmental Sustainability Structured Discussions (TESSD), launched in 2020 (WTO n.d.-e). Around that same time, other environment-related initiatives—the Informal Dialogue on Plastics Pollution and Environmentally Sustainable Plastics Trade (IDP) and the Fossil Fuel Subsidy Reform

initiative – were also launched. TESSD has, at the time of writing, attracted 74 members and is coordinated by the ambassadors of Canada and Costa Rica. Prior to MC12, TESSD members agreed to a Ministerial Statement on Trade and Environmental Sustainability that recognizes the importance of trade and trade policy in supporting climate goals and promoting more sustainable production and consumption and stressed the importance of environmental sustainability as a central issue for the WTO agenda. Although the statement was not included as part of the package at MC12, TESSD participants agreed, *inter alia*, to launch dedicated discussions on how “trade-related climate measures and policies” can best contribute to climate and environmental goals and commitments. Its co-sponsors also set out a work programme for 2022, which culminated in a high-level event in December 2022 to review progress achieved (notably identification of good practices, voluntary actions, and partnerships in the relevant areas) and adopt next steps towards the Thirteenth WTO Ministerial Conference.

CARICOM's Priorities on Climate Change Issues at the WTO

To date, only one CARICOM country—Suriname—has signed onto the TESSD initiative; and none has yet supported the Joint Statement on Fossil Fuels Subsidies. By contrast, at least three CARICOM members—Barbados, Jamaica, and Suriname—have signed onto the IDP, with Barbados being one of the co-convenors of that initiative.

Beyond discussions on trade and natural disasters arising in the Committee on Trade and Development—in which CARICOM states play a key role (see below)—it is difficult to detect a clear negotiating agenda on climate change for the region. In the WTO's Environmental Database—which contains over 4600 environmental measures notified by WTO members—there are a few CARICOM standards relating to the environment and the ozone layer and promotion of food safety generally, but none refers to climate change specifically (WTO, n.d.-c).

11. World Trade Organization, MC12 Outcome Document, WTO Doc. WT/MIN(22)/24, WT/L/1135 (June 22, 2022). Specifically, ministers “recognize[d] global environmental challenges including climate change and related natural disasters, loss of biodiversity and pollution”; highlighted the importance of the trading system promoting the SDGs and recognizing the various development levels of different members and the need to support developing countries through technological innovation; and noted the role of the Committee on Trade and Environment as a standing forum dedicated to dialogue among members on the relationship between trade measures and environmental measures.
12. The discussion, organized by the EU, Ecuador, Kenya, and New Zealand, sought to enhance ministerial-level dialogue to bring climate change to the forefront of trade policy and also explore how partner organizations can help support the effort. See WTO (2022a).

Based on this limited “footprint” in WTO negotiations, the next section attempts to provide initial insights into what the trade-related negotiating priorities of CARICOM countries might be at the WTO, using as one starting point the trade-related components of CARICOM countries’ NDCs.

Trade-Related Elements in CARICOM NDCs

Nationally determined contributions can serve as a fertile basis for discerning priorities of countries which lack a well-articulated or advanced trade and climate strategy. For one, NDCs typically emerge from a very extensive internal process involving a number of national stakeholders, and are likely to reflect the government’s national strategy and benefit from domestic buy-in. Second, and at the broader institutional level, using NDCs to mine for trade negotiating priorities can help in aligning the goals of two core institutions—the UNFCCC and the WTO—on the frontlines

of multilateral action on climate change. Some regional trade agreements already contain provisions that seek to reinforce the linkage between NDCs and trade obligations (Tokas, 2022) and academic work has already started in this area.¹³

While CARICOM’s NDCs were not necessarily prepared with trade agreements in mind, many contain trade-related elements that bear on topics that very much fall within the WTO’s remit. As can be seen from Figure 2, CARICOM NDCs prioritize restrictions on the imports of energy-inefficient products and promotion of energy-efficient imports; the use of domestic standards; and the transfer of technologies, all topics that could fall within the remit of the WTO.

Moreover, as reflected in Table 3, many CARICOM NDCs reflect CARICOM governments’ intention to utilize tariff reduction measures to encourage the diffusion of environmental goods like electric vehicles and renewable equipment.

Table 3. Tariff Reduction Measures on Environmental Goods in Select CARICOM States

Country	Tariff Reduction Measure
Barbados	<ul style="list-style-type: none"> Excise tax and VAT holiday for electric vehicles and reduced import duties for used electric vehicles to 10%, equivalent to what is charged on new electric vehicles. Tariff on both battery electric and solar powered vehicles (new and used) reduced to 10%. Import duty on hybrids lowered, but not by as much as EVs. Government officers receive increased interest free loans to purchase either battery electric or hybrid vehicles (Central Bank of Barbados, 2022).
Dominica	<ul style="list-style-type: none"> Removal of all VAT and import duties on electric cars, buses, and motorcycles (Q95 News, 2019).
Guyana	<ul style="list-style-type: none"> Removal/reduction of tariffs on environmental goods. A two-year corporation tax holiday for companies importing wind and solar energy equipment (Government of Guyana, 2021).
Trinidad and Tobago	<ul style="list-style-type: none"> Removal of all custom duties, motor vehicle tax and value-added tax on the importation of battery-powered electric vehicles with an age limit on imported used battery-powered electric vehicles of two years (CARICOM, 2021).

13. Brandi (2017) uses criteria such as reducing trade barriers, regulating trade on climate grounds, regulating timber trade, standards and labelling, border carbon adjustments, renewable energy, fossil fuel subsidy reform, international market mechanisms, technology transfer, response measures, and co-benefits. See also Elkahwagy et al. (2017). Under this study, the measures are divided generally into five main categories: energy-related; green industrial policies; financial and direct trade measures; international cooperation; and green government procurement practices. See also Morellato et al. (2022).

Figure 2. Country Tally of NDC Measures Affecting Short Term Import Expenditure in the Caribbean

	Block energy-inefficient imports	Impose new domestic standards	Develop renewable energy	Reduce trade barriers for efficient imports	Reduce dependence on imported fuel	Encourage technology transfer
Caribbean						
Antigua	✓	✓	✓		✓	✓
Bahamas	✓	✓	✓	✓	✓	✓
Barbados		✓		✓		✓
Belize	✓	✓	✓			
Cuba			✓	✓		✓
Dominica	✓		✓		✓	
Dominican Republic	✓	✓	✓	✓		✓
Grenada		✓	✓		✓	
Guyana		✓	✓			
Haiti	✓		✓			✓
Jamaica	✓					
Saint Kitts and Nevis			✓			✓
Saint Lucia			✓			✓
Saint Vincent and the Grenadines		✓	✓	✓	✓	✓
Suriname	✓	✓	✓			✓
Trinidad and Tobago			✓			

Source: OECD et al. (2022).

Ongoing Climate Change-Related WTO Negotiations

Based on the profile of CARICOM states, and with a view to advancing their interests at the WTO negotiations, we provide below a tentative list of ongoing discussions and/or negotiations in which CARICOM might consider intervening. They include discussions on trade and technology transfer, aid for trade, fossil fuel subsidies, agriculture and food security, natural disasters, environmental goods and services, and standards. In addition, we have included areas where there might be scope for more offensive participation by CARICOM countries, but for which the WTO negotiations are not yet “ripe” for action. We have excluded a detailed discussion on fisheries even though, as noted above, this is a key sector impacted by climate change in the region. This is because of the already advanced negotiations on the topic in the context of the Fisheries Subsidies Agreement, concluded at the MC12 negotiations in Geneva in June 2022 WTO.

Improving Access to Green Technologies Through Improved Rules on Technology Transfers and Investment

Our analysis above underscores that a top priority for CARICOM states are rules or policies that encourage the transfer of green technologies from the developed world to CARICOM countries. Priority areas for the region include technologies related to renewable energy generation and improving water and agricultural systems to address the increasing occurrences of droughts and floods in recent years as a result of climate change.

The WTO has not proved to be an effective forum thus far in addressing the climate-related technology transfer needs of developing countries (Cottier, n.d.) and where they have been broached in the context of TESSD, they have focused on topics such as vaccine access and health-related technologies.

Much of the discussion at the WTO has revolved around one provision under the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) that encourages technology transfer to least-developed countries (LDCs). Specifically, Article 66.2 creates a general, non-binding obligation on developed countries to assist with the diffusion of technology by incentivizing national enterprises

and institutions to transfer technology. To date, however, there is also little evidence that any of the sought-after transfers are happening in practice or that the reporting system put in place for Article 66.2 implementation has been utilized. Many critics have underscored that rather than being an issue of intellectual property rights, the current lack of flows to developing world relates to the absence of financial incentives for such investments (Cottier, n.d.).

There is a difference in views on how to make progress in the actual negotiations. LDCs have stressed the potential of the WTO's Working Group on Transfer of Technology (WGTT) to assist with the sharing of in-country experiences and helping to identify how trade can facilitate technology transfer (Kelly et al., 2021). In the area of climate change technology transfer specifically, some recommendations that have been made for LDC negotiators would be equally beneficial to CARICOM. They seek to improve levels of coordination between the WTO and UNFCCC by inter alia, building on existing technical needs assessments to identify the technologies needed from developed country partners; and using the WTO as a venue for reiterating the need for the donor community to prioritize resources to support needs assessments and then delivering the technologies identified through the WGTT (Kelly et al., 2021). Coordination within the WTO Committees can also be strengthened. For instance, the TRIPS Council should be engaged to promote climate friendly technologies in the context of discussions related to the implementation of Article 66.2 and TESSD discussions should provide a space for the sharing of best practices, especially by countries like India that have been effective in domesticating developed country technologies.

Beyond coordination efforts, some authors have actually recommended more far-reaching changes at the level of rule amendments. One author has suggested that the Agreement on Subsidies and Countervailing Measures (SCM) should be amended to allow domestic tax reductions to companies investing in LDCs, and that tax revenues generated from carbon tariffs and border tax adjustments be used to fund technology dissemination in LDCs (Cottier, n.d.). Others still are lobbying for the negotiation of a Doha-like waiver under TRIPS Article 31(f) that would grant compulsory import licences for certain climate technologies (Brandi, 2017).

CARICOM could support any of these initiatives to advance the transfer of technology agenda at the WTO and specifically seek the extension of the special treatment accorded to LDCs under Article 66.2 to SIDS. It might also offer Article 138 of the CEPA as a model provision (see above) for discussion and for further strengthening at the multilateral level.

Aid for Trade Reviews as an Avenue for Coordinating Climate Finance

The WTO-led Aid for Trade initiative was first launched in 2005 at the Sixth WTO Ministerial Conference in Hong Kong. Its objective is to “to help developing countries, particularly LDCs, to build the supply-side capacity and trade-related infrastructure that they need to assist them to implement and benefit from WTO agreements and more broadly to expand their trade.” Aid for trade is provided by individual governments or through multilateral agencies but is guided by multi-annual work programmes defined through the WTO Committee on Trade and Development (CTD) and monitored through regular Aid for Trade Reviews (Bellmann et al., 2022)

For the period 2020–22, governments adopted an aid for trade work programme with the theme “Empowering Connected, Sustainable Trade.” A key focal point of the work programme was the 2022 Global Review, the results of which were presented in July 2022 (OECD & WTO, 2022). Of the 53 developing countries which responded to the questionnaire circulated for the review, 51—including two countries from CARICOM¹⁴—referenced environmental sustainability as a priority in their development strategies.¹⁵ Moreover, one of the areas earmarked for greater attention in the review was financing for environmental objectives. Although the report noted that donors have pledged to support the transition to a low-carbon economy by expanding funding, and that climate finance provided by

developed countries has steadily increased since 2013, the \$79.6 billion collected in 2019 was still considered inadequate to meet the commitment to meet the \$100 billion annual target. The report also highlighted the increased engagement on financing between the public and private sectors, emphasizing their catalytic role for mobilizing investment in green supply-side infrastructure (OECD & WTO, 2022).

The specific attention being paid to the environment and climate change—and climate finance in particular—in the latest aid for trade report signals a positive development for the WTO. However, there is room for developing a better understanding of the linkages between the UNFCCC and aid for trade programming, as well as across domestic ministries, when it comes to coordinating financing with donors (Keane et al., 2021). CARICOM SIDS, which were poorly represented in the latest review, should also do more to raise their visibility in that forum.

The climate finance agenda at the WTO however should not end with aid for trade given its centrality to the green transition. The current momentum for reforming the international financial architecture inherited under Bretton Woods provides a unique opportunity to integrate the finance within the core ambit of WTO negotiations. One attempt to do so was led by Jamaica on behalf of the ACP Group through a paper presented to the WTO’s Working Group on Trade, Debt and Finance.¹⁶ In it, the group highlighted inter alia the debt that many of its ACP countries face and called on the WTO to “foster the conversation” with private and multilateral institutions to address that issue. Given their advocacy in the climate space and the creativity of approaches being taken to the problems of access to finance, this is an area in which CARICOM countries should take a leadership role at the WTO.

14. St. Lucia and St. Vincent and the Grenadines.

15. The report featured examples from the region of priority areas, for instance, St. Lucia’s attempt to develop a carbon offset mechanisms to negate emissions incurred during inbound and outbound air travel, with funds collected through this programme used to fund local reforestation or renewable energy initiatives; and its difficulty in transitioning to sustainable industrial sector due to the lack of capital to retrofit plants and re-engineer manufacturing processes and lack of technological know-how and expertise, particular among micro, small and medium-sized enterprises (representing 80% of the business community).

16. World Trade Organization, Communication from Jamaica, on behalf of the African, Caribbean and Pacific Group of States (ACP) of 6 October 2011, WTO Doc. WT/WGTDF/W/101.

The Just Energy Transition: From Fossil Fuel Subsidies to Promoting Energy Security

The high dependence on fossil fuels not only presents a national security risk to the region, but also comes at a substantial cost. As of 2015, the Caribbean had recorded among the highest per capita energy costs in the world (McIntyre et al., 2016), with most energy coming from imported fossil fuels, and as noted above in Figure 1, energy consumption accounts for the highest GHG emissions in the region. CARICOM's dependence on fossil fuels also impacts the region's most important trade-related sectors. In CARICOM's tourism-based economies, commercial consumers like hotels and tourist establishments are the most intensive energy users, absorbing, in 2015, around 41% of ex-transportation primary energy, with air conditioning accounting for almost half of consumption. In the region's commodity-exporting countries—where the productive base is larger—the industrial sector is the largest energy consumer with a share of about 57% (McIntyre et al., 2016).

Discussions on fossil fuels at the WTO are being led by New Zealand through the Fossil Fuel Subsidy Reform initiative.¹⁷ In addition to calling for the rationalization and phasing out of fossil fuel subsidies along a clear timeline, a 2021 ministerial statement establishes a process for dialogue, transparency, learning, and experience-sharing vital to spurring national reforms and enhanced international cooperation.

Even though they have all committed to eliminating fossil fuel subsidies in other agreements—for instance in the Caribbean Protocol of the Post-Cotonou Agreement—and despite clear indications in their NDCs to reduce dependence on fossil fuels and transition to renewable low-carbon economies, no CARICOM country has signed up to the WTO Fossil Fuel Subsidy Reform initiative or the ministerial statement. While not being major providers of production or consumption subsidies, CARICOM members are likely adopting a cautious approach towards the imposition of multilateral disciplines at the WTO for

a number of reasons. First, many CARICOM countries have recently discovered oil wells or are in the process of doing so: Guyana's offshore reserves amount to around 11 billion barrels oil equivalent and counting, with production expected to reach one million barrels per day by 2027; Suriname is expected to auction 60% of its offshore oil blocks over the next year; and Jamaica and Barbados have signed or extended oil exploration or production agreements (Wazim & Insanally, 2022). Second, many Caribbean economies also rely heavily on subsidized oil provided by Venezuela through the PetroCaribe programme. Third, CARICOM governments are also unlikely to be desirous of tying their hands when it comes to consumption subsidies given the high oil prices and Ukraine war, which has led to cuts in fuel prices and price fixing at the petrol pump (CARICOM, 2022). Finally, there are “sovereignty” and justice undertones that have recently characterized CARICOM's interventions on the issue of fossil fuels. For instance, although Guyana has adopted a low-carbon strategy as a pathway to development, its president has stated publicly that he does not want to see its freedom to exploit its own natural resources curtailed by international regulation (Cooperative Republic of Guyana, 2022). Barbados' Prime Minister Mottley has also stated that a net zero ambition does not mean no fossil fuels; rather, equity demands that those developing countries that have been exploited be allowed to catch up with the developing world which has caused the climate crisis in the first place (Varin, 2022).

The region's position is therefore nuanced, focused on finding positive ways for smaller countries to transition their economies, without completely abandoning their dependence on fossil fuels. One of the proposals under the Bridgetown Agenda has been the creation of a Loss and Damage Fund which would use windfall profits from fossil fuel producers to help developing countries build climate resilience (Persaud, 2022). The WTO could contribute to discussions on the creation of such a fund. With the Caribbean's abundance of natural resources ranging from solar to wind and geothermal energy, and to a lesser extent hydro and biomass renewables, CARICOM states could also

17. World Trade Organization, Ministerial Statement on Fossil Fuel Subsidies of 10 June 2022, WTO Doc. WT/MIN(21)/9/Rev.2 See generally WTO (n.d.-d).

advance discussions at the WTO that promote investment and trade in renewable energy goods and encourage the liberalization of renewable energy-related services such as generation, consulting, design, installation, maintenance,

and repair. This would help to provide even more security to foreign direct investment that is already occurring in the region. Figure 3 shows the 10 largest foreign-owned renewable energy projects in the region during 2009–2016.

Figure 3. Ten Largest Renewable Energy Foreign Direct Investment projects in the Caribbean (2009–2016)

Year	Investing Company	Destination Country	Sector	Capital Investment (\$ million)	Est. number of jobs
2016	Benchmark Renewable Energy	Jamaica	Biomass power	95	58
2015	General Energy Solutions	Dominican Republic	Solar electric power	110	9
2015	First Colombia Gold	Suriname, Jamaica, Belize	Solar electric power	428	207
2015	WRB Enterprises	Jamaica	Solar electric power	60	11
2014	Cahill Energy	Barbados	Biomass power	240	43
2013	Wircon (Wirsol)	Dominican Republic	Solar electric power	253	175
2011	Viaspace Green Energy	Dominican Republic	Biomass power	91	109
2010	Synergy Holdings	Guyana	Hydroelectric power	156	22
2009	Inveravante Inversiones Universales	Dominican Republic	Wind electric power	506	350
2009	Nacel Energy	Dominican Republic	Wind electric power	253	175

Source: CAIPA (2016).

Another area of focus for the region could be to support growing calls for a carve-out from the SCM Agreement disciplines for renewable energy subsidies. While renewable energy subsidies have been welcomed in some circles as a “public good” for the global economy¹⁸—they would lower the overall price of renewable energy—those discussions have not yet been initiated at the WTO. For CARICOM countries interested in promoting and exporting green goods competitively, the right balance would have to be reached between rules that permit them to develop their own renewable energy sectors and ensuring that other better resourced developed countries that can offer very substantial amounts of subsidies—like those provided by the United States under its Inflation Reduction Act of 2022 (HR 5376)—do not outcompete them. Some authors have proposed de minimis thresholds for any renewable energy subsidies exemptions as well as rules that ensure that any such subsidies do not unfairly distort trade.

Relatedly, some developing countries have criticised findings by the WTO panels and the Appellate Body that renewable energy schemes which provide support to domestic industries—at the expense of foreigners—are WTO incompatible.¹⁹ A number of CARICOM states have included in their NDCs feed-in-tariff schemes as one way of encouraging the transition to low-carbon economies, some of which might contain local content requirements. Given their small size, it is unlikely that any such schemes in CARICOM countries would be brought before a WTO panel or be countervailed by specific countries, but a clarification of rules to exempt SIDS from any such litigation would assure CARICOM policymakers that they have the much needed policy space to develop their indigenous renewable energy sectors.

In their bilateral arrangements with major trading partners, CARICOM member states have also been prioritizing energy transition and climate negotiations. United States Vice President Kamala Harris recently announced the U.S.-Caribbean Partnership to Address the Climate Crisis 2030 (PACC 2030) as part of a new initiative on climate adaptation, resilience, and clean energy programmes across the Caribbean region (White House, 2022).

From Recognition to Implementable Solutions on Natural Disasters

CARICOM's participation in climate change-related discussions at the WTO has been most pronounced in discussions on trade and natural disasters that have arisen in the Committee on Trade and Development. As noted above, climate-induced natural disasters are increasing in the region, with devastating effects on the economic and environmental systems of the region. In 2017, in the midst of a particularly intense cycle of hurricanes and tropical storms affecting the region, six WTO members of the Organization of Eastern Caribbean States (OECS), which form part of the group of small, vulnerable economies (SVEs), tabled a proposal to bring attention to the catastrophic impact of natural disasters on SIDS and SVEs. They suggested “full flexibility” of the multilateral trading system to support disaster recovery and reconstruction, a call that catalysed discussions in the CTD and contributed to the launch in 2018 of the WTO's Natural Disaster and Trade Project. Under that project, two WTO reports highlighting the experiences of SVEs and the flexibilities under the WTO agreements for disaster response, recovery, and resilience of SIDS following climate-induced disasters were published (WTO 2019; Adinolfi, 2019). Table 4 highlights some of the main findings under those reports.

18. For a discussion see for instance (Espa & Marín Durán, 2018).

19. See for instance DS412 (WTO, n.d.-a) and DS456 (WTO, n.d.-b).

Table 4. Possible Scope Under WTO Agreements for Disaster Response, Recovery, and Resilience

Disaster Phase	Trade Measures Typically Adopted	Possible Scope Under WTO Agreements
<p>Disaster Response</p> <p>(immediate aftermath of a disaster event)</p>	<p>Mainly focused on facilitating the availability of domestic and foreign relief goods, equipment, services, and personnel.</p>	<ul style="list-style-type: none"> ▪ Trade Facilitation Agreement can address bottlenecks in the functioning of customs and other border agencies that can arise in disaster response. ▪ Flexibilities under the GATT 1994 allowing (discriminatory) derogations from customs duties and other fees and charges. ▪ Measures to facilitate entry of foreign service suppliers and domestic regulatory measures to support money transfers from abroad (remittances and cash aid).
<p>Disaster Recovery</p> <p>(restoration of assets, systems, and activities within a disaster-affected economy)</p>	<p>Local businesses typically require financial support or support channelled through general government services.</p>	<ul style="list-style-type: none"> ▪ Agreement on Subsidies and Countervailing Measures and the Agreement on Agriculture provide for a considerable margin of action that could be exercised by disaster-affected members, particularly developing countries. ▪ Under the General Agreement on Trade in Services there is somewhat broader room for the provision of subsidies to the services sectors. ▪ Built-in flexibilities between applied and bound tariff rates exist in some member states' schedules. Volume safeguards and balance of payment provisions also exist. Public procurement policies also play an essential role in this respect. ▪ Technical cooperation under the Agreement on Technical Barriers to Trade and the Agreement on the Application of Sanitary and Phytosanitary Measures from trade and development partners deserve consideration, notably in cases where a prior determination of regulatory compliance is lost, and exports from a disaster-affected country are negatively affected.
<p>Disaster Resilience</p> <p>(actions to support the ability of an economy to withstand future shocks)</p>	<p>On trade matters, disaster risk management requires the adoption of specific regulatory measures addressing customs issues that may arise in the disaster response phase aiming at ensuring "continuity management" in customs operations.</p>	<ul style="list-style-type: none"> ▪ Implementation of the Trade Facilitation Agreement can be helpful for disaster-prone countries. ▪ Agreement on Technical Barriers to Trade can be used to promote a "build back better" approach using both domestic regulations and regulatory cooperation internationally. ▪ Flexibilities exist under the Agreement on Agriculture and the Ministerial Decision on General Services for the implementation of government-financed support schemes aiming at strengthening resilience to disasters.

Source: Adinolfi (2019).

Despite these flexibilities, proponents of the SVE agenda at the WTO have called for more dedicated attention to be paid to responses to natural disasters. At MC12, the Work Programme on Small Economies received a boost through a ministerial decision highlighting the work carried out since 2018,²⁰ and instructing the CTD continue its work in the Dedicated Session on Small Economies under the overall responsibility of the General Council. Under the Programme, the CTD is to consider in further detail the various submissions that have been received to date, examine any additional proposals that members might wish to submit and, where possible, and within its mandate, make recommendations to the General Council on any of these proposals. The WTO Secretariat was also instructed to provide relevant information and factual analysis for discussion among members in the CTD's Dedicated Session on Small Economies.

CARICOM can use this decision to develop an implementable agenda and to bring greater awareness and support for trade responses to the impact of natural disasters on SVE economies. The CTD should work closely with TESSD convenors to highlight these issues in ongoing discussions. For instance, where outstanding funding by developed countries remains to be provided under the Trade Facilitation Agreement to implement the customs and border clearance measures or single windows needed by countries to expedite customs processing, the added focus of TESSD discussions might be helpful. Similarly, the CTD and TESSD discussions could pinpoint specific places in the recent initiatives (such as e-commerce, investment facilitation, domestic regulations, and micro, small, and medium-sized enterprises) as well as older ones (fisheries subsidies, market access, agriculture, and services) where a specific focus on natural disasters might assist in promoting SIDS' interests.²¹ In this regard, it is already notable that the Fisheries Subsidies Agreement contains a specific reference to disasters;²² and sustainability concerns are already being discussed in the context of investment facilitation negotiations.

Food Security as the Focus of Agriculture Negotiations

The WTO Agreement on Agriculture was not designed to promote food production per se, but rather to make competition in agricultural trade fairer for countries that cannot or do not subsidize agricultural produce by reducing trade-distorting domestic support and export subsidies (ILA, n.d.). To the extent that they have been raised in the context of food security, WTO agriculture discussions have focused on the trade effects of certain public stockholding programmes that involve government procurement of crops at above-market prices and the sale or other disposal of those stocks. Environmental and sustainability considerations were dealt with in deliberations in the Special Session of the Agriculture Committee under topics such as "non-trade concerns" and "green box" subsidies—which include permissible support measures that have no or minimal impact on trade and help support environmental sustainability in agriculture.

Climate change and the resulting food security concerns it has raised has brought agriculture reform in sharp focus in recent months. Faced also with rising food prices caused by the Ukraine war, and the dislocations caused by the COVID-19 pandemic, WTO members at MC12 issued a Ministerial Declaration on the Emergency Response to Food Insecurity. That Declaration specifically recognizes the needs of net food-importing developing countries (like SIDS) and commits to a dedicated work programme in the Committee on Agriculture.²³ In November 2022, that programme was established with four primary themes to guide future discussions: access to international food markets, financing food imports, agricultural and production resilience of LDCs and net food-importing developing countries, and a set of horizontal issues to foster collaboration. Members also appointed the current chair as the coordinator to lead a working group for topic-by-topic discussions in the coming months (WTO, 2022c).

20. World Trade Organization, Ministerial Decision of 17 June 2022, Work Programme on Small Economies, WTO Doc. WT/MIN(22)/25.

21. For specific ideas for negotiating approaches see Natural Disasters, Trade and Resilience in Commonwealth Countries, by J. Y. Remy, H. Schloemann, C. Pitard, and S. Gilchrist, commissioned by the Commonwealth Secretariat (on file with authors).

22. The Fisheries Subsidies Agreement provides that "Except as provided in Articles 3 and 4, nothing in this Agreement shall prevent a Member from granting a subsidy for disaster relief, provided that the subsidy is: (a) limited to the relief of a particular disaster;"

23. World Trade Organization, Ministerial Declaration on the Emergency Response to Food Insecurity of 17 June 2022, WTO Doc. WT/MIN(22)/28.

Box 4. Recent CARICOM Initiatives for Promoting Regional Food Security

- Commitment by CARICOM heads to remove regional food-related trade barriers, address intra-regional transportation, and reduce the region's food ill by 25% in 2025.
- Leadership by Guyana on food security including through the hosting of Agri-Investment Forum in 2022, and envisioning itself as the "bread basket" of the Caribbean.
- Increased investment in climate smart crops, provision of crop insurance, and exploration of possible public-private partnerships in transportation and logistics.
- Investment by Trinidad and Tobago Republic Bank of \$100 million into CARICOM Sustainability Agriculture Credit Facility to fund at initially low interest rates priority crops, capital equipment, and infrastructure
- Regional food transshipment hub to be created in Barbados to facilitate the swifter movement of regionally produced food.
- Prioritization by the Caribbean Development Bank of food security and transport initiatives by funding members.

Being a region that is a net importer of agricultural products, and which continues to experience droughts, water shortages, as well as land use change as a result of climate change, the shift in the WTO agriculture agenda is a welcome move and should be supported and embraced. That said, with the region's shift inward to promote greater self-sufficiency following the bitter experiences of food and pharmaceutical export restrictions imposed by developed countries during COVID-19, some thought will have to be given to how best to align regional priorities (as reflected in the Box 4) with a multilateral agenda that seeks to promote greater dependency on international food supply chains.

To remain relevant, the WTO's discussions on climate change will have to support these regional efforts, while ensuring that the multilateral rules provide the guarantees needed by CARICOM countries that they can rely on the uninterrupted global supply chains where regional sources are unavailable. CARICOM countries can also not entirely resile from the international negotiations given the dependence most still have on developed country markets for agriculture and food exports and the need for agricultural technologies and investments from the developed world to help mechanize and climate-proof the Caribbean's agricultural and water systems.

Environmental Goods and Services: Moving from a Developed Country Agenda to a SIDS Agenda

Negotiations on environmental goods and services are often perceived as priority areas for developed countries even though it is clear that diffusion of environmental goods and services will be critical for the acquisition and deployment of climate friendly technologies across the Caribbean.

CARICOM states are generally net importers of environmental goods. In 2019, Trinidad and Tobago (10.21%), Jamaica (8.69%), and Guyana (7.1%) had the largest shares of environmental good imports as a percentage of their total imports, while during the same period Trinidad and Tobago (27.5%), Grenada (6.9%), and Barbados (2.87%) recorded the largest shares of environmental good exports as a percentage of their total exports (UN, n.d.; IMF, 2022a; 2022b). Tables 5 and 6 capture the top 10 environmental good exports and imports for Barbados and Jamaica in 2019, using the OECD product list of environmental goods as a guide.

Table 5. Jamaica's Top Environmental Good Imports and Exports (2019)

Top 10 Environmental Good Imports

Code	Product label	Imported value in 2019 (US\$ thousands)	% of total EG imports
281512	Sodium hydroxide "caustic soda" in aqueous solution "soda lye or liquid soda"	104159	31.25
220710	Undenatured ethyl alcohol, of actual alcoholic strength of $\geq 80\%$	27084	8.13
848180	Appliances for pipes, boiler shells, tanks, vats or the like (excluding pressure-reducing valves, ...)	21802	6.54
392690	Articles of plastics and articles of other materials of heading 3901 to 3914, n.e.s. (excluding ...)	15569	4.67
854140	Photosensitive semiconductor devices, incl. photovoltaic cells whether or not assembled in ...	13345	4.00
841381	Pumps for liquids, power-driven (excluding those of subheading 8413.11 and 8413.19, fuel, lubrication ...)	11170	3.35
392020	Plates, sheets, film, foil and strip, of non-cellular polymers of ethylene, not reinforced, ...	10866	3.26
842121	Machinery and apparatus for filtering or purifying water	6883	1.95
392490	Household articles and toilet articles, of plastics (excluding tableware, kitchenware, baths, ...)	6509	1.95
903289	Regulating or controlling instruments and apparatus (excluding hydraulic or pneumatic, manostats, ...)	6186	1.86

Top 10 Environmental Good Exports

Code	Product label	Imported value in 2019 (US\$ thousands)	% of total EG imports
281830	Aluminium hydroxide	14215	57.24
252100	Limestone flux; limestone and other calcareous stone, of a kind used for the manufacture of ...	3609	14.53
731029	Tanks, casks, drums, cans, boxes and similar containers, of iron or steel, for any material, ...	1732	6.97
842121	Machinery and apparatus for filtering or purifying water	1021	4.11
392490	Household articles and toilet articles, of plastics (excluding tableware, kitchenware, baths, ...)	773	3.11
902710	Gas or smoke analysis apparatus	593	2.39
903180	Instruments, appliances and machines for measuring or checking, not elsewhere specified in ...	443	1.78
392690	Articles of plastics and articles of other materials of heading 3901 to 3914, n.e.s. (excluding ...)	387	1.56
841381	Pumps for liquids, power-driven (excluding those of subheading 8413.11 and 8413.19, fuel, lubricating ...)	353	1.42
854140	Photosensitive semiconductor devices, incl. photovoltaic cells whether or not assembled in ...	261	1.05

Source: ITC (n.d.).

Table 6. Barbados' Top Environmental Good Imports and Exports (2019)**Top 10 Environmental Good Imports**

Code	Product label	Imported value in 2019 (US\$ thousands)	% of total EG imports
854140	Photosensitive semiconductor devices, incl. photovoltaic cells whether or not assembled in ...	5752	12.39
392690	Articles of plastics and articles of other materials of heading 3901 to 3914, n.e.s. (excluding ...	5395	11.62
848180	Appliances for pipes, boiler shells, tanks, vats or the like (excluding pressure-reducing valves, ...)	3114	6.71
392490	Household articles and toilet articles, of plastics (excluding tableware, kitchenware, baths, ...	2483	5.35
841381	Pumps for liquids, power-driven (excluding those of subheading 8413.11 and 8413.19, fuel, lubricating ...	2280	4.91
842121	Machinery and apparatus for filtering or purifying water	1851	3.99
731029	Tanks, casks, drums, cans, boxes and similar containers, of iron or steel, for any material, ...	1697	3.65
730900	Reservoirs, tanks, vats and similar containers, of iron or steel, for any material other than ...	1413	3.04
847989	Machines and mechanical appliances, n.e.s.	1321	2.84
840991	Parts suitable for use solely or principally with sparkignition internal combustion piston ...	1042	2.24

Top 10 Environmental Good Exports

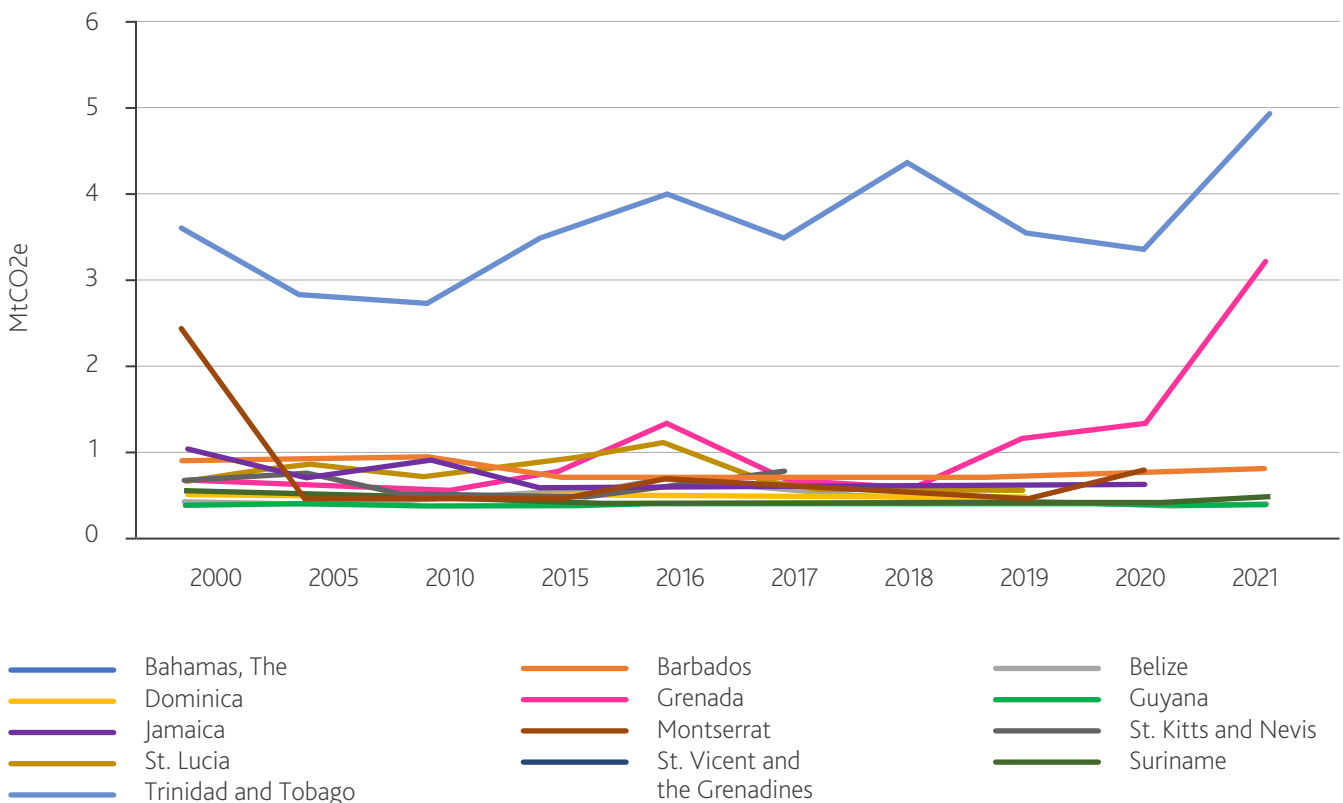
Code	Product label	Imported value in 2019 (US\$ thousands)	% of total EG imports
731029	Tanks, casks, drums, cans, boxes and similar containers, of iron or steel, for any material, ...	4350	43.22
220710	Undenatured ethyl alcohol, of actual alcoholic strength of $\geq 80\%$	3860	38.35
841919	Instantaneous or storage water heaters, non-electric (excluding instantaneous gas water heaters ...	378	3.76
392690	Articles of plastics and articles of other materials of heading 3901 to 3914, n.e.s. (excluding ...	340	3.38
252100	Limestone flux; limestone and other calcareous stone, of a kind used for the manufacture of ...	249	2.47
320910	Paints and varnishes, incl. enamels and lacquers, based on acrylic or vinyl polymers, dispersed ...	184	1.83
392490	Household articles and toilet articles, of plastics (excluding tableware, kitchenware, baths, ...	117	1.16
730900	Reservoirs, tanks, vats and similar containers, of iron or steel, for any material other than ...	80	0.79
841381	Pumps for liquids, power-driven (excluding those of subheading 8413.11 and 8413.19, fuel, lubrication ...	57	0.57
840991	Parts suitable for use solely or principally with sparkignition internal combustion piston ...	45	0.45

Source: ITC (n.d.).

Most Caribbean countries have demonstrated a relative disadvantage in environmental goods trade, reflecting the region's current limited export potential in this area. Using International Monetary Fund staff calculations, where comparative advantage is calculated as the proportion of

an economy's exports that are environmental goods to the proportion of global exports that are environmental goods, Figure 4 reveals that only Trinidad and Tobago, and in more recent years Grenada, have registered values greater than one, which indicate a relative advantage in environmental goods.

Figure 4. CARICOM's Comparative Advantage in Environmental Goods



Source: UN (n.d.) and IMF (2022a; 2022b).

Although they are likely to remain as net importers, and therefore not main demanders in any WTO negotiations on environmental goods, CARICOM countries should explore opportunities to participate in global value chains for the production of renewable goods, whether that lies in the patents for such goods,²⁴ or raw materials necessary for their use.²⁵

Calls to clarify which goods qualify as “environmental” would assist CARICOM countries in identifying which ones should be prioritized in contributing to their transition as well as where market access opportunities might lie. Given

the region's rich biodiversity, natural fibres represent a potential niche for the Caribbean to exploit, but greater research is needed in this area. One study has already examined the utility of Caribbean coconut fibres (which are environmentally friendly) for potential applications in civil engineering. The study's analysis found that “the tensile strength, modulus, strain at break and crystallinity properties of the Caribbean coir fibres were comparable to commercially available coir fibre currently being used in many building applications” (Mathura et al., 2014). There is evidently potential for the region to consider

24. Developers in Barbados in the 1970s created solar water heaters which have become widespread in Barbados (CDKN, 2012).

25. See for instance Lipton (2022) in The New York Times, raising concerns about rights purchased by private companies to mine cobalt, copper, and nickel—necessary for the running of electric vehicles—in the seabed of islands in the Pacific Oceans.

commercializing this asset which has typically been discarded as waste material. This type of R&D which involves converting waste into useable output can prove beneficial in assisting the region to develop a circular economy. Here, the pioneering work being done by UNCTAD (n.d.) on encouraging nature based (bio)trade should be supported.

Similarly, given the region's reliance on its natural resources, it has built up considerable expertise in areas such as sustainable tourism, forestry, climate change, weather, and the blue economy sectors. A greater focus on negotiations on environmental services—which has not attracted as much attention at the WTO as environmental goods—might open up opportunities for the region to advance more offensive interests.

Promoting Greater Participation in Carbon Standards-Setting

As noted above, many CARICOM NDCs include domestic environmental and energy standards as a key area of focus: for instance, standards for building and lighting and electrical appliances remains a mitigation priority. The CARICOM Regional Organization for Standards and Quality (CROSQ) has been assisting CARICOM member states by developing a regional energy efficiency building code, energy efficiency labelling standards, and minimum

energy performance standards for electrical appliances; as well as developing energy efficiency labelling standards and minimum energy performance standards for light industrial appliances. CROSQ members have committed to the London Declaration to combat climate change through standards and defines the International Organization for Standardization's commitment to achieve the climate agenda by 2050 (ISO, n.d.).

Compliance with environmental and climate change standards as a trade-related issue is very relevant to the region, primarily because developed countries are likely to increasingly (unilaterally) impose carbon standards as conditions to accessing their markets. Already, the EU's CBAM has attracted attention in WTO committees,²⁶ and is estimated to impact Trinidad and Tobago, with its EU market share of 16.3% in ammonia in 2020. Absent an equivalent carbon tax being imposed on regional carbon (see however Box 5), and with limited capacity to measure, verify, and monitor carbon content and emissions from goods, CARICOM member states stand to be negatively impacted by unilateral rules imposed on the basis of carbon content requirements. For smaller countries, therefore, concerted action at the multilateral level in designing carbon adjustment schemes and standards is always preferable as is participation in any of the multilateral bodies in which any of those standards are being developed.

Box 5. A Proposed Upstream Carbon Tax at the Wellhead

One interesting carbon proposal that has emerged from the University of Guyana's Green Institute is Upstream Carbon Tax at the Wellhead (UCTW). This tax would be implemented in the Guyana-Suriname region where recent discoveries of oil has generated discussions about how to best use these discoveries to transition to renewable energy sources. Under this proposal, the tax would be levied, not at petrol pumps—which would allow the oil importing governments to gain the benefits of taxes on consumers—but rather upstream at the wellhead in the Guyana-Suriname Basin. The upstream carbon tax would be superior from a national (Guyana or Suriname) perspective to the downstream version that has been advocated because Guyana and Suriname would earn revenues from the measure. The proponents of the carbon tax explain that the monies levied from the tax would be earmarked for activities that will not lead to a leakage, or an increase in CO₂ emissions elsewhere; or may even reduce them further. In the case of the UCTW, the revenues ought to be thought of as self-generated climate finance, to be used for adaptation, and perhaps for loss and damage, and climate resilience; and also for immediately fulfilling the unconditional and conditional NDCs made under the Paris Agreement

Source: University of Guyana GREEN Institute (2021).

26. See for instance, World Trade Organization, Minutes of the Committee on Market Access 29 and 30 April 2021, WTO Doc. G/MA/M/74.

Finally, as noted above, the region has signalled a desire to enhance its eco-labelling and standards to promote its tourism product. For instance, Jamaica has committed to “greening of tourism by obtaining certifications such as the GreenGlobe Certification.” Participation in the setting of standards and notification in WTO committees would help to augment CARICOM’s reputation as a climate-friendly destination.

Creating Revenue Potential Through a Progressive Trade and Climate Agenda

While the sections above reflect areas where CARICOM can sharpen its focus in existing negotiations, the region should also fully embrace the opportunity of the sustainability agenda to create new negotiating priorities where it enjoys a comparative advantage.

One of the lowest hanging fruits for the region to consider is the export of ecotourism. In 2021, the global ecotourism market was valued around \$185.87 billion and is expected to grow at a compound annual growth rate of 15.2% during 2022–2030, reaching \$665.20 billion (Grand View Research, 2022). Global demand for ecotourism is driven primarily by increasing popularity of immersive travel, outdoor recreational activities, solo travel, rapid urbanization, and growing awareness of tourism’s adverse impact on the environment (ibid). Apart from financial motivations, strong arguments exist for the region to adopt a more sustainable tourism model, given the impact of climate change on the sustainability of the sun-sand-sea model (previously discussed) and the contribution of the current extractive model to water and air pollution and to added pressure on waste management systems (Nurse & Greene, 2015).

The region’s abundance of natural resources and rich biodiversity provide natural competitive advantages for the development of ecotourism. Consider, for example, the fact that the region is home to 11,000 plant species of which 72% are endemic, and 7% of the world’s total coral reef ecosystems are found in the Caribbean—with the second and third largest reefs off the shores of Belize and

the Bahamas respectively (CEPF, n.d.). The high proportion of endemism in the region’s terrestrial ecosystem makes it one of the greatest centres of biodiversity in the world (European Commission, n.d.-b). As noted above, Jamaica has already been exploring ecotourism opportunities; Dominica for example has over a dozen ecolodges and hotels focused on reducing their carbon footprint (Active Caribbean Travel, n.d.).

Relatedly, many CARICOM islands have begun proposing the blue economy as the new frontier for the sustainable development of their economies. Being completely engulfed by the sea, not only is that sector highly significant for the islands’ tourism product, but it can also serve as an important resource for carbon sequestration. For instance, seagrass is an underrated but immensely valuable asset growing throughout the Caribbean where four genera can be found, notably: *Thalassia*, *Halophila*, *Halodule*, and *Syringodium* (Gran Seaflower, n.d.). Seagrass not only provides vital shoreline protection for the region but has significant capacity for carbon absorption, acting as a sediment trap that captures carbon, stores it, and deposits it into the seafloor (ClientEarth, 2021). In fact, one report noted that although seagrass only occupies 0.2% of the seafloor, it accounts for 10% of the ocean’s capacity to store carbon from the atmosphere and does so 35 times faster than tropical rainforests (UNEP, 2019). As seagrass restoration efforts are being scaled up across countries, opportunities may exist for the region to export some of its seagrass to assist in these initiatives, but this remains an area where greater research is needed. Given the value of the blue economy in the region, a more concerted attempt should be made to raise these issues in WTO committees and possibly create a work agenda on the topic.

Finally, many CARICOM countries have expressed an interest in participating in carbon market schemes and to get “carbon credit” thereunder given their low GHG emissions. For instance, in its second NDC, Guyana committed to “continue to test and refine the economic viability of REDD+ payment schemes” relating to its forest cover;²⁷ Barbados indicated an interest in updating its GHG inventory

27. REDD+ is a framework created by the UNFCCC Conference of the Parties to guide activities in the forest sector that reduce emissions from deforestation and forest degradation, as well as the sustainable management of forests and the conservation and enhancement of forest carbon stocks in developing countries.

to facilitate the creation of a Monitoring, Reporting, and Verification (MRV) system to enable Barbados to participate in international carbon markets, allowing for the sale of up to 50% of any certified carbon credits generated between 2020–2030; and Jamaica has developed a draft Carbon Emissions Trading Policy 2010–2030 which establishes the guidelines and terms underpinning Jamaica's participation in carbon markets to assist the country in realizing a portion of its quantified emission reduction targets as well as move it towards achieving the national sustainable development goals.

Establishing market-based carbon trading mechanisms is also a principle enshrined in Article 6 of the Paris Agreement, but on which there has been limited traction in climate negotiations. There may be an opportunity for CARICOM member states to initiate conversations at the WTO to make carbon trading a trade issue. For this to happen, an accompanying agenda at the WTO that encourages countries to form a common basis for measuring, monitoring, and verifying carbon emissions would assist CARICOM states that currently lack the capacity to fully participate in those discussions.

4. Conclusions and Recommendations

Recognition of their special circumstances, and targeted responses by the global community to address these circumstances is indispensable for CARICOM member states to weather the impacts of climate change. The IPCC Working Group II Report 2022 highlights not just the scientific, human, and institutional threats that the region will face, but also some of the adaptation responses that are critical for its continued existence.

One sphere of economic governance that the region has not employed to greatest effect is its regional, bilateral, or multilateral trade policy. While other countries and regions are moving ahead with the important task of integrating trade into their development, sustainability, and climate agendas, the region has not defined or clearly articulated for itself a trade strategy that reflects its climate priorities and which can be deployed with full effect in its trade relations with its bilateral trade partners and multilaterally at the WTO.

Of course, any trade policy should emerge from an indigenous green industrial policy that integrates trade as one of the key levers or tools for achieving sustainable outcomes. For the Caribbean region, that policy should include the development of a green energy sector, promoting energy efficiency and reducing reliance on fossil fuels, and developing the blue economy. These priorities can be given effect through trade tools such as tariff policies that encourage environmental goods and discourage trade

in inefficient goods and services; the granting of renewable energy subsidies; use of green government procurement policies; generation of export credits and trade financing for green sectors; pro green investment policies; sustainable food practices; green labels and credentials; and environmental regulation and certification (Nurse & Greene, 2015).

In the sections above, we have outlined specific areas in the current and future negotiations at the WTO where CARICOM countries can promote their climate-related trade interests. In turn, the WTO can do more to be responsive to the needs of CARICOM member states, even as they are still evolving. To be part of the “green, low-carbon revolution,” all countries, from the largest to the smallest must feel that the WTO is a forum that cares about their defensive and offensive interests when it comes to the environment. In this connection, and as the WTO begins to think seriously about how to engage more purposively in work on climate change, we propose a number of initiatives that might assist in securing the participation of CARICOM countries.

- (i) **The WTO membership should recognize the specific needs of small island developing states as it relates to environmental vulnerability.** While there is a recognition of LDCs as deserving of special attention across all negotiating spheres at the WTO, SIDS have not yet been formerly recognized as a grouping at the WTO. This contrasts markedly with other climate-

related governance regimes and legal instruments like the UNFCCC and Paris Agreement where the vulnerability to climate change of island economies is reflected in differentiated obligations towards them by other countries. The work of various regional and international agencies in developing climate vulnerability indices proxies should be better integrated into the ongoing negotiations at the WTO.

- (ii) **The WTO should undertake more technical work on the trade and climate interface.** The WTO's comparative advantage as an international organization lies in its technical work on trade-related issues. For many WTO members, and especially smaller ones like CARICOM countries, analytical work is still required on the impacts of climate change on their economies, and in particular on their trade competitiveness. The WTO Secretariat can assist by prioritizing work that helps countries of the region to answer: where are the new green opportunities in global value chains for CARICOM firms? which are the trade related goods, services, and sectors that require more liberalization and which should be protected? what types of international standards should be prioritized to ensure that CARICOM products are able to compete in international markets? what types of renewable energy subsidies should governments provide to accelerate the green transition?
- (iii) **Greater coordination of the work of the UNFCCC and the WTO is needed.** Many countries adopt a siloed approach to their work programmes under climate change and the trade. By working more closely with the UNFCCC Secretariat, the WTO can encourage greater collaboration of climate with trade goals and assist countries in taking a holistic approach to their international obligations. For instance, NDCs can be effectively utilized as a basis for identifying trade-related needs of countries, and technology needs assessments developed under the aegis of the UNFCCC can be taken into account more fully in WTO negotiations such as those involving technology transfer and aid for trade.

- (iv) **Better coordination is required across WTO work programmes on climate-related trade work.** The urgency and ubiquity of the climate change crisis means that it will increasingly feature, not just in the work of the dedicated environment committees and initiatives such as the Committee on Trade and Environment and TESSD, but in practically all spheres of the WTO's work programme, including newer emerging issues such as gender. In order to keep track of how climate change is affecting trade of WTO members, there needs to be a centralization and coordination of efforts. Consideration might be given, for instance, to instituting a reporting mechanism in each committee to the Committee on Trade and Environment or General Council to report on climate-related aspects of ongoing work. This reporting mechanism would not only alert the membership of developments on climate change, but also increase their interest in that work.
- (v) **Carrots, not sticks:** For many countries, the WTO is not considered a helpful partner in the transition to low-carbon economies; in fact, and despite recent attempts to change that image, it is still considered part of the problem and not the solution. In the case of small economies, the perception may even be that the WTO is irrelevant to their needs and a place still dominated by a first-world agenda: carbon border adjustment mechanisms, elimination of fossil fuel subsidies, negotiations on trade in environmental goods and services; and promotion of carbon standards and labels. While these are important topics, they do not reflect the top priorities and offensive interests of many SIDS which need the trade rules to provide new opportunities for trade diversification and revenue generation, and to assist them in accessing the new technologies needed to transition. The WTO should therefore embrace topics such as technology transfer and climate finance, which the developed world has been slow to move on, and act as a key broker in bringing together relevant stakeholders, as it has done for the fisheries subsidies negotiations as well as the COVID-19 vaccines.

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ANNEX. Excerpts from CARICOM Countries' Nationally Determined Contributions

Country	NDC Summary	Mitigation Scope & Sectoral Coverage	Adaptation Vision & Priorities	Financial Needs for Mitigation and Adaptation Action	Loss & Damage	Relevant Document	Share of Global GHG emissions
Antigua and Barbuda	For the energy sector, the two main targets are - 86% renewable energy generation from local resources in the electricity sector by 2030 and 100% of new vehicle sales to be electric vehicles by 2030.	Energy, Waste, Agriculture, Forestry and Other Land Use	Antigua and Barbuda is currently preparing its National Adaptation Plan (NAP), which will be submitted to the UNFCCC by 2022. This NAP project aims to contribute to the achievement of the 2015 Paris Agreement's global goal on adaptation by mainstreaming evidence-based adaptation planning processes and implementation into the day-to-day operations of Antigua and Barbuda's public and private sectors.	<p>Conditional financial needs The indicative cost for Antigua and Barbuda's identified NDC measures through 2030 is between USD 1 billion and USD 1.7B for mitigation and adaptation actions.</p> <p>Other non-financial support needs The mitigation and adaptation targets presented in this NDC are contingent upon receiving international support for technology transfer, capacity-building and financial resources, including through the Green Climate Fund (GCF), the Adaptation Fund (AF), multilateral and bilateral agreements and the local private sector.</p>	Economic and natural disaster shocks put an estimated 8.4% of the country's GDP at risk. Between 2015 and 2020, the combined cost incurred to Antigua and Barbuda from tropical storms and hurricanes was USD232 million.	2020 NDC (Updated First NDC)	0.00%
The Bahamas	The Bahamas 2030 targets are: 30% GHG emission reduction compared to its BAU scenario. At least 30% of renewables in the country's energy mix. Electric and hybrid vehicles represent 35% and 15% of total vehicle sales, respectively.	Energy, Transport, Industrial Processes and Product Use, Land use, Land-use Change, and Forestry and Waste	The Bahamas will build on existing national plans like the: National Tourism Development Strategy 2017-2022, National Development Plan: Vision 2040, The Environmental Planning and Protection Act (2019), Disaster Preparedness and Response Act (2010), National Policy for the Adaptation to Climate Change (2005).	N/A	N/A	2020 NDC (Updated First NDC)	0.01%

Country	NDC Summary	Mitigation Scope & Sectoral Coverage	Adaptation Vision & Priorities	Financial Needs for Mitigation and Adaptation Action	Loss & Damage	Relevant Document	Share of Global GHG emissions
Barbados	<p>Barbados adopts the following ambitious contributions:</p> <p>(1) 20% reduction relative to business-as-usual emissions in 2025 without international support (unconditional).</p> <p>(2) 35% reduction relative to the business-as-usual emissions in 2025 conditional upon international support.</p> <p>(3) 35% reduction relative to business-as-usual emissions in 2030 without international support (unconditional).</p> <p>(4) 70% reduction relative to business-as-usual emissions in 2030 conditional upon international support.</p>	<p>Energy, Transport, Industrial Processes and Product Use, Agriculture, Land use, Land-use Change, and Forestry, Waste</p>	<p>The Government of Barbados will ensure a protected environment, a stable society and a sustainable and resilient economy. Accordingly, Barbados will put policies in place to seek to be, by 2030, the first 100% green and fossil-fuel free island-state in the world. (p. 6)</p> <p>Barbados also will build on national plans/policies like 2021 Physical Development Plan Amendment (p. 5) Roofs 2 Reefs Programme (R2RP) (p. 5) Proclamation of the Planning and Development Act (p. 6) Water resources: National Water Reuse Policy, Green Paper on 2020 Water Protection and Land Use Zoning Policy;</p>	<p>Conditional financial needs Barbados continues to call for priority international support for adaptation and mitigation in small islands, climate finance and other means of implementation being key to their sustainable development. Barbados is fully aligned with the positions of the AOSIS, which seeks significantly scaled-up, new, additional, and predictable financial resources, including increased support for adaptation and green recovery packages, while seeking to ensure adaptation measures are country-driven. (p. 6). Far greater emphasis is needed on mobilizing adaptation funding. Barbados, therefore, welcomes the aims of the Updated Strategic Plan of the Green Climate Fund for a 50:50 balance between mitigation and adaptation over time and for a floor of 50% of the adaptation allocation for SIDS, amongst others. (p. 31)</p> <p>Other non-financial support needs When referring to the vulnerability of Barbados, it is key to emphasize the important request of the Government of Barbados for an international agreement on a Multidimensional Vulnerability Index to replace the historic per capita income criterion. (p. 6)</p>	N/A	2020 NDC (Updated First NDC)	0.01%

Country	NDC Summary	Mitigation Scope & Sectoral Coverage	Adaptation Vision & Priorities	Financial Needs for Mitigation and Adaptation Action	Loss & Damage	Relevant Document	Share of Global GHG emissions
Belize	Targets included in this updated NDC are estimated to avoid a cumulative emissions total of 5,647 KtCO ₂ e between 2021 and 2030 (peaking at 1,080 KtCO ₂ e in avoided emissions in 2030). 10 Key sector targets include: a 63% increase in GHG removals related to the AFOLU sector and an increase of renewable energy projects in the grid connected. Targets also include a number of sectoral actions to build resilience and develop capacity to adapt to the impacts of climate change in key economic sectors and supporting systems.	Land-use Change and Forestry, Agriculture, Waste management	The National Climate Resilience Investment Plan 2013 - provides the framework for an efficient, productive and strategic approach to building economic and social resilience and development. Special importance is given to building climate resilience and reducing disaster risk (p. 8) National Climate Change Policy, Strategy and Action Plan (NCCPSAP) (p. 9) Integrated Coastal Zone Management (ICZM) Plan (p. 9) National Land Use Policy (2019) (p. 9) National Biodiversity Strategy and Action Plan (2016) (p. 9)	Unconditional financial needs Total Unconditional: \$172,351,424 (p. 31) Coastal and marine resources, unconditional: \$23,934,740 (p. 31) Agriculture, unconditional: \$41,474,000 (p. 31) Water resources, unconditional: \$14,112,000 (p. 31) Tourism, unconditional: \$18,604,715 (p. 31) Fisheries and aquaculture, unconditional: \$12,228,000 (p. 31) Human health, unconditional: \$4,300,000 (p. 31) Land use, human settlements and infrastructure, unconditional: \$57,697,969 (p. 31) Conditional financial needs Total Conditional: \$145,776,687 (p. 31) Coastal and marine resources, conditional: \$11,750,000 (p. 31) Agriculture, unconditional: \$72,000,000 (p. 31) Water resources, conditional: \$11,005,112 (p. 31) Tourism, conditional: \$16,950,000 (p. 31) Fisheries and aquaculture, conditional: \$750,000 (p. 31) Human health, conditional: \$8,271,575 (p. 31) Land use, human settlements and infrastructure, conditional: \$25,050,000 (p. 31)	In the agriculture sector, Belize expects a projected loss of production within the range of 10% to 20% which could lead to million dollars in lost revenue by the year 2100. The fisheries sector is also under threat from warmer sea surface temperatures, ocean acidification, sea-level rise, and extreme weather events. A decline in this industry can significantly affect Belize's food security as well as GDP. It would also affect over 3,500 licensed fishers, which could lead to an annual loss of approximately USD\$ 12.5 million per year. (p. 6)	2020 NDC (Updated First NDC)	0.01%
Dominica	This is a total emissions reduction target from the baseline year (2014) and involves progressive reduction of total greenhouse gases for each of the target years: - 39% by 2025 - 45% by 2030; - 100% renewable energy usage by 2030, mainly from geothermal sources, also from synthetic fuels - From 2027, 200Gg+ geothermal energy export to French Territories: Martinique, Guadeloupe - ~648Gg annual forest carbon sequestration from 2020-2025 and ~621Gg from 2025-2030.	Energy Industries, Agriculture, Transport, Manufacturing & Construction (Commercial/ Institutional, Residential), Fishing, Solid Waste, Land use, Land-use Change, and Forestry	Building on existing national plans/policies notably the National Climate Change Policy and Action Plan (NCCPAP)	N/A	N/A	2020 NDC (Updated First NDC)	0.00%

Country	NDC Summary	Mitigation Scope & Sectoral Coverage	Adaptation Vision & Priorities	Financial Needs for Mitigation and Adaptation Action	Loss & Damage	Relevant Document	Share of Global GHG emissions
Grenada	Grenada commits to reducing its GHG emissions by 40% of the 2010 emissions levels by 2030. This submission includes a section on co-benefits of adaptation actions.	Energy (including domestic transport). Forestry, Waste, Industrial Processes and Product Use (Cooling sector) As per paragraph 31(C) of decision 1/CP.21, Grenada is committed to expanding the scope of the coverage of its NDC to all categories of anthropogenic emissions	N/A	N/A	Given Grenada's vulnerability to negative sudden and slow onset processes and events such as hurricanes, floods, and environmental degradation, Grenada will continue to build coherence with the NDC and NAP to comprehensively address loss and damage. In addition, the Government acts within the guidelines of the Sendai Framework for Disaster Risk Reduction 2015-2030 to protect development gains from the risk of disaster. (p. 9)	2020 NDC (Second NDC)	0.00%
Guyana	The major overarching contribution that Guyana intends to make is to pursue a path to a Green economy using a low emission strategy pathway. Guyana has already formulated a Low Carbon Development Strategy (LCDS) and with limited financial resources, has begun implementation. With additional and adequate resources, Guyana can build on this and embark on a comprehensive path to a low emission and green economy. More specifically, with the provision of adequate resources, Guyana can provide up to 52Mt CO2 equivalent to global mitigation effort, and can increase its share of renewable energy by 20% of its total energy usage, by 2025.	Forestry and Energy	Climate Resilience Strategy and Action Plan (CRSAP) (p. 12)	Conditional financial needs In order to implement its conditional adaptation actions, including infrastructural development works, Guyana will require an estimated US\$ 1.6 Billion in the period to 2025. (p. 13)	N/A	Only First NDC	0.04%
Haiti	With the implementation of mitigation measures, emissions will increase from 18,970 ktCO2e in the Reference Case to 17,774 ktCO2e in the Unconditional Case and 12,938 ktCO2e in the Conditional Case. This represents a net reduction in emissions of 32% by 2030 compared to the reference scenario, of which 6% unconditionally.	Energy, Agriculture, Forestry and Other Land Use, Waste	Build on National Low Carbon Development Strategy.	N/A	N/A	2020 NDC (Updated First NDC)	0.02%

Country	NDC Summary	Mitigation Scope & Sectoral Coverage	Adaptation Vision & Priorities	Financial Needs for Mitigation and Adaptation Action	Loss & Damage	Relevant Document	Share of Global GHG emissions
Jamaica	Jamaica's target to reduce emissions relative to business-as-usual by 2030, covers the energy sector (supply and end-use) and land-use change and forestry. The inclusion of the land use change and forestry is a new addition to Jamaica's NDC. Jamaica's target is to achieve 25.4% reduction relative to business-as-usual emissions in 2030 without international support (unconditional), 28.5% reduction relative to business-as-usual emissions in 2030 conditional upon international support.	"Jamaica's target to reduce emissions relative to business-as-usual by 2030, covers the energy sector (supply and end-use) and land-use change and forestry.	Climate Change Policy Framework for Jamaica (2015), Vision 2030 Jamaica – National Development Plan, Medium-Term Socio-Economic Policy Framework (2018-2021), National Policy on Poverty and National Poverty Reduction Programme, Social Protection Strategy.	Other non-financial support needs Technology - The availability and transfer of technologies that are environmentally sound and which support low carbon and climate-resilient development is paramount. As a small island developing state these opportunities are not often readily accessible and so the spirit of the Paris Agreement would help to foster North-South Cooperation. Capacity building Support needed to apply and proliferate new ideas and technology.	N/A	2020 NDC (Updated First NDC)	0.02%
St. Kitts & Nevis	When comparing the emissions target of this NDC against a 2010 base year, this NDC translates to a 61% decrease in total carbon dioxide emissions.	All sectors, with a focus on the energy sector (power generation and transportation)	St. Kitts and Nevis aims to reduce vulnerability to the adverse impacts of climate change through cross-sectoral and multi-faceted measures that build adaptive capacity and resilience over the long-term. There is also the National Climate Change Policy and National Climate Change Adaptation Strategy (p. 4). In 2021, during development of the St. Kitts and Nevis Third National Communication to the UNFCCC and development of this NDC, further stakeholder consultations on adaptation were held. Using a participatory approach, a range of stakeholders were identified, and prioritized additional adaptation needs not included in the National Climate Change Adaptation Strategy. Multi-criteria analysis was used to prioritize adaptation measures based on (i) contribution to social equity, (ii) ease of implementation/feasibility, (iii) sustainability, scalability, and replicability, (iv) effectiveness and impact and (v) potential environmental risks. (p. 4-5)	Conditional financial needs Total: 127 million USD (p. 18) Inter-sectoral coordination and stakeholder capacity building: \$755,000 (p. 19) Information management, research and M&E for decision-making: \$8,000,000 (p. 19) Climate smart agriculture: \$14,230,000 (p. 19) Integrated water resources management: \$70,850,000 (p. 19) Climate change and disease prevention: \$4,950,000 (p. 19) Integrated coastal zone management: \$12,900,000 (p. 19) Climate proofing tourism: \$15,450,000 (p. 19)	Current Economic Loss The increasing intensity of tropical cyclones and resultant damages have been strongly linked to the drivers of climate change. In the 1989-2017 period, St. Kitts and Nevis has experienced impacts from twelve tropical cyclones, amounting to over US\$700 Million in damages. These storms have affected all sectors of the country, with particularly severe impacts for agriculture, critical infrastructure, transportation, housing, tourism, electricity, and water." (Future Economic Loss Depending on the global warming scenario, annual damages from tropical cyclones in St. Kitts and Nevis may increase by approximately 7-12% by 2040 and by approximately 8-33% by 2080. The relative change in 1-in-100-year expected damages from tropical cyclones is expected to increase by 5-9% by 2040 and by 6-23% by 2080, meaning that the risk of extreme damages is projected to increase substantially. These projections do not consider non-economic loss and damage and the potential irreversible losses associated with extreme events. (p. 13)	2020 NDC (Updated First NDC)	0.00%

Country	NDC Summary	Mitigation Scope & Sectoral Coverage	Adaptation Vision & Priorities	Financial Needs for Mitigation and Adaptation Action	Loss & Damage	Relevant Document	Share of Global GHG emissions
St. Lucia	Saint Lucia's NDC is mitigation-centric and the NDC's target is 7% Greenhouse Gas (GHG) emissions reduction in the energy sector relative to 2010, by 2030. Saint Lucia's target is a sector-wide emissions reductions target using 2010 as base, covering IPCC's energy (electricity generation and transportation) sector, and three gases: Carbon Dioxide, Methane, and Nitrous Oxide. The target is a continuation and expansion of efforts listed in the first NDC to meet the targets for 2025 and 2030. Saint Lucia's updated First NDC also includes an adaptation component.	Energy (electricity generation and transportation)	National Adaptation Plan for Saint Lucia (2018); Sectoral Adaptation Strategy and Action Plans.	N/A	Potential loss and damage will result from storm surges and salt water intrusion into freshwater supplies and agricultural land, frequent flooding and water shortages, which would lead to decreased food availability and security as well as permanent loss of territory due to sea level rise.	2020 NDC (Updated First NDC)	0.00%
St. Vincent & the Grenadines	St. Vincent and the Grenadines intends to achieve an unconditional, economy-wide reduction in greenhouse gas (GHG) emissions of 22% compared to its business as usual (BAU) scenario by 2025.	Energy (including domestic transport), industrial processes and Product Use, Agriculture, Land use, Land use Change and Forestry, Waste	National Climate Change Policy (p. 9) and The Pilot Programme for Climate Resilience (PPCR) (p. 9).	N/A	St. Vincent and the Grenadines have suffered significant impacts over the past five years (2010 to 2014) as a result of severe weather events. In total, the loss to the country was in excess of US\$600 million over that period, equating to approximately 35% of its Gross Domestic Product (GDP) (p. 1-2).	Only First NDC	0.00%
Suriname	Suriname has taken the initiative to move away from business as usual and to chart a course towards climate compatible development through an enabling framework which has included the preparation and approval of a National Climate Change Policy, Strategy and Action Plan (NCCPSAP).	Forests and Renewable Energy	National Climate Change Policy, Strategy and Action Plan for Suriname (NCCPSAP) (2014-2021) (p. 9) National Adaptation Plan (NAP) (p. 9)	N/A	The country has already experienced extensive coastal erosion, and has suffered damages from heavy rainfall, flooding, higher temperatures during dry seasons, and high winds. (p. 5)	2020 NDC (Second NDC)	0.03%
Trinidad & Tobago	Trinidad and Tobago's aim is to achieve a reduction objective in overall emissions from the three sectors by 15% by 2030 from BAU, which in absolute terms is an equivalent of one hundred and three million tonnes (103,000,000) of CO ₂ e. Trinidad and Tobago will commit to unconditionally reduce its public transportation emissions by 30% or one million, seven hundred thousand tonnes (1,700,000) CO ₂ e compared to 2013 levels by December 31, 2030.	Transportation (for unconditional target)	N/A	N/A	N/A	Only First NDC	0.06%

Source: Direct citations from Climate Watch (n.d.-a).

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